Volume 3, December 2020 ISSN: 2591 - 801X

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

DOI: https://doi.org/10.37074/jalt.2020.3.2

Contents

Contents

Book Reviews

Vol.3 No.2(2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Introduction to the sixth regular issue of JALT

Jürgen Rudolph[A] A *Head of Research & Senior Lecturer, Kaplan Higher Education Singapore; Editor-in-chief, Journal of Applied Learning & Teaching*

Shannon Tan[B] B *Research Assistant, Kaplan Higher Education Singapore; Journal Manager, Journal of Applied Learning & Teaching*

DOI: https://doi.org/10.37074/jalt.2020.3.2.1

2020 will most likely go into the annals of history as the year of the coronavirus (the electoral defeat of President Trump and Brexit are indubitably other earth-shattering events). The judgement on the responses to the pandemic in Higher Education (HE; the initial Emergency Remote Teaching has since made way to more sophisticated and better-prepared approaches to online learning and teaching in many cases) is still out, and in a couple of years, our assessment is bound to be less emotional (the emotional roller coasters ranged from the angst of the lockdowns to the euphoria of the vaccine discoveries) and informed by the benefit of more hindsight.

In early December of this tumultuous year, one of us (Jürgen – I henceforth use the first person singular) was invited to two conferences to present some of our ongoing COVID research (on behalf of Joey Crawford, Kerryn Butler-Henderson, Karima Lalani, and Shannon Tan), and my experiences were thought-provoking. Surprisingly, one of the conferences was conducted face-to-face. The precautionary measures undertaken by the conference organisers – the conference was held in a hotel in Singapore – were nothing short of extraordinary, and special approval by the Singapore Tourism Board apparently had to be sought. There was a mandatory pre-conference briefing that meticulously explained the use of face masks, face shields, designated seats throughout the whole conference with no 'intermingling', with refreshments and lunch being served directly at the tables of a huge ballroom. There were some 30 face-to-face as well as perhaps 40 virtual participants. While the presentations were of a high quality, my experience was nonetheless somewhat surreal. I always thought that a highlight of any conference are the networking conversations with other participants during breaktime – that this time, for the most excellent reasons, were strictly prohibited. I am unsure whether under the circumstances, I may not have preferred to rather participate online in the conference.

The second conference that I recently participated in had largely Malaysian participation and was completely virtual. It used an online events platform that I had been previously unfamiliar with (hopin). It worked rather well and it even had a networking feature (where participants were randomly assigned for some kind of academic 'speed-dating'). To me, this aptly demonstrated that the pandemic has led to a sophisticated use of web-conferencing technology that all participants seemed rather comfortable with. It is unlikely that I would have attended the conference in Malaysia (the pandemic notwithstanding), which to me, is an instance of *weiji* (危機) – problems can be well-disguised opportunities. To the two authors of this Editorial, 2020 was not only the year of the coronavirus, but also a year of international collaboration as well as some milestones of our humble journal. I started to reflect on this in the June 2020 editorial (Rudolph, 2020), and already the last issue of JALT had two contributions on HE responses to the pandemic. With academics fetishising the number of citations of their work (I admit I am no stranger to that palpable excitement of checking my google scholar page), we have acquired 'bragging rights': Crawford et al.'s (2020) article entitled "COVID-19: 20 countries' higher education intra-period digital pedagogy responses" has at the time of writing been cited 173 times (and been downloaded in excess of 100,000 times via multiple locations, also thanks to the openness of the journal and the CC BY license). To the best of our knowledge, this was the first article to be (pre-)published on HE and the coronavirus, and it provided an early snapshot of 20 countries across all six World Health Organization (WHO) regions.

In the second quarter of 2020, we were involved in Bonk et al.'s (2020) exploratory case studies of a variety of universities across the globe. Some of our friends and collaborators are leading other journals (Fotini Diamantidaki and Margarita Kefalaki lead the *Journal of Education, Innovation and Communication* (JEICOM), and Joey Crawford is the editor-in-chief of the *Journal of University Teaching, Learning & Practice* (JUTLP)). Rather than competing with each other, we find it more meaningful to be mutually supportive, and we have arrived at fruitful co-operations that have led to publications on COVID and HE and beyond in all three journals. Particularly noteworthy is a collaboration with Australian and Singaporean students, entitled "Enabling cross-cultural student voice during COVID-19: A collective

autoethnography" that is about to appear in JUTLP (Wilson et al., 2020). Apart from yet another collaboration in this issue (Butler-Henderson et al., 2020a), quite a few additional exciting co-operations are in the works and will hopefully see the light of day in 2021 – which is hoped to be a much better year than 2020.

Although JALT (in terms of its publishing record) is still a toddler at the tender age of two and a half years, it is no longer a baby and it certainly feels that we have come a long way. The issue at hand is our thickest ever, and it is hoped, solely in the good sense of the word. In the past 30 months, we have published six regular and two special issues with a total of 130 articles (including peer-reviewed articles, interviews with educational thought leaders, EdTech reviews, articles of a more journalistic nature (including teaching case studies and teaching notes) and book reviews) by 160 contributors from 22 countries from all continents. The half year between May and November 2020 saw a 100% increase of article downloads which, together with a record number of article submissions, shows that our toddler is becoming increasingly popular. However, there is no rest for the wicked and we will not rest on our laurels.

While we did not conduct any symposia in the first half of 2020, no thanks to the coronavirus, we did four well-received online symposia, co-organised by Kaplan Higher Education Singapore and its partner universities' Editorial Board members of JALT. A symposium with the University of Essex (led by Stevphen Shukaitis) had the eye-catching theme *Educational alternatives. Alternative education* and was so well-received that we were compelled to stretch it over two days. Rob Burton (Griffith University) led a symposium on Nursing Education, Peter Waring (Murdoch University) a more generally-themed symposium on Applied Learning & Teaching, and Lena Itangata (University of Portsmouth) a symposium that was focused both on students' employability as well as more academic exchanges.

This sixth issue of JALT has a wealth of articles and there are some not initially intended themes in this issue, the first, inevitably, being COVID and education. Kerryn Butler-Henderson and others present the first peer-reviewed article in this issue, entitled "COVID-19 in Higher Education Literature Database (CHELD V1): An open access systematic literature review database with coding rules". The article is linked to an open access database (Butler-Henderson et al., 2020b) which we hope will be used by other researchers. Rather than every single researcher 'reinventing the wheel' and painfully combing through databases, it is hoped that this database provides an open-access resource to support future learning and teaching scholars to gain timely access to pre-examined literature on higher education during COVID-19.While the database version 1.0 only covers the first half of 2020, it may soon be updated. Butler-Henderson et al.'s article documents the method for the creation of the first version of the CHELD. 138 articles were eventually selected, using a rigorous systematic review method and tools (PRISMA approach, Mixed Method Appraisal Tool (MMAT), Quality Assessment Tool for Theory and Literature (QATTL)).

A second article on COVID and HE is contributed by Hilda Mulrooney and Alison Kelly. Their article "Covid 19 and the move to online teaching: impact on perceptions of belonging in staff and students in a UK widening participation university" is based on mixed-methods research at Kingston University. The lockdown and resultant emergency remote teaching reduced feelings of belonging amongst both students and staff, and while the benefits of online learning were acknowledged, both sample groups predominantly disagreed that remaining online would lead to a better educational experience as opposed to eventually returning to face-to-face learning and teaching.

Another valuable perspective on the pandemic brings us to the United Arab Emirates. Doaa Alterri and co-authors' article "Transition to distance learning during the COVID-19 pandemic: Efforts within the Higher Education sector in the United Arab Emirates" reconstructs the UAE government's decision to close all higher education institutions' facilities in March 2020 as a precautionary measure to contain the virus. The authors investigate the readiness and preparedness of several institutions of higher education in the UAE and highlight various foundations and educational platforms that were adopted to facilitate continued learning amidst the pandemic. Alterri et al.'s research usefully provides five university case studies and describes the implementation of preparedness plans, explanation of readiness and transition to distance learning, challenges encountered and solutions.

A fourth and final article on the pandemic and HE is provided by Thathsara Maddumapatabandi and Kelum Gamage. Their article's title is: "Novel Coronavirus (COVID-2019) pandemic: Common challenges and response from Higher Education providers". It provides a more big-picture, general discussion of HE responses and refers to a wide range of learning, teaching and assessment approaches and their challenges, and how they have impacted students.

Although not directly focused on the pandemic, Yewande Akinola and co-authors' article "Virtual Reality as a tool for learning: The past, present and the prospect" surveys a fascinating aspect of virtual learning and teaching. Virtual Reality (VR) is a rapidly growing area in education, and schools and training institutes have been utilising it to improve students' learning experience, create an interactive environment, and build students' confidence. Yet, the vast benefits of VR have yet to be fully explored in all fields of endeavour. Thus, the article by Akinola et al. also discusses future applications of virtual technologies and their potential in various disciplines.

Christopher Harris (JALT's co-founder and former co-editor-in-chief) and Hazel Tan discuss how blended teaching and learning can be successful in the Singapore context. In "You can teach old dogs new clicks – the importance of teacher use of online content in a blended higher education course in Singapore", Harris and Tan investigate the effects of instructors' use of online learning materials on the subsequent out-of-class online participation of students enrolled in a blended learning course. The purpose of their study was to identify concerns which determine the learning outcomes and participation of teaching and learning activities in the Singapore context. It was found that the

teacher's use of the online content in the physical class had a positive effect on students' subsequent online participation out-of-class. These findings suggest that educators may consider integrating online content synchronously in the physical class, rather than designating it as supplementary.

Sina Erdal and Andrew Wood investigate "Diverse student bodies and diverging performance trajectories", in particular the divergence of performance between British and Chinese students as they progress through their degree studies in the UK. A large dataset was utilised to allow for classification of students according to their previous educational experience. This allowed the researchers to investigate the different progression trajectories. Results show that students who progress with identical grades subsequently experience a systematic divergence of performance that depends on the subject they are studying and their previous educational experience. The performance of Chinese students was comparable or even superior to other international students and those from the UK, especially for quantitative courses. Erdal and Wood's findings facilitate the understanding of student achievement and have practical implications for student recruitment, curriculum design and student support. Ian Van Deventer, in "A conceptual review of demerit points as punishment and social necessity", investigates students' learning behaviour in relation to the use of electronics during class. With the proliferation of, and easy access to, technologies such as smartphones, laptops, and tablets, students would inevitably engage in non-academic activities during lessons, eventually distracting themselves and others in the classroom. To combat such disruptive behaviour, van Deventer controversially suggests that an application of motivation theory (reward and punishment) in the form of giving demerit points could encourage increased academic achievement in students.

In his startlingly-titled conceptual article "To tell the truth sometimes it pays to lie", John Hulpke discusses the appropriateness of lying. Immanuel Kant's ethical rigourism preached the biblical "Thou shalt not lie" and the German philosopher advised his followers that one must always tell the truth. However, Hulpke quite persuasively argues that life is more complex than that, and on occasion, lying may be necessary. Hulpke provides specific examples and mini-cases related to lying and convincingly shows their applicability in facilitating conversations in the classroom or online.

Kayla Waters's "Slacking on: Lean practices in applied education" is a thought-provoking piece that is highly recommended to all overworked academics – in other words, all academics. Waters proposes a "lean" resourceful approach to career management to address risk, optimise student and community outcomes, and sustain effective engagement over time. The lean approach teaches individuals to eliminate tasks from our to-do-list, or to do tasks poorly on purpose! The deliberate action is to create the necessary slack to treat top priorities and selected tasks carefully with the respect they deserve.

Another excellent and important article is provided by Kyriaki Koukouraki. The centrepiece of her article is the concept of critical global citizenship – an admirable concept in the age of populism – and Koukouraki provides examples from the English for Academic Purposes (EAP) classrooms. In her conceptual contribution, Koukouraki argues against the neoliberal approach towards 'global citizenship' and the Westo-centric hegemony associated with it. In her historically and philosophically-informed piece, Koukouraki provides practical examples of how critical global citizenship within HE may be fostered by focusing on critical thinking and intercultural competence.

While our journal focuses on HE, we are also open to outstanding pieces on other educational realms. The last two articles in the peer-reviewed section thematise secondary schools in the UK and in Uganda. Qing Li and her distinguished co-authors write about "Dynamics in a Mandarin lesson in a British secondary school: Asymmetric power and teacher-student rapport management". Using conversation analysis, their study reveals the asymmetric power between the teacher and students and how the teacher managed the teacher-student rapport in the class. Different types of power are observed (reward, coercive, expert and legitimate power) during the lesson, and Li et al.'s study also shows how an experienced teacher successfully manages a class and achieves educational goals.

Kizito Omona and co-authors' "Influence of parent-teacher interactions on initiation of sexual practices among teenagers: A qualitative study of Kawuku S. S Mukono District, Uganda" provides intriguing insights into an African country that most readers may know little about. In line with the intended global outreach of JALT, we were certainly thrilled to receive our first article from Uganda, after previously having received some contributions from Nigeria. The authors investigate the influence of parent-teacher interaction on the sexual behaviours of young people. A series of interviews and focus group discussions were held to investigate the interactions and impact on the sexual decision and practices of young people. Omona and co-authors' results show that appropriate sexual information and adequate interaction tend to lead to positive sexual behaviours and delayed sexual debut.

From the second regular issue of JALT onwards, we have interviewed educational thought leaders such as John Biggs, Stephen Brookfield and George Siemens. This time, we had the honour of interviewing the Vice Chancellor of the University of Buckingham, Professor James Tooley who variously has been called "the high priest of privatised education in Britain" (Wilby, 2013) and a "21st century Indiana Jones" (Coulson, 2007).

The interview was originally planned together with Dr Stefan Melnik (a mentor and friend of one of the co-authors: Jürgen; and also a friend of James Tooley) who sadly passed away before the interview was conducted. Stefan Melnik was a brilliant adult educator and charismatic, cross-disciplinary intellectual who is very much missed by his many friends and former trainees.

To us (we are admittedly biased), the extensive interview with James Tooley is one of the highlights of the issue. Tooley discusses his ground-breaking research on low-cost private education in developing countries. He has

co-founded (chains of) low-cost schools in Ghana, India, Honduras and, most recently, in England. We focus on James Tooley's fascinating research on private education for the poor, but also touch on a wide range of other topics, such as his unjust imprisonment in India, his own private school ventures in four continents, and the question of whether higher education is largely signaling or if it truly builds human capital. Despite his recent appointment as Vice Chancellor and the enormous pressures of leading a private university through a raging pandemic, James Tooley was most generous with his time and also contributed amazing photos to the interview.

The EdTech section has been a JALT feature since the beginning and Vanessa Stafford's excellent EdTech review "Teaching through Zoom – what we've learned as new online educators" is her second such contribution. Refreshingly, her article goes beyond a mere review of the features of Zoom – a video conferencing software that has sort of conquered the world by storm with its superior video and audio quality and intuitive features. Stafford critically discusses the pitfalls of assumption, the need for adaptability, and the importance of empathy when using tech such as Zoom. Apart from learning the technical skills, it is crucial to acknowledge that every individual learns at a different pace, and educators need to be flexible to the needs of the students.

The 'journalistic articles' section brings us back to the pandemic and starts off with Bina Rai's "A team of instructors' response to remote learning due to Covid-19. A 10.012 Introduction to Biology case study". Bina Rai showcases her remote teaching experience during COVID-19 through a case study from her work at the Singapore University of Technology and Design. Having had previous flipped classroom teaching experience was useful to Rai and colleagues, and they were able to proceed with pure online learning with minimal disruptions. She realised the importance of structure to the students and consequently made the decision to not make changes to the timetable. Each lesson started with a quiz or announcements, followed by an introduction to the topic of the day and the lesson plan. Examinations were also adjusted to take-home assignments. Such organised structure and flexibility were well-received by the students and they could continue to learn actively irrespective of the pandemic.

Gerard Clough and co-authors' "The development and delivery of a short, multi-dimensional Study Abroad programme with a twin focus on intercultural skills and employability" transports us to pre-pandemic days where study trips were still possible. Their instructional innovation paper also provides an alternative discussion of 'global citizenship' and picks up the thread from Kyriaki Koukouraki's earlier contribution in this issue. Clough et al.'s article outlines the rationale and implementation for an assessment centre approach to programme recruitment as well as a three-phase curriculum comprising (1) online and face-to-face pre-trip preparation, (2) a week-long study visit to Berlin and (3) a post-visit reflection articulated through critical-reflective writing and a group project exhibit.

Next are a teaching business case study and an accompanying teaching note by Irene Paniagua Martin (an outstanding Royal Holloway, University of London, BSc Management student at Kaplan Singapore) and Justin O'Brien (who is also a co-author of the previous article): "How Sarah Kauss turned her drinking bottle start-up S'well into a $100m enterprise". JALT encourages such collaborations between students and professors. Martin and O'Brien explore the entrepreneurial journey taken by S'well founder Sarah Kauss in an effort to counter the environmental problem of disposable plastic waste by using a double organic business strategy. S'well was created using a low budget, word-of-mouth community and unpaid celebrity endorsement strategy and was established as a fashion power brand through carefully crafted, high end, retail, and charity collaborations. This teaching case study was developed from the lead author's digital marketing coursework, and the case is designed for use in marketing, strategy and entrepreneurship under- and postgraduate modules. The teaching note is separately published.

The final section is reserved for seven book reviews. John Hulpke reviews Ashwin and others' *Reflective teaching in higher education*. The book's key thrust is how educators can facilitate students to learn in a deeper and more sustainable manner. In his humourous and idiosyncratic review, Hulpke eventually recommends to pick up the book and Stop, Look, Listen and Reflect.

Cubie Lau reviews *Innovations in Asian Higher Education*, a book edited by Zhong and others. Lau critically appraises the book's six important themes: teaching innovations, doctoral education, online and mobile education, education for sustainable development, social/community engagement, and education futures.

Bina Rai provides a second contribution to the issue with her review of Sutton and Allen's *Emotify! The power of the human element in game-based learning, serious games and experiential education*. It is argued that an effective learning game experience is highly dependent on the Emotional Intelligent Engagement (EIE) factor. As a superior practitioner of game-based learning (GBL) in her own right, Rai believes that the contents of Emotify! address concerns at both individual and organisational levels and prepare individuals for GBL as a powerful, alternative method of teaching and learning.

Mohamed Fadhil's review on Connell's *The Good University: What universities actually do and why it's time for radical change* lauds the author's eloquent writing in their coherent narrative, broad examples and pointed arguments. Mohamed Fadhil (2020) provides an assured critical overview of the recommended book's contents and reflects on the work in the context of the global pandemic.

This leaves us with three reviews of Bloomsbury publications. Bloomsbury is perhaps most famous for being the 'Harry Potter' publisher, but they are of course also a leading academic and educational publisher. Michael D. Evans contributes a fourth review (three others have appeared in previous issues of JALT) of a work that has appeared in Bloomsbury's excellent *Perspectives on leadership in higher education series*, Branson et al.'s Leadership in higher

education from a transrelational perspective. Michael Evans concludes that the concept of transrelational leadership has potential for HE institutions and is strongly preferred to managerialism. He sees Branson et al.'s book as a valuable contribution to the series and the ongoing debate on the future of universities.

Sophia Lam reviews Banegas's *Content Knowledge in English Language Teacher Education*. Lam argues that this book provides a strong argument for designing and developing English Language Teacher Education (ELTE) by a variety of educators across the globe. Finally, Eric Yeo (who was part of the JALT founding team and who continues to support us in a consultative role) provides a reflective review on a volume edited by Robinson on *Classroom behaviour management in further, adult and vocational education*. Yeo starts the book review with a reflection of his personal teaching experiences as well as peer observations. He reflects on the diversity of teaching methods and effective classroom management techniques. Upon reading Robinson's book, Yeo gained insights of classroom behaviour management across the spectrum of post-secondary education levels. He recommends that all teachers, experienced or not, should consider picking this book up, prioritise the chapters that are most relevant to them, and reflect and apply.

The usual big Thank You must go once again to our fantastic Associate Editors and Editorial Board, our peer reviewers as well as the Management of Kaplan Singapore (especially Associate Professor Rhys Johnson, COO and Provost, and Mike Christie, VP Operations) for their continued support of the JALT project. Also, our esteemed Editorial Board member and Associate Editor Nigel Starck provided critical proofreading of parts of the issue (all remaining errors are solely our fault!). We sincerely welcome all feedback and ideas.

References

Bonk, R. J., Kefalaki, M., Rudolph, J., Diamantidaki, F., Rekar Munro, C., Karanicolas, S., ... & Pogner, K. H. (2020). Pedagogy in the Time of Pandemic: From Localisation to Glocalisation. *Journal of Education, Innovation, and Communication, 2* (SI1),17-64.

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K., K. M. Sabu. (2020a). COVID-19 in Higher Education Literature Database (CHELD V1): An open access systematic literature review database with coding rules. *Journal of Applied Learning and Teaching, 3*(2), 11-16. DOI: https://doi.org/10.37074/jalt.2020.3.2.11.

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K., K. M. Sabu. (2020b). *COVID-19 in Higher Education Literature Database (CHELD). Version 1*. Institute of Research Innovation. DOI: https://doi.org/10.37074/jalt.2020.3.2.11d.

Coulson, A. J. (2007, August 6). An "Invisible Hand" up. *Philanthropy Magazine*, https://www.cato.org/publications/commentary/invisible-hand

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P., Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning and Teaching, 3*(1), 7-28. DOI: https://doi.org/10.37074/jalt.2020.3.1.7

Rudolph, J. (2020). Introduction to the fifth regular issue of JALT. *Journal of Applied Learning & Teaching, 3*(1), 5-8. DOI: https://doi.org/10.37074/jalt.2020.3.1.1

Wilby, P. (2013, November 12). Professor James Tooley: A champion of low-cost schools or a dangerous man? *The Guardian*, https://www.theguardian.com/education/2013/nov/12/professor-james-tooley-low-cost-schools

Wilson, S., Tan., S., Knox, M., Ong, A., Crawford, J. & Rudolph, J. (2020). Enabling cross-cultural student voice during COVID-19: A collective autoethnography. *Journal of University Teaching and Learning Practice, 17*(5).

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

COVID-19 in Higher Education Literature Database (CHELD V1): An open access systematic literature review database with coding rules

Kerryn Butler-Henderson[A] *A* *Associate Professor, College of Health and Medicine, University of Tasmania, Australia*

Joseph Crawford[B] *B* *Academic Division, University of Tasmania, Australia*

Jürgen Rudolph[C] *C* *Head of Research & Senior Lecturer, Kaplan Higher Education, Singapore*

Karima Lalani[D] *D* *Consultant, Baylor College of Medicine, USA*

Sabu K. M.[E] *E* *Associate Dean & Professor of Health Information Management, Manipal College of Health Professions, Manipal Academy of Higher Education (MAHE), Manipal, India*

Keywords

College;
coronavirus;
higher education;
open access database;
pandemic;
systematic review;
university.

Article Info

Received 20 August 2020
Received in revised form 28 August 2020
Accepted 28 August 2020
Available online 28 August 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.11
DOI: https://doi.org/10.37074/jalt.2020.3.2.11d

Abstract

The novel coronavirus (COVID-19) pandemic has affected every sector across every corner of the world. The higher education sector is not immune from the pandemic and is facing significant learning and teaching challenges. The existing literature databases on COVID-19 are focused on the medical elements of the pandemic. This manuscript documents the method for the creation of the first version of the COVID-19 in Higher Education Literature Database (CHELD). Our aspiration is to provide an open access resource to support future learning and teaching scholars to gain timely access to pre-examined literature on higher education during COVID-19. This first version documents 138 manuscripts published or online-first between 1 January 2020 to 30 June 2020. Using a rigorous systematic review method, engaging in the PRISMA approach, quality assessment using the Mixed Method Appraisal Tool (MMAT) and Quality Assessment Tool for Theory and Literature (QATTL), we offer a first glance at the metadata of articles published on COVID-19 in higher education during the first six months of 2020. By providing an open access database, we see the opportunities for future research as boundless.

Introduction

The first six months since the first novel coronavirus (COVID-19) case appeared in Wuhan, China, have had profound and continuing implications on the global higher education sector. Early characterisations of the 'intra-period' response have been of rapid adaptation and digitalisation (Crawford et al., 2020a). The curriculum of higher education institutions from every corner have been radically revised to suit remote, distance, online, and digital forms of delivery (e.g. Murphy, 2020). COVID-19 has had a strong and rapid influence on global Higher Education, leading in many countries around the world to the cessation of face-to-face classes and 'emergency remote teaching' and changes in assessment, as well as learning and teaching approaches and strategies (Bonk et al., 2020).

There has been a plethora of publications from biological, medical and related sciences (often pre-published in BioRxiv or MedRxiv), covering "everything from the genetics of the virus that causes the disease to computer models of its spread and the scope for vaccines and treatments" (*The Economist*, 2020c, n.p.). Some journals in the aforementioned disciplines have started to fast-track the peer-review process to accelerate the publication process (*The Economist*, 2020a). Other journals have lowered their paywalls to make research about SARS-CoV-2 more widely available (*The Economist*, 2020a). There has been an exponential increase in global research efforts to understand and control the virus (*The Economist*, 2020b). While under normal circumstances, publishing in scientific journals usually takes years, speed has become paramount and journals "have squeezed their normal processes down to days or weeks" (*The Economist*, 2020b, n.p.), thus providing physicians, policymakers, and heads of state with the latest science in order to make far-reaching decisions (*The Economist*, 2020b).

Publications on COVID-19 in relation to higher education, however, still tend to be fragmented and oftentimes microscopic, focusing on single universities and short temporal experiences during the pandemic. This observation of a relative dearth of systematic and macro-level research led our international team (based in Australia, India, Singapore and USA) to the exploration of creating a database that shares the research on higher education openly. Dating the outbreak at approximately the end of 2019, we asked the following research question:

> *Research question: Can we curate the first six months of published literature to support future researchers?*

The database that is the centrepiece of our article is the result of hundreds of research hours. For the publication, we chose an open-access journal that would be able to share the database with researchers worldwide in a no-frills way and without academic paywalls. This being a topic of grave importance, and in the spirit of knowledge-sharing, we are making the database (and of course this article, too) openly available, but ask you to cite it should you make use of it in your own work.

The literature on how individuals, institutions, and countries are responding to the challenge of COVID-19 abound; higher education literature is no exception. Higher education studies have emphasised how students and staff are responding to rapid adaptation, how institutions are managing their new commitments and new service landscape, and how institutional responses differ. These early studies, while offering unique insights to specific responses, are often poorly contextualised in the broader literature. There are a number of studies that report the same, or similar, findings with little knowledge-sharing between these.

It is understandable that, at the early stage, it is critical to rapidly share findings to enable educators and practitioners timely access to new insights. Each new study can provide novel insights, and particularly, possible opportunities to learn from mistakes of some institutions or from successes of others. This manuscript seeks to support the continued rapid-sharing of information with a timely systematic literature review of the current higher education literature. Our research objective is to examine, with rigour, the current literature and provide a curation of the literature on higher education during COVID-19. In this endeavour, we attach access to an open access and filter-able database to support scholars to examine specific areas of research (e.g. discipline-specific or country-specific research), or for practitioners/ educators seeking to understand the evidence that relates to their specific context.

This manuscript is a method paper that describes the study protocol for the development of the COVID-19 in Higher Education Literature Database (CHELD) V1.0. We focus next on defining specific elements within the database to enable our own reflexivity. It also provides scholars transferability from our context and assumptions, to their own. For example, defining paper type provides clarity of the coding rules we used. We continue to define the method for the creation of this database, and reporting on the systematic literature review process. We follow the coding rules with practical implications, future research suggestions, limitations, and formal conclusions.

Material and methods

As the database is a collection of published articles, a systematic approach was used to source the articles to capture all available articles.

Title selection procedure

A comprehensive search strategy (Figure 1) was employed using several methods of data collection to capture as many articles published between 1 January and 30 June 2020, including those published online first, that relate to the topic of COVID-19 and teaching and learning in higher education. In each method, the following search string was used for title and abstract searches:

> *[higher education OR university OR college] AND [COVID OR coronavirus]*

First, the following databases were searched, and relevant titles extracted into an Endnote library: Academic Search Ultimate, EBSCO, IEEE Xplore, Informit Online, Ovid, Proquest, ScienceDirect, Scopus, and Web of Science. Second, the search string was used in Google Scholar, with all titles saved to the Google Scholar library and then extracted into the EndNote library. Third, using the list of journals within the journal rankings subject category "Education" in Scimago (SJR) (n.d.), the first 100 journals (Appendix 1) that included the term "educat*" or "learn" or "teach" or "academic" in the title was searched for any articles published or online first, and these titles manually entered into the Endnote library. Fourth, all 2020 issues of any journal that published at least three papers selected through the first two methods, were reviewed and any relevant titles were manually entered into the Endnote library.

The eligibility criteria for inclusion are as follows. Articles that related to teaching, curriculum, education, and students, including wellbeing and impact, in higher education were included in the search strategy. Excluded articles included those about university administrative processes not related to teaching, medical or science research related to COVID-19, such as vaccine, testing, health outcomes, monitoring, virus strain or biological/health impacts. If the article was about students but not related to teaching or learning, they were also excluded. For example, if the article was examining a non-teaching issue using students as the population, such as non-curriculum information seeking behaviour, that article was excluded. Post (after) graduation education was also excluded, including residency or intern medical education or training for health care workers. Lastly, articles that were editorials, news items or non-peer reviewed pieces were excluded.

Figure 1: Article selection process

Article selection procedure

Next, all records in Endnote were extracted and imported into the Covidence® online software. Covidence facilitates the application of the PRISMA approach for article selection (Moher et al., 2009). Each of the 3,945 titles and abstracts were double-screened by two of the authors using the eligibility criteria, with the whole team meeting to discuss and reach consensus where there was disagreement. A large volume of papers were related to biology or medicine, yet, were picked up because a university or university hospital was involved. As such, the number of articles that progressed to the full-text selection stage was greatly reduced, as shown in Figure 2. During this stage, the full-text of each article was double-reviewed and again discordance managed through a team consensus discussion. The papers selected through this process were accepted for the database.

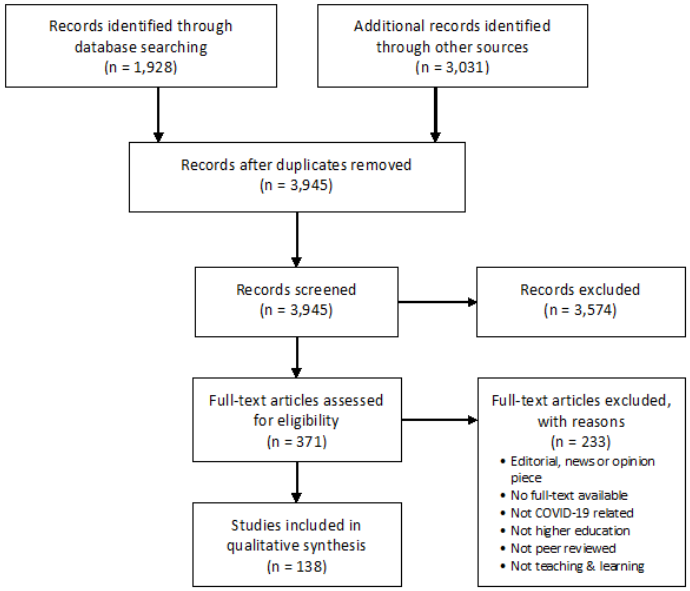


Figure 2: PRISMA article selection flowchart

Theoretical framework: Coding rules

In creating the following database, a series of theoretical assumptions were applied to the final presentation of the database. These are enumerated in Table 1. The aim of presenting the underlying assumptions was to enable our reflexivity as researchers and provide other researchers an opportunity to understand how the data can be manipulated within their own jurisdiction, institution, discipline, or context.

While many of the elements within the data are already transparent, and likely to be simply applied to future research contexts (e.g. DOI, journal metadata, and country), some require specific justification: Quality tool, quality assessment score, discipline, pandemic stage, type of study, and participant type. Each of these will be defined in more depth in the following sections.

Table 1. Description of data elements

Data element	Field type	Description
Year of publication	Numeric	The year of the manuscript publication
Month of publication	Numeric	The month of the manuscript publication
First author last name	Alphabetic	Last name of first author of the study
Quality tool	Alphabetic	Type of quality tool used (QATTL, MMAT)
Quality assessment score (QAS)	Numeric	Score derived from quality tool used for the study
Country	Alphabetic	Country of origin of the study. For theoretical papers this is the country of the authors.
State/Province	Alphabetic	State or Province of the country, if applicable
Pandemic stage	Alphabetic	The current pandemic stage defined by Crawford (2020, *in press*): rapid adaptation, improvement, consolidation, and restoration
Paper type	Alphabetic	Type of paper/article.
Type of study	Alphabetic	Type of study (Qualitative, Quantitative, Mixed Methods, Theoretical)
Methods Used	Alphabetic	Methods used, if available
Participant Type	Alphabetic	Participant type (academic, student, NA)
Discipline	Alphabetic	Broad higher education discipline groupings
Subdiscipline	Alphabetic	The higher education discipline of the study, if available
Authors	Alphabetic	Names of all authors of study
Title	Alphabetic	Study title
Journal	Alphabetic	Name of journal where study is published
Volume	Numeric	Volume number of journal where study is published
Issue	Numeric	Issue number of journal where study is published
Pages	Numeric	Page numbers in journal where study is published
DOI	URL	Digital Object Identifier of the study

Quality assessment score (QAS)

Firstly, two quality assessment tools were used: the Mixed Method Appraisal Tool (MMAT: Hong et al., 2018) and the Quality Assessment Tool for Theory and Literature (QATTL: Crawford et al., 2020b). We used these two tools to provide a rigorous quality assessment based on two categories of manuscripts: theoretical or empirical. Theoretical manuscripts were assessed using the QATTL, and empirical manuscripts were assessed using the MMAT. Where there were instances of inappropriate questions for the specific manuscript, these were excluded from the score calculation (e.g. a statistical item in the MMAT was not appropriate for a purely qualitative manuscript). After calculating specific percentages, we placed the scores into four categories: poor (0-25%), low (26-50%), medium (51-75%), and high (76-100%). Quality performance is presented below in Table 2.

Table 2. Quality assessment score distributions

Quartile	MMAT (*n* = 56)	QATTL (*n* = 83)
POOR	10.71%	12.05%
LOW	53.57%	42.17%
MEDIUM	19.64%	22.89%
HIGH	16.07%	22.89%

Discipline and sub-discipline

We aim to provide a high-level understanding of the disciplines of reference. The goal is to categorise the subdisciplines in the same way the researchers did -- for example, 'chemistry' or 'journalism'. The discipline category is grouped in four ways at the higher level, based on the subdiscipline definition: health science, humanities and social science, science technology engineering and mathematics, and others. The latter category will allow broad grouping research to occur.

Pandemic phase

Crawford (2020) characterised four phases of pandemic response: rapid adaptation, improvement, consolidation, and restoration. The goal of characterising each manuscript by these categories was to enable a live understanding of how each University and country is progressing from pre-COVID-19 to, and through, the new normal. The goal of the first phase is "to rapidly adapt core business for the new context"; the second phase is "to optimize the adapted core business to improve quality and begin to consider non-core activities"; the third phase is "to evaluate pre-pandemic measures of social, economic, and environmental success"; and, the fourth phase is "to determine what a return to business-as-usual looks like, and how it can occur" (Crawford, 2020, n.p.). It is recognised that institutions will likely go through these stages at different speeds, and some institutions may move fluidly between phases. Likewise, it is possible for an institution to exist inside of two phases, depending on their method of engagement and organisational strategy.

Type of study

The type of study is defined as: theoretical, quantitative, qualitative, or mixed methods (empirical). The method used is defined by the specific title of method presented in the manuscript. If none are described, and there is an obvious inference, we have included a placeholder. If it is not clear, it has been retained as blank.

Participant type

For participants, there are a series of possible options in the current iteration of the database: academic, student, or not available. In the next version of the database, this field will be refined and delineated into additional categories, such as academic, professional or management, undergraduate student, postgraduate student, and doctoral student. We also include three additional options: mixed staff (including two or more categories of staff), mixed students (including two or more categories of students), and mixed staff and students (for samples comprising both students and staff).

Where to next?

This manuscript provides rigorous research foundations for the current peer-reviewed research on COVID-19 in higher education, published between 1 January 2020 and 30 June 2020. For educators, this is an important resource to enable evidence-based understandings of how digital education during COVID-19 is being conducted. It also provides academic managers and leaders to learn from the successes and failings of other institutions to enrich and enable their students' learning experience and quality of life. We encourage those who work with academic institutions, or provide services to such entities, to engage in the high quality literature emerging within their specific context. This database makes the access to timely knowledge easier, with an aim to promote knowledge-sharing behaviours in higher education providers during the pandemic.

The primary limitation to this database creation was the potential for the research team to have missed manuscripts that were not uploaded online yet, despite being published as a hard copy during the inclusion window. We aim to create future versions of this database that include future time periods to pick up on the potential articles missed, and to create a living document to mitigate this limitation.

The database attached to this manuscript provides opportunities for scholars to extract specific components of the published literature for their own studies. This database, and future versions of this database will provide an opportunity for easy access to undertake future research based on a clear and transparent understanding of the database. We encourage scholars to download filtered versions of the database and draw on our systematic efforts in their own research; an appropriate citation to the database is included below and on the database itself.

A note on the importance of open access (OA) publications that have become more popular in recent years, is in order. OA benefits are numerous such as providing all users free, immediate and permanent access without an embargo period. This increases readership and visibility, maximises the impact and efficiency of the whole research process, and avoids inequalities in access - historically, research was hidden behind a paywall (Directory of Open Access Journals, n.d.; Max Planck Society, 2003; Schiltz, 2018; Science Europe, 2013). It is ironic that in non-OA journals, taxpayers do not have access to the research that they have often partially funded. In addition, publication paywalls withhold "a substantial amount of research results from a large fraction of the scientific community" (Schiltz, 2018, n.p.) Schiltz (2018, n.p.) persuasively argues that no science (including the humanities) "should be locked behind paywalls". Consequently, many funding agencies (for instance, the members of cOAlition S) now require funded research to be published as open access (Schiltz, 2018; cOAlition S, 2020).

While there is a vast array of OA options (Chen & Olijhoek, 2016; Olijhoek et al., 2015), it is Diamond OA that does not include a requirement for authors to pay author submission charges, article processing charges (APCs) or any other charges (cOAlition S, 2020; Fuchs & Sandoval, 2013). Importantly, authors retain copyright to their work. The process of scientific discovery builds on prior research and "can only work optimally if all research results are made openly available to the scientific community" (Schiltz, 2018, n. p.). A recent survey on Diamond OA journals implies that the open sharing of research data - that we advocate and practice in this article - is a particularly laudable practice that goes further than the mere open access publication of articles (cOAlition S, 2020). The CHELD goes beyond Diamond OA publishing as it constitutes open data-sharing, thus avoiding other researchers' 'double work' and providing them with a head start in addressing one of the key problems of our time, the COVID-19 pandemic, in the context of Higher Education.

Conclusion

This manuscript reports on the research and development of the COVID-19 in Higher Education Literature Database (CHELD V1). For open access to this database, see https://doi.org/10.37074/jalt.2020.3.2.11d (Butler-Henderson et al., 2020).

A rigorous systematic review method has been adopted to ensure the maximal utility of the information and metadata contained in the database. This began with an extensive search across the literature, databases, and online sources to ensure coverage of publications. We underwent a rigorous double-screening, double full-text review, and single quality-assessment process with transparent documentation to support future researchers. We also curated this list to support existing researchers to connect on their synergies with other scholars. This database is the first of its kind in the higher education literature to curate the existing literature for higher education practitioners and researchers. The consolidation of existing literature into one database will save researchers time in acquiring literature, whilst ensuring subsequent articles were informed by literature sourced from a strong methodological framework. Reducing the burden of sourcing the literature may see an increase in learning and teaching manuscripts examining the various impacts of COVID-19. Promotion of this resource will be critical in supporting COVID-19 scholarship of learning and teaching. Our aim is to update this database with additional time periods and refined coding rules at multiple junctures over the coming years to make this a robust, ongoing resource. This will provide timely access to new insights in learning and teaching as we collectively learn from the successes and failures of the collective higher education sector, and promote rigorous literature review design to advocate scholarship in learning and teaching.

Acknowledgement:

The research assistance of Shannon Tan is acknowledged with gratitude.

References

Bonk, R., Kefalaki, M., Rudolph, J., Diamantidaki, F., Rekar Munro, C., Karanicolas, S., Kontoleon, P., & Pogner, K.

(2020). Pedagogy in the time of pandemic: From localisation to glocalisation. *Journal of Education, Innovation, and Communication, 2*(1), 17-64.

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K. & Sahu, K. M, (2020). COVID-19 in Higher Education Literature Database (CHELD V1). *Institute of Research Innovation*. https://www.instituteofresearchinnovation.com/data/covid-19-and-higher-education-coronavirus. https://doi.org/10.37074/jalt.2020.3.2.11d

Chen, X., & Olijhoek, T. (2016). Measuring the degrees of openness of scholarly journals with the open access spectrum (OAS) evaluation tool. *Serials Review, 42*(2), 108-115.

cOAlition S (2020). *Plan S. Making full and immediate Open Access a reality*. https://www.coalition-s.org/

Crawford, J. (2020). COVID-19 and higher education: A pandemic response model from rapid adaption to consolidation and restoration. *In-press*.

Crawford, J., Butler-Henderson, K. Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching, 3*(1) 9-28.

Crawford, J., Butler-Henderson, K., & Kelder, J-A. (2020b). Quality assessment tool for theory and literature (QATTL): Development and validation. *In-press*.

Crawford, J., Percy, A., & Kelder, J-A. (2020c). JUTLP Editorial 17.3: Connection, digital education, and student-centric teaching practice before COVID-19. *Journal of University Teaching & Learning Practice, 17*(3), 1-5.

Directory of Open Access Journals [DOAJ] (n.d.). *Information for publishers.* https://doaj.org/publishers

Ferdig, R., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (2020). *Teaching, technology, and teacher education during the covid-19 pandemic: Stories from the field*. Waynesville, NC, USA: Association for the Advancement of Computing in Education (AACE).

Fuchs, C., & Sandoval, M. (2013). The diamond model of open access publishing: Why policy makers, scholars, universities, libraries, labour unions and the publishing world need to take non-commercial, non-profit open access serious. *TripleC: Communication, capitalism & critique, 11*(2), 428-443.

Hong, Q., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M., Griffiths, F., Nicolau, B., O'Cathain, A., & Rousseau, M. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *Education for Information, 34*(4), 285-291.

Max Planck Society (2003). *Berlin declaration on open access to knowledge in the sciences and humanities*. https://openaccess.mpg.de/Berlin-Declaration

Moher, D., Liberati, A., Tetzlaff, J. & Altman, D. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal Medicine, 151*(4), 264-249. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

Murphy, M. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy,* Advanced Online Publication.

Olijhoek, T., Bjørnshauge, L., & Mitchell, D. (2015). Criteria for open access and publishing. *ScienceOpen Research*.

Peters, M., Wang, H., Ogunniran, M., Huang, Y., Green, B., Chunga, J., & Khomera, S. (2020). China's internationalized higher education during Covid-19: Collective student autoethnography. *Postdigital Science and Education*. Advanced Online Publication.

Schiltz, M. (2018). Science without publication paywalls: cOAlition S for the realisation of full and immediate open access. *Frontiers in Neuroscience 12*, 656. https://doi.org/10.3389/fnins.2018.00656

Science Europe (2013). *Science Europe principles on open access to research publications.* http://scieur.org/opennew

SCImago, (n.d.). *SJR — SCImago journal & country rank* [Portal]. http://www.scimagojr.com

The Economist. (2020a, March 20). Coronavirus research is being published at a furious pace. https://www.economist.com/graphic-detail/2020/03/20/coronavirus-research-is-being-published-at-a-furious-pace

The Economist. (2020b, May 7). Scientific research on the coronavirus is being released in a torrent. https://www.economist.com/science-and-technology/2020/05/07/scientific-research-on-the-coronavirus-is-being-released-in-a-torrent

The Economist. (2020c, May 9). Speeding up science during the pandemic. https://www.economist.com/leaders/2020/05/09/speeding-up-science-during-the-pandemic

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

COVID-19 and the move to online teaching: impact on perceptions of belonging in staff and students in a UK widening participation university

Hilda Mary Mulrooney[A] [A] *Associate Professor in Nutrition, Kingston University London, UK*

Alison Faith Kelly[B] [B] *Associate Professor in Microbiology, Kingston University London, UK*

Keywords

Coronavirus;
COVID-19;
digital education;
higher education;
online education;
pandemic;
United Kingdom.

Article Info

Received 14 August 2020
Received in revised form 27 September 2020
Accepted 2 October 2020
Available online 2 October 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.15

Abstract

Belonging within higher education benefits students, staff and institutions. The COVID-19 pandemic necessitated campus closures at short notice, with teaching and assessment moving online. Understanding the impact of this upon belonging from both staff and student perspectives, and exploring whether demographic or study characteristics have an impact, is needed to inform future educational provision. A bespoke questionnaire collecting quantitative and qualitative information was administered online to staff and students at a UK university with a strong widening participation focus. A total of 208 students and 71 academic staff responded. Staff were significantly more likely than students to recognise belonging as important. Lockdown reduced feelings of belonging in both groups, and physical presence on campus was highlighted as important by both. Despite considerable diversity, student responses showed a high degree of homogeneity. Although advantages to future online teaching were identified by both staff and students, almost half of students disagreed that they would learn better if future teaching remained online. A greater proportion of staff identified teacher online presence and facilitating active learning as essential in helping students to belong, but what students consider essential in online teaching to enhance belonging is less clear from this data.

Introduction and literature review

The rapid onset of the COVID-19 pandemic and the risks of transmission posed by usual social contact have resulted in unprecedented changes to global higher education, both in terms of scope and pace. The so-called 'securitization' of face-to-face education in an attempt to flatten the curve of Covid transmission and to support social distancing (Murphy, 2020; Fauci et al., 2020), necessitated the movement of teaching online at short notice, the replacement of many assessments with online equivalents and cancellation of graduations. By mid-April 2020, an estimated 94% of learners enrolled in 200 countries were affected by school and college closures (UN, 2020). In the longer term, it is likely that much face-to-face teaching will be replaced with online provision, potentially impacting on both staff and student experiences. Emergency moves to online teaching are not unknown. Within the USA, damage as a result of Hurricane Katrina resulted in a semester of free online courses offered to affected students, the so-called 'Sloan semester' (Lorenzo, 2008). The potential for spread of infection on university campuses through the multiple social networks students share both within and out of class is recognised (Weedon & Cornwell, 2020), and the provision of online classes is part of contingency US flu pandemic emergency planning for many institutions (Allen & Seaman, 2010). However, the extent and scope of COVID-19 are unprecedented, and its impact longer lasting.

Much of the writing so far on pedagogy and pandemic has focused on the financial implications for institutions (e.g Bolton & Hubble, 2020), and the efforts being made to support meaningful online provision (e.g. Bao, 2020; Crawford et al., 2020; Wyres & Taylor, 2020; Longhurst et al., 2020; Huddart et al., 2020). The challenges of moving, virtually overnight, to pedagogically sound online provision have been documented (e.g. Longhurst et al., 2020; Marinoni et al., 2020; Wyres & Taylor, 2020), as well as the additional challenges posed by meaningful vocational or creative provision online (e.g. Fowler-Watt et al., 2020; Longhurst et al., 2020). Advantages and disadvantages of the move to online teaching have also been outlined (Longhurst et al., 2020; Watermeyer et al., 2020). In all, an impressive data base detailing the effects of pandemic on pedagogy in different countries has been compiled (Butler-Henderson et al., 2020a; Crawford et al., 2020), although their quality is considered to be variable (Butler-Henderson et al., 2020a,b). Although some writing has considered the impact on the mental health and wellbeing of staff and students (e.g. Sahu, 2020), little has focused on their experience and perceptions, caught up as they are in a very real human drama, experienced in the day-to-day life of an educational institution. How the pandemic may impact on perceptions of belonging for example, is unclear. Belonging, or social identity, is an important part of how we see ourselves (SIRC, 2007). Within the context of higher education, it is recognised as multi-dimensional and has been proposed to include four dimensions: social and academic engagement, surroundings and personal space (Ahn & Davis, 2019). It is known to positively impact upon student engagement and attainment (Hausman et al., 2009; Freeman et al., 2007), so enhancing feelings of belonging is important for educational institutions as well as individuals. The physical space of the campus affords students opportunities to meet each other and to develop and strengthen social relationships with each other and academic staff (Samura, 2018), which is intrinsic to developing a sense of belonging and a secure learner identity (Kahu & Nelson, 2018; Read et al., 2018).

This project aimed to explore the perceptions of staff and students in light of the closure of the campus and the move to online provision, particularly with regard to their feelings of belonging, using a bespoke questionnaire to gather qualitative and quantitative data. For context, the institution in which the data were gathered is a post-92 UK university with a widening participation focus and a diverse staff and student population. The theoretical frameworks within which this work are situated are the 'Community of Inquiry' model outlined by Garrison (2017) and Garrison et al (2000), and the four dimensions of belonging outlined by Ahn and Davis (2019). The 'Community of Inquiry' model suggests that three elements are required for meaningful online provision; namely teacher presence, social presence and cognitive presence. Ahn & Davis (2019) suggest that academic and social engagement, surroundings and personal space are all fundamental to belonging. Surroundings were fundamentally altered as a consequence of the pandemic, also impacting upon social and possibly academic engagement, while teacher presence in an online world will differ greatly from that offered on campus. We wish to explore these aspects and the impact on belonging of staff and students.

Methods

Questionnaires

Ethics approval for this project was obtained from the Faculty Research Ethics Committee. Bespoke questionnaires were developed for staff and students using Qualtrix XM to explore their experiences of emergency online teaching in the final two weeks of term. Their opinions regarding possible future online provision and the impact of this on feelings of belonging were also explored. Both qualitative and quantitative data were collected. Each questionnaire had one section collecting demographic and study/work information likely to impact upon perceptions of belonging. For students, this included age, gender, ethnicity, disability status, commuter status, living circumstances, whether or not they were first-in-family to university, year and mode of study. For staff, gender, ethnicity, disability status, mode of work, length of time spent working in higher education and level of teaching were collated.

Participants were asked whether belonging at university was important (yes, no, unsure, prefer not to say (PNS)), and to rate their personal sense of belonging and whether their feelings of belonging had changed since lockdown. Participants were asked to indicate whether being physically present at university was important for belonging. All three questions were rated using 5-point Likert rating scales (e.g. from 'yes, very important' to 'not at all').

With regard to the last two weeks of term when teaching moved online at short notice, staff and students were asked

to rate their levels of agreement with eight statements, four of which were negative and reverse coded.

With reference to future online provision, staff and students were asked to rate their levels of agreement with 12 statements (seven of which were negative and reverse coded). Participants were asked to indicate the extent to which different issues (e.g. poor information technology provision, caring responsibilities) would represent problems for them in the event of future online provision (using a 3-point rating; 'major problem', 'minor problem and 'not a problem'). An example of the student questionnaire is shown in Appendix A, with reverse scored statements indicated by 'rev'.

Qualitative data including the advantages and disadvantages of online teaching, why belonging is important and training needs were collated using open text boxes.

Administration of questionnaires

Questionnaires were generated using Qualtrics XM and administered online using personal email invitations with a link to the online questionnaire. They were sent to all under- and postgraduate students (n=1400) and staff (n=259) within the Faculty of Science, Engineering & Computing, the largest university faculty), using institutional email lists. Questionnaires were available for 8 weeks and weekly email reminders were sent to both staff and students.

Data analysis

Quantitative data were downloaded into Excel spreadsheets (Microsoft Office 2016) and coded for entry into SPSS (version 26 IBM). Perceptions of the importance of belonging, levels of belonging prior to lockdown, changes to belonging since lockdown, whether physical space impacted upon belonging as well as levels of agreement with statements related to emergency and future online provision were all analysed by demographic and study/work characteristics using Kruskal Wallis tests adjusted for ties. If $p<0.05$, posthoc Dunn's tests with Bonferroni adjustment were carried out. Reliability analysis were carried out on questions with multiple items using Cronbach's alpha (Q18, 19, 22 & 26 for students and Q13, 14, 17 & 22 for staff).

In order to compare responses between staff and students to similar questions, chi-square tests were carried out using a cut-off $p<0.05$. Reliability analysis were carried out for groups of similar statements for staff and students. Qualitative data were collated, and basic thematic analysis carried out and descriptive data of the major themes and the number (%) of responses for each were derived.

Results

A total of 71 staff and 208 students participated, response rates of approximately 27% and 15% respectively. Gender participation differed by group; 63% of staff participants were male while 64% of student participants were female. Greater ethnic diversity was apparent in student compared with staff participants, in line with the widening participation agenda of the university. Up to 10% of participants declared a disability. Student participants from approximately 30 different courses were represented (individual programmes of study are not shown). Participant demographics are shown in Table 1.

Table 1. Demographic characteristics of staff (n=71) and student participants (n=208). Data is expressed as numbers (%).

Gender[1]		***Male***		***Female***	
Staff		45 (63.3)		25 (35.2	
Students		71 (34.1)		134 (64.4)	
Ethnicity[2]	***White***	***Black***	***Asian***	***Mixed***	***Other***
Staff	49 (69.0)	4 (5.6)	4 (5.6)	4 (5.6)	5 (7.0)
Students	71 (34.1)	27 (13.0)	68 (32.7)	11 (5.3)	26 (12.5)
Disability[3]		***Yes***		***No***	
Staff		5 (7.0)		65 (91.5)	
Students		22 (10.6)		182 (87.5)	

[1]One staff member (1.4%) & two students (1.0%) did not respond; one student (0.5%) gave gender as 'other'; [2]Five staff members (7.0%) & five students (2.4%) did not respond; [3]One staff member (1.4%) & four students (1.9%) did not respond.

The majority of staff participants worked full time and taught both under and postgraduate students, with more than half having worked in higher education for more than 15 years. Work characteristics of staff participants are shown in Table 2.

Table 2: Work characteristics of staff participants (n=71). Data is expressed as numbers (%).

Do you teach.....			
Undergraduates	***Postgraduates***		***Both***
17 (23.9)	1 (1.4)		53 (74.6)
How long have you worked in higher education?[1]			
1-5 years	***5-10 years***	***10-15 years***	***>15 years***
8 (11.3)	8 (11.3)	16 (22.5)	37 (52.1)
Do you work.....[2]			
Full time		***Part-time***	
61 (85.9)		9 (12.7)	

[1]Two (2.8%) did not respond; [2]One (1.4%) did not respond.

Considerable diversity was apparent among the student participants. Just under half were aged 18-21 years, with one in five classed as a mature student (aged >25 years). All years of study were represented in study participants; the highest proportions derived from postgraduate students (26.0%) and Level 4 students (25.5%). The majority studied full time, and almost half were first-in-family to attend university. More than half spent at least 45 minutes travelling to the university, and approximately 40% indicated that they lived with other students, either in halls of residence or other accommodation. Study and additional demographic characteristic of student participants are shown in Table 3.

Table 3: Study and additional demographic characteristics of student participants (n=208). Data is expressed as numbers (%).

Age[1]				
18-21 years	*22-25 years*	*26-29 years*	*≥30 years*	
101 (48.6)	64 (30.8)	23 (11.1)	19 (9.1)	
Year of study[1]				
Level 3 (foundation)	*Level 4 (first year)*	*Level 5 (second year)*	*Level 6 (final year)*	*Postgraduate*
19 (9.1)	53 (25.5)	47 (22.6)	33 (15.9)	54 (26.0)
Mode of study				
Full time		*Part time*		
200 (96.2)		8 (3.8)		
Are you first-in-family to attend university?[1]				
Yes		*No*		
97 (46.6)		108 (51.9)		
How often does it take you >45 mins (one way) to get to university?[1]				
Never	*Seldom (≤1)*	*Often (2-3)*	*Usually*	
63 (30.3)	18 (8.7)	18 (8.7)	108 (51.9)	
Do you live with other students?[1]				
Yes, in halls of residence		*Yes, in other accommodation*	*No, not with other students*	
25 (12.1)		59 (28.5)	123 (59.4)	

[1]One student preferred not to state their age (0.5%); two students (1.0%) preferred not to state their year of study; three students preferred not to state if they were first-in-family (1.4%); one student preferred not to state their commute time (0.5%) & one preferred not to give their accommodation type (0.5%).

In terms of belonging, significantly more staff than students thought that belonging at university was important (93.0% vs. 66.8% respectively; p<0.000). By contrast, significantly more students than staff were unsure if belonging was important (20.2% vs. 2.8% respectively; p<0.000).

Significantly more students than staff felt they belonged 'a lot' at the university prior to lockdown (26.0% vs. 0.0% respectively; p<0.000). However significantly more staff felt totally at home prior to the lockdown (47.9% vs. 15.9% respectively; p<0.000). Sense of belonging was found to be reduced in both staff and students after lockdown. Both populations felt that being physically present on campus mattered in terms of belonging; a greater proportion of students than staff thought it was very important (48.6% vs. 38.0%; NS); but significantly more staff than students thought that it was a bit important (32.4% vs. 14.4%, p<0.000). Full data on belonging is shown in Table 4.

In terms of the rapid emergency move to online teaching in the last weeks of term, the structure of online classes was a useful coping mechanism for both staff and students (46.5% vs. 32.2% respectively; NS). Approximately one in five staff and student participants preferred online to face to face provision (NS), and over a third of students found online classes during lockdown reassuring. However almost half of students disagreed that they learned better online than in face-to-face teaching, and a preference for being physically present in class as opposed to online classes was expressed in both staff and students (52.1% vs. 43.3% respectively; NS). Positive aspects of the emergency online provision are shown in Table 5a, while negative aspects are shown in Table 5b.

Table 4: Perceptions of belonging at university, its importance and the impact of physical presence on campus, among staff and student participants. Data is expressed as numbers (%).

Is belonging at university important?[1]						Staff vs. students chi square test results
	Yes		*No*		*Not sure*	χ^2 18.8, df 3, p=0.000
Staff	66 (93.0)		2 (2.8)		2 (2.8)	
Students	139 (66.8)		20 (9.6)		42 (20.2)	
How much did you personally belong to the institution BEFORE lockdown?[2]						
	Yes, totally at home	*Yes, a lot*	*A moderate amount*	*A little*	*Not at all*	χ^2 62.1, df 5, p=0.000
Staff	34 (47.9)	0 (0.0)	32 (45.1)	5 (7.0)	0 (0.0)	
Students	33 (15.9)	53 (25.5)	56 (26.9)	21 (10.1)	5 (2.4)	
Has your sense of belonging changed since lockdown?[3]						
	I feel totally at home		*Moderately at home*	*Belong a little*	*Do not belong at all*	N/a
Staff	14 (19.7)		38 (53.5)	15 (21.1)	4 (5.6)	
	Lot less now	*Little less now*	*Not changed*	*Little more now*	*Lot more now*	
Students	31 (14.9)	50 (24.0)	60 (28.8)	19 (9.1)	9 (4.3)	
Is being physically present on campus important for belonging?[4]						
	Yes, very important	*Yes, a bit important*	*Maybe, maybe not*	*Not very important*	*Not at all important*	χ^2 29.2, df 5, p=0.000
Staff	27 (38.0)	23 (32.4)	7 (9.9)	10 (14.1)	3 (4.2)	
Students	101 (48.6)	30 (14.4)	18 (8.7)	9 (4.3)	40 (19.2)	

[1]One staff member (1.4%) & seven (3.4%) students gave no response; [2]40 (19.2%) students gave no response; [3]39 students (18.8%) students gave no response; [4]One staff member (1.4%) & ten students (4.8%) gave no response.

Table 5a: Positive impacts of emergency online provision in staff and students. Data are expressed as numbers (%).

I found it reassuring to have classes online[1]				Comparison of staff & student responses; chi square test results
	Agree	*Neither agree nor disagree*	*Disagree*	
Students	78 (37.5)	40 (19.2)	50 (24.0)	N/a
The structure of online classes helped me cope with the lockdown[1]				
Staff	33 (46.5)	29 (40.8)	9 (12.7)	χ^2 25.4, df 3, p=0.006. NS post Bonferroni adjustment.
Students	67 (32.2)	50 (24.0)	51 (24.5)	
I learned better in online classes compared with classes on campus[2]				
Students	25 (12.0)	44 (21.2)	98 (47.1)	N/a
I preferred online classes to being physically in class[2]				
Staff	16 (22.5)	18 (25.4)	37 (52.1)	χ^2 17.1, df 3, p=0.006. NS after Bonferroni adjustment.
Students	42 (20.2)	35 (16.8)	90 (43.3)	

[1]40 students (19.2%) did not respond to this question; [2]41 students (19.7%) did not respond to this question

Students were more likely to agree that they did not know what was happening or where to go for help; by contrast significantly more staff than students disagreed to the same enquiry (56.3% vs. 33.2%; p<0.000). Approximately one in five staff and students struggled with inadequate online provision; no significant differences between staff and students were seen. Over a third of staff and just over a quarter of students found it difficult to cope with online learning due to their home issues (e.g. childcare; p=0.06).

Table 5b: Negative impacts of emergency online provision in staff and students. Data are expressed as median with IQR and means with standard deviations ($\bar{x}$ (SD))[1].

Item	Student scores expressed as median (IQR) & $\bar{x}$ (SD)	Staff scores expressed as median (IQR) & $\bar{x}$ (SD)	Staff vs student comparison; chi square test results
I did not know what was happening or where to go for help[2]	3 (2) **$\bar{x}$ (SD): 2.5 (1.4)**	**4 (1)** **$\bar{x}$ (SD): 3.4 (0.8)**	χ^2 22.3, df 3, p=0.000.
I struggled with inadequate online provision[2]	**3 (2)** **$\bar{x}$ (SD): 2.7 (1.5)**	**4 (1)** **$\bar{x}$ (SD): 3.4 (0.8)**	χ^2 17.1, df 3, p=0.001. NS post Bonferroni adjustment.
I did not attend the online classes[3]	**4 (2)** **$\bar{x}$ (SD): 2.8 (1.6)**	**N/a**	N/a
My home issues made it difficult for me to manage[4]	**3 (2)** **$\bar{x}$ (SD): 2.5 (1.5)**	**4 (1)** **$\bar{x}$ (SD): 3.3 (0.8)**	χ^2 18.4, df 3, p=0.000. NS post Bonferroni adjustment.

[1]Five point Likert rating scale from strongly agree (1) to strongly disagree (5); [2]40 (19.2%) did not respond; [3]43 students (20.7%) did not respond; [4]42 students (20.2%) did not respond

With regard to future online provision, almost two thirds of staff indicated that developing a relationship with students would be a major problem. The majority of both staff and students agreed that online provision would be at least a minor problem in terms of meeting with other academic staff/ their friends (87.3% vs. 66.4% respectively; p=0.12). Similarly, for 54.9% of staff and 43.8% of students, a major problem would be missing meeting other academic staff/ their friends (p=0.25). Data are shown in Table 6.

Table 6: Perceived social impacts of moving to online provision according to staff and students. Data is expressed as medians with interquartile range (IQR)1 & means with standard deviations ($\bar{x}$ (SD)).

Item	Student scores expressed as median (IQR) & $\bar{x}$ (SD)	Staff scores expressed as median (IQR) & $\bar{x}$ (SD)	Staff vs student comparison; chi square test results
I would find it harder to develop a relationship with my students	n/a	2 (1) $\bar{x}$ (SD): 1.5 (0.7)	n/a
I would miss interacting with academic staff (students)/ being in class with my students (staff)[2]	2 (1) $\bar{x}$ (SD): 1.7 (0.9)	2 (1) $\bar{x}$ (SD): 1.4 (0.7)	χ^2 17.4, df 3, p=0.001. NS post Bonferroni adjustment.
I would miss being with other staff (staff) / my friends (students)[3]	2 (1) $\bar{x}$ (SD): 1.7 (0.9)	2 (1) $\bar{x}$ (SD): 1.5 (0.7)	χ^2 22.4, df 3, p=0.000. NS post Bonferroni adjustment.

[1]Data collected as major problem (2), minor problem (1) & not a problem (0); [2]42 students (20.2%) did not respond; [3]44 students (21.2%) did not respond

In terms of what would help them belong if future provision were online, 86% of staff and 60.1% of students identified hearing the lecturer's voice as either essential or helping a lot. Significantly more staff than students thought this was essential (59.2% vs. 29.8%; p<0.000). Seeing the lecturer online was identified as essential by a significantly greater proportion of staff than students (50.7% vs. 21.6% respectively; p<0.000). Taking part in online quizzes was identified as essential by 22.5% of staff and 17.8% of students, while 42.3% of staff and 30.3% of students thought they would help a lot (p=0.08). Similarly, a greater proportion of staff than students identified participating in online activities as being essential (35.2% vs. 15.4% respectively; p<0.000) or helping a lot (45.1% vs. 25.5% respectively; p<0.000). By contrast, significantly more students than staff felt it would not help at all (20.2% vs. 2.8% respectively; p<0.000).

Significantly more staff than students thought that pre-recorded lectures would help a little (50.7% vs. 16.3% respectively; p<0.000), a similar proportion thought they would help a lot and there were no significant differences in the proportion of staff and students who thought they would be essential (9.9% and 25.5% respectively; p=0.41). Data are shown in Table 7.

Table 7: What would help aid belonging in an online world? Perceptions of staff and students. Data expressed as median (IQR).

Item	**Students** Scores expressed as median (IQR)	**Staff** Scores expressed as median (IQR)	Differences between staff & student responses; chi square test results
Hearing the lecturers voice	3 (3)	4 (1)	χ^2 28.4, df4, p<0.000
Seeing the lecturer online	3 (2)	4 (1)	χ^2 40.7, df4, p<0.000
Taking part in online quizzes	2 (2)	3 (1)	χ^2 29.1, df4, p<0.000
Taking part in online activities	2 (2)	3 (1)	χ^2 41.1, df4, p<0.000
Listening to pre-recorded lectures	2 (3)	2 (1)	χ^2 46.1, df4, p<0.000

[1]Data scored as essential (4), would help a lot (3), would help a little (2), would not help at all (1)

Was sense of belonging impacted upon by student demographics?

There were no differences in perception of the importance of belonging by demographic (age, gender, ethnicity, disability, commuting status, first-in-family or living situation) or study characteristics (level or mode of study). Similarly, there were no effects of demographic or study characteristics on personal sense of belonging before lockdown, feelings that belonging had changed since lockdown or opinions on whether physical presence on campus was important for a sense of belonging (data not shown).

Looking at potential future online delivery and whether home issues would make it difficult, age had a significant impact (x^2 8.04, df 3, p<0.05). Posthoc analysis showed that older students were significantly more likely to indicate this to be a major problem (p<0.05).

Qualitative data

Belonging was recognised as important by both staff and students and related to motivation and attainment in both. Reducing loneliness and supporting mental health through connection with others was mentioned by students, whereas for staff feeling part of a community with shared goals was described. For both groups, an increased sense of detachment as a result of the lockdown was apparent. The importance of social aspects of learning and working was highlighted by both groups. Both groups highlighted the loss of the commute, flexibility and convenience of online teaching as potential advantages, while loss of the immediacy and spontaneity of face-to-face sessions were disadvantages. Student responses are shown in Table 8 and those of staff in Table 9.

Table 8: Main themes from student qualitative responses.

Theme	*Numbers (%)*	*Illustrative quotes*
Is belonging important? (n=96 responses, with 147 subtheme mentions)		
Helps motivate & engage	32 (21.7)	*'It is important as it can help motivate the student in completing their studies'*
Part of community, reduces loneliness	17 (11.6)	*'A sense of community can help the university experience and really help propel students in their studies'*
Fitting in, connection, inclusive	17 (11.6)	*'It gives you a sense of stability and connection with your peers'*
How has your sense of belonging changed since lockdown? (n=106 responses, with 149 subtheme mentions)		
Reduced interactions, connection & spontaneity in class	29 (19.5)	*'I think literally I don't belong to the university now since there is no good connection between the staff & students, we see very few faces of people now at home, and cannot share ideas'*
Need face to face interaction	24 (16.1)	*'Without face to face interaction, the sense of belonging is slowly decreasing'*
Advantages of online learning (n=143 responses with 259 subtheme mentions)		
Recorded so access in own time, convenient	44 (17.0)	*'I can record the lecture and learn at my own pace. At times face to face teaching doesn't fit everyone's learning speed'*
No commute	37 (14.3)	*'Not travelling for 2 hours to and from university every day'*
Saves time	29 (11.2)	*'Saves time which can be used in revision and making notes'*
Comfortable in own home	24 (9.3)	*'Comfortable in your own home while studying and listening'*
Disadvantages of online learning (n=149 with 318 subtheme mentions)		
Need live interactive sessions	44 (13.8)	*'Considerably less flow & engagement than with a normal lecture, partly due to the detachment and the idea of not being physically present and therefore not mentally present (I find this hinders my ability to learn and take in information as active learning and teaching is much more effective)'*
Need immediate responses to questions, feedback from staff	38 (11.9)	*'Our lecturers are also less able to fully understand and help with our questions'*
Lack of social interaction, contact with friends & staff	33 (10.4)	*'Major disadvantage is the lack to face to face interactions with my peers and lecturers'*
Need access to physical resources e.g. library, labs	26 (8.2)	*'Less access to labs, library very difficult to do projects and other works'*
What help would you need? (n=87 responses, with 142 subtheme mentions)		
Support, clear instructions for IT & course materials	21 (14.8)	*'Clear instructions as to where I can find my lecture content and extra additional resources'*
Ongoing regular support from academics	14 (9.9)	*'I would need to ensure I have regular contact with my lecturers to clear up any questions'*
IT hardware & software	13 (9.2)	*'More information on how to access specific software like GIS and SPSS'*
Who did you ask for help? (n=134 responses)		
Friends, classmates	67 (50.0)	*'My friends and I have supported each other all the way through, in addition to good communication across my course'*
Lecturers	55 (41.0)	*'I've developed a good rapport with one of my lecturers who I've always gone to for help'*
Personal tutor	14 (10.4)	*'My personal tutor'*

For staff, working online from home as most were forced to do, resulted in a blurring of the lines between work and home. An increased workload as a result of emergency changes to teaching, assessment and the loss of demarcation between work and home was highlighted with some staff feeling that their efforts were neither recognised nor appreciated.

Table 9: Main themes from staff qualitative responses.

Themes	*Numbers (%)*	*Illustrative quotes*
Why belonging is important (n=45, with 82 subtheme mentions)		
Common goals, shared experience, connection	32 (39.0)	*'It's one of the fundamental needs, isn't it? Something that defines you as a person'*
Improves commitment, motivation	8 (9.8)	*'Being part of a team to which you have an allegiance and identity is important for both morale and productivity'*
How has your sense of belonging changed since lockdown? (n=52 responses, with 68 subtheme mentions)		
Little difference; I can stay in touch online	19 (36.5)	*'It's familiar, don't really feel it's changed - in some cases I am seeing more of people at online meetings than I did at physical meetings'*
Extra work, no appreciation	11 (21.2)	*'There has not been much thanks or understanding offered to staff despite us working very hard and in difficult conditions; there has also been a lack of listening to staff's views and concerns about teaching changes'*
Lack of connection, feel disengaged	6 (11.5)	*'Being physically disconnected from the university, one's office and one's colleagues leads to a certain level of disenfranchisement. It's hard to feel a real connection'*
Advantages of online teaching (n=71 responses with 116 subtheme mentions)		
No commute	32 (27.6)	*'Could save a lot of time (e.g. commuting)'*
More control, convenience, flexibility	14 (12.1)	*'Giving all students opportunity to learn at their own pace (by providing recordings of online lectures and other taught sessions'*
Improved student engagement, attendance	10 (8.6)	*'I feel it can benefit attendance at classes, which some students may otherwise not be able to attend/choose not to attend'*
Disadvantages of online teaching (n=59 responses, with 151 subtheme mentions)		
Will be difficult to form relationships	21 (13.9)	*'Students would be more difficult to get to know online and relationships between students more difficult to form'*
Far less engagement, involvement in class	20 (13.2)	*'My style of teaching reacts with the students this is difficult online - in class I can see if someone isn't coping / being involved on line they can just mute their microphone and they disappear'*
Face-to-face more effective for some sessions	20 (13.2)	*'Face to face contact and immediacy of response and community spirit'*
Your training needs (n=55 responses, with 67 subthemes)		
Creating effective interactive engaging online sessions	16	*'Camera and mic 'craft' to ensure engaging material online (it can't be as simple as delivering the same lecture online)'*
Use of appropriate hardware & software for teaching online	13	*'On tap support with software without patronisation'*
Have your responsibilities/boundaries of work changed since lockdown? (n=50 responses, with 86 subtheme mentions)		
Lack of distinction between work & home life	19 (22.1)	*'My work station has dominated my living space, I can never escape it'*
Lots of emails	12 (14.0)	*'Email is now the main form of communication and it feels like emails need to be read and acted on more rapidly than before'*
Increased workload	9 (10.5)	*'The working hours have extended, and have expanded to include more weekend hours'*

Reliability analysis

For multi-item questions, levels of reliability were generally high, particularly within the student questionnaires and for staff: student comparisons.

Table 10: Reliability analysis for similar items within the student and staff questionnaires, and for similar questions in student compared with staff questionnaires. Data expressed as Cronbach's alpha.

Student question & items	Student	Staff questions & items	Staff	Student: staff questions & items	Student vs. staff comparison
Q18: 8 items	0.967	Q13: 11 items	0.696	Q18 vs. Q13: 4 items	0.925
Q19: 11 items	0.973	Q14: 7 items	0.834	Q19 vs. Q14: 5 items	0.925
Q22: 9 items	0.965	Q17: 10 items	0.796	Q22 vs. Q17: 8 items	0.947
Q26: 5 items	0.926	Q22: 6 items	0.609	Q26 vs. Q21: 5 items	0.916

Discussion

The main findings of this study related to the recognition of the importance of belonging, the strong sense of belonging felt by both staff and students, and to the impact of online teaching on social aspects of learning, namely relationships with staff and peers. Both staff and students expressed concern about the difficulty of forming relationships virtually. However, while staff could see the benefit of establishing their social presence online using their voices and faces, and encouraging active engagement of students using online quizzes and interactive sessions, students were less likely to perceive the benefits of such approaches. The move from the physical campus and the associated changes to surroundings and social engagement (Ahn & Davis, 2019), and the alterations to teacher presence (Garrion, 2017; Garrison et al 2000), were all issues highlighted by our participants.

Despite considerable diversity among participants in terms of demographic and study/work characteristics, overall there was remarkable homogeneity in their responses. A large proportion of both staff and students agreed that belonging was important, although students were less sure about this. Staff clearly recognised the importance of belonging and their qualitative data related it to motivation and attainment, explicitly linking benefits to the individual and to the institution. The literature supports this, linking students' engagement and attainment positively with a sense of belonging (Hausman et al., 2009; Freeman et al., 2007). In staff, enhanced work satisfaction was associated with opportunities for contact with students and other staff (Szromek & Wolniak, 2010), which relates to the social dimension of belonging described by Ahn & Davis (2019). This data suggests that it is important to help students develop a sense of belonging and to understand the benefits of a sense of community, and to enhance belonging in staff. Generally, less attention is paid in the literature to belonging in staff and what may facilitate that. 'Belonging' for staff may be represented by the degree of alignment between the role within the organisation and the personal needs of the employee (Brion, 2015), and similarly to students, belonging in staff results in a feeling of acceptance, inclusion and identity (Generation Schools Network, 2019). In secondary schools, teachers with a strong sense of belonging are more likely to develop stronger connections with students than those without (O'Brennan et al., 2017). In schools, the relationships between staff members feed into the culture and ethos of the school and thus have a major impact on student achievement (Barth, 2006). There is no reason to suppose it would be different in higher education, and in university students, relationships with academic staff are highly valued both as part of student belonging (Dwyer, 2017), and as a marker of institutional quality (Dicker et al., 2017, 2018). Ensuring that relationships may be nurtured without face-to-face contact will be a challenge, especially for new students starting in September with whom entirely new relationships need to be formed.

Personal sense of belonging (feeling totally at home) was significantly higher in staff than students, perhaps unsurprising given that 52% of staff respondents had worked in higher education for at least 15 years. However, significantly more students than staff had a strong sense of belonging and this did not differ by demographic or study characteristics. This is positive in such a diverse student group, given the literature which suggests that atypical students find it more difficult to develop a sense of belonging and legitimacy within higher education (Reay, 2010; Wainwright & Marandet, 2010; Waite, 2013; O'Shea, 2015, 2016; Southall et al., 2016). Both staff and students in this study felt that being physically present on campus mattered in terms of belonging; and both groups reported a reduction in their sense of belonging since lockdown, when the campus closed and teaching and learning was forced to move online. This is unsurprising; seismic changes to the structure of the day, physical environment in which individuals worked and ability to socialise occurred at very short notice within an environment of widespread fear.

Mixed satisfaction with the current teaching and supervision arrangements made by the institution was expressed by our participants. Almost half of the student participants disagreed that they would learn better online than face-to-face, which bodes ill for the new semester. What will be put in place and how teaching and learning will be managed must be clearly communicated to students, more than quarter of whom in this study agreed that they did not know what was happening or where to go for help when teaching and learning first went online in March. This may have been in part a reaction to the sudden change in provision from that which was expected. Nonetheless, such altered arrangements in higher education provision were justified; although young people such as students are not thought to be personally at high risk from severe symptoms of COVID-19, the risk to others of community transmission especially from asymptomatic carriers is high (Kluge, 2020). The university campus is no stranger to outbreaks of illness; so-called 'Freshers flu' is common in UK institutions each new academic year (Gatherer, 2015).

Young people typically move away from home, mixing socially and academically with a wide and diverse group, and living together in communal housing. Their eating behaviours, sleeping patterns, physical activity levels and use of alcohol often deviate from recommendations (Dodd et al., 2010). As such, they are recognised as being at high risk from conditions such as meningococcal disease and are a group prioritised for vaccination against it in the UK (PHE, 2019; Hagell, 2017). COVID-19 is different however, in that the closure of university campuses was largely undertaken to protect others, to reduce community transmission at a time when whole populations were asked to make huge sacrifices to protect those at high risk. How and when institutions may safely reopen is unclear, but it is a topic with which we should engage. The difficulties of democratic engagement in 'desecuritization' of education have been highlighted (Murphy, 2020), and qualitative feedback from some staff in this project noted the disenfranchisement they felt, seeing themselves reduced to producers of educational materials dictated to by senior leadership, rather than active participants in decision-making. A longer-term victim of the COVID-19 pandemic on higher education may be this detachment of dedicated academics from their institutions because of the emergency decision-making mechanisms utilised within their institutions. We would suggest this risk is important and should be recognised and mitigated against; the greatest resource any higher education institution has is its people.

An important question is how a sense of belonging may be instilled and maintained if teaching remains online, which appears increasingly likely at least into the start of the next academic year. It is clear that the development of social relationships with students and staff, is an intrinsic part of belonging, for both groups. Interpersonal relationships including those with peers are important determinants of belonging in students (Katanis, 2000; Johnson, 2012; Read et al., 2018; Meehan & Howells, 2019), and the potential negative impact of the pandemic on relationships has also been highlighted by others (Longhurst et al., 2020). Developing relationships is easier on campus where informal and spontaneous face-to-face contacts with others are possible (Tinto, 1993; Simpson, 2003; Strayhorn, 2012). How this sense of connection may be facilitated in an online environment is less clear (Fowler-Watt et al., 2020), but belonging will only be possible if individuals feel cared for (Matheson & Sutcliffe, 2017), and compassion should be at the heart of pedagogy (Auerbach & Hall, 2020). Designing opportunities to enable collaboration, as well as offering assessment tasks which encourage structured online social interaction have both been suggested as important (Thomas et al., 2017), allowing students to become and feel part of a community of learners (Garrison, 2017; Garrison et al., 2000). Participants in this study were asked to rate the importance of active learning opportunities and teacher presence online in facilitating belonging in students. Approaches to establish a social presence online (e.g. seeing the lecturer or hearing their voice), and taking part in online activities and quizzes were all identified as essential to encourage belonging by a greater proportion of staff than students. Others have shown that students are reluctant to use microphones and to actively engage online (Kedraka & Kaltsidis, 2020), and it has been suggested that different personality types may find the switch to online learning more difficult (McNulty et al., 2006). Although guidance to enhance student engagement online in response to the pandemic have been produced (e.g. Bao, 2020) or in online teaching more generally (e.g. Fiock, 2020), exactly what students consider essential in online teaching to help them belong is not clear and evaluation of any strategies used including synchronous (McBrien & Jones, 2009) and asynchronous sessions, should be undertaken.

While our participants recognised many of the potential advantages of online teaching, it is important that the difference between provision of emergency online sessions virtually overnight, and the longer term move to online or blended teaching is recognised. Even within the emergency scenario, when it might be assumed that students would recognise the extraordinary efforts being made by staff and institutions, mixed responses to online teaching provision in both this project and others have been shown (Adusei Amoah & Moh, 2020; Kedraka & Kaltsidis, 2020). It is likely that students will have high expectations of the provision in the new academic year, in particular since UK tuition fees have not been lowered in response to the pandemic (Hubble & Bolton, 2020). Students will also perceive that staff have had months to prepare for such provision, but institutions may fail to recognise the extra time, support and resource required to produce excellent active online learning. Increased workload was identified as an issue by several staff in this study, even before the development of new blended learning resources, and difficulties in separating work and home lives when working at home were highlighted, similar to other studies (Watermeyer et al., 2020; Longhurst et al., 2020). The dedication of staff should be acknowledged and rewarded, and a great deal of support in the new academic year will be needed by both staff and students.

Potential advantages of online learning include greater access and opportunity especially for those with long commutes or who struggle to manage multiple responsibilities (Muse, 2003; Simpson, 2003; Karalis & Raikou, 2020; Longhurst et al., 2020), and these were also identified by our participants. However, it is not a given that inequalities in education will be reduced by online learning and in fact they may be exacerbated (Farhadi, 2019). Digital divide has been highlighted as a particular concern (Sahu, 2020; UNESCO, 2020), and technical issues may impact on student engagement (Wimpenny & Savin-Baden, 2013; Ilgaz & Gŭlbahar, 2015). In addition, some online tasks (e.g. online discussions), may feel alien to some (Whittaker, 2015), and will need to be clearly explained to students as will signposting to additional support. Our participants highlighted concerns such as inadequate information technology provision or internet access, and a total reliability on online provision would only be of benefit to those who could access it. Nor are these just an issue for students; difficulties with inadequate information technology resources were identified in similar proportions of staff and students in this study. Both groups expressed concerns about the impact of online teaching on social relationships, as well as the possibility that face-to-face teaching will be more suitable for some sessions, and both expressed a preference for face-to-face teaching. This has also been found in other studies (Karalis & Raikou, 2020; Longhurst et al., 2020). A blended learning approach in which

online and face-to-face sessions are integrated (Garrison & Kanuka, 2004), would help ensure that staff and students could form relationships and a community of learning, while managing social distancing requirements. Where possible, incorporating a mixture of synchronous and asynchronous online teaching would enhance flexibility for staff and students, while allowing both maximum opportunities to develop and maintain relationships.

This study is relatively small and was carried out in a single institution. Nonetheless participants were diverse in demographic and study/work characteristics, and many of the findings are similar to those of other studies, suggesting that our findings may be generalised beyond our institution. From a practical perspective we would suggest:

- Using a mix of asynchronous and synchronous learning so that safety of staff and students is maximised but both teacher and social presence are possible;
- Enhancing teacher presence using audio and video facilities;
- Encouraging active student engagement with clearly communicated 'netiquette' guidance;
- Allowing those who find online engagement more difficult to participate at their own pace (e.g. using chat functions);
- Ensuring that clear guidance is given to students, so that they understand how and why they may participate, as well as what asynchronous tasks they need to complete, and by when;
- Evaluating all aspects of online teaching and learning to understand which aspects are more or less successful, and the possible impact of demographic or learner characteristics in order to inform the literature;
- We would also encourage engagement within and between institutions to enable academics to form supportive collaborations as well as to develop and share resources.

The COVID-19 pandemic has placed enormous strain on staff, students and managers in higher education, but it may also represent an opportunity to incorporate mixed methods into teaching and learning, to maximise student involvement and participation in their own learning (Fiock, 2020; Longhurst et al., 2020; Peters et al., 2020). It may also be an opportunity for academics and institutions to work collaboratively, and to gain new digital skills (Longhurst et al., 2020). While necessary change in higher education may be encouraged, effective blended learning will not be as simple as putting lecture notes online. Time, support and resources will be needed to enable optimal teaching and learning, and evaluation of all approaches used including their impact on staff and student experience will be needed.

Funding: No funding was received for this work.

References

Adusei , A. P., & Moh, K. H. (2020, June 13). The COVID-19 Pandemic and internationalisation of higher education: International students' knowledge, experiences, and wellbeing. *HEPI*. https://www.hepi.ac.uk/2020/06/13/weekend-reading-the-covid-19-pandemic-and-internationalisation-of-higher-education-international-students-knowledge-experiences-and-wellbeing/

Ahn, M. Y. & Davis, H. H. (2019). Four domains of students' sense of belonging to university. *Studies in Higher Education, 45*(3), 622-634. https://doi.org/10.1080/03075079.2018.1564902

Allen, I. E., & Seaman, J. (2010). Learning on demand: Online education in the United States. *Babson Survey Research Group*. https://files.eric.ed.gov/fulltext/ED529931.pdf

Auerbach, J. & Hall, N. (2020). A new approach to social sciences, humanities at a time of crisis. *University World News*. https://www.universityworldnews.com/post.php?story=20200505063831104 (accessed 24/09/20).

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking university. *Human Behaviour & Emerging Technologies, 2*, 113-115. https://doi.org/10.1002/hbe2.191

Barth, R. S. (2006). Improving relationships within the schoolhouse. *Educational Leadership, 63*(6), 8-13. http://www.ascd.org/publications/educationalleadership/mar06/vol63/num06/Improving-Relationships-Within-the-Schoolhouse.aspx

Bolton, P. & Hubble, S. (2020). *Coronavirus: Financial impact on higher education*. Briefing Paper 8594. House of Commons Library. https://commonslibrary.parliament.uk/research-briefings/cbp-8954/

Brion, S. A. (2015). *Teacher morale: A dissertation in educational leadership* [Doctoral dissertation, The Pennsylvania State University]. https://etda.libraries.psu.edu/files/final_submissions/10546

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K. & Sabu, K. M. (2020a). COVID-19 in Higher Education Literature Database (CHELD). Version 1. *Institute of Research Innovation*. https://doi.org/10.37074/jalt.2020.3.2.11d

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K. & Sabu, K.M. (2020). COVID-19 in Higher Education Literature Database (CHELD V1): An open access systematic literature review database with coding rules. *Journal of Applied Learning and Teaching, 3*(2). https://doi.org/10.37074/jalt.2020.3.2.11

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. A. & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching, 3*(1), 9-28. https://doi.org/10.37074/jalt.2020.3.1.7

Dicker, R., Garcia, M., Kelly, A., Modabber, P., O'Farrell, A., Pond, A., Pond, N., & Mulrooney, H. M. (2017). Student perceptions of quality in higher education: Effect of year of study, gender and ethnicity. *New Directions in the Teaching of Physical Sciences, 12*(1). https://doi.org/10.29311/ndtps.v0i12.2332

Dicker, R., Garcia, M., Kelly, A., & Mulrooney, H. (2018). What does 'quality' in higher education mean? Perceptions of staff, students and employers. *Studies in Higher Education,* https://doi.org/10.1080/03075079.2018.1445987

Dodd, L.J., Al-Nakeeb, Y., Nevill, A. & Forshaw, M. J. (2010). Lifestyle risk factors of students: A cluster analytical approach. *Preventive Medicine, 51*(1), 73-77. https://doi.org/10.1016/j.ypmed.2010.04.005

Dwyer, T. (2017). Persistence in Higher Education through Student-Faculty Interactions in the Classroom of a Commuter Institution. *Innovations in Education and Teaching International, 54*(4), 325-334. https://doi.org/10.1080/14703297.2015.1112297

Farhadi, B. (2019). *"The Sky's the limit": On the impossible promise of e-learning in the Toronto district school board.* [Doctoral dissertation, University of Toronto]. http://hdl.handle.net/1807/97442

Fauci, A. S., Lane, C., & Redfield, R. (2020). Covid-19—navigating the uncharted. *New England Journal of Medicine, 382*(13), 1268–1269. https://doi.org/10.1056/NEJMe2002387

Fiock, H. S. (2020). Designing a community of inquiry in online courses. *International Review of Research in Open and Distributed Learning, 21*(1), 135-153. https://doi.org/10.19173/irrodl.v20i5.3985

Fowler-Watt, K., Majin, G., Sunderland, M., Phillips, M., Brine, D., Bissell, A., & Murphy, J. (2020). Reflections on the Shifting Shape of Journalism Education in the Covid-19 pandemic. *Digital Culture and Education.* Advanced Online Publication. https://www.digitalcultureandeducation.com/reflections-on-covid19/journalism-education

Freeman, T., Anderman, L., & Jensen, J. (2007). Sense of Belonging in College Freshmen at the Classroom and Campus Levels. *The Journal of Experimental Education, 75*(3), 203-220. https://doi.org/10.3200/JEXE.75.3.203-220

Garrison, D.R., Anderson, T. & Archer, W. (2000). Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. *The Internet and higher Education, 2*(2-3), 87-105.

Garrison, D. R. (2017). *E-learning in the 21st century: A Community of Inquiry framework for research and practice* (3rd ed.). Routledge.

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *Internet and Higher Education, 7*(2), 95 – 105 https://doi.org/10.1016/j.iheduc.2004.02.001

Gatherer, D. (2015, October 6th). Explainer: What is freshers' flu and what can you do about it? *The Conversation*. https://theconversation.com/explainer-what-is-freshers-flu-and-what-can-you-do-about-it-48400

Generation Schools' Network (2019). Belonging and Balance in the Lives of Students and Staff: A Literature Analysis of the Role Belonging and Balance Play in School Success. *Generation Schools' Network*. https://static1.squarespace.com/static/5c3155a689c17239373114ec/t/5cd47c00b208fc42448e4b58/1557429249530/Literature+Review+--+For+website.pdf

Hagell, A. (2017). An overview of research on key issues in student health. *Association for Young People's Health*. http://www.youngpeopleshealth.org.uk/wp-content/uploads/2017/04/AYPH-Student-Health-Briefing.pdf

Hausmann, L. R., Ye, F., Schofield, J. W. & Woods, R. L. (2009). Sense of belonging and persistence in white and African American first-year students. *Research in Higher Education, 50*, 649–669. https://doi.org/10.1007/s11162-009-9137-8

Hubble, S., & Bolton, P. (2020). *Coronavirus: implications for the higher and further education sectors in England*. House of Commons Briefing Paper no. 8893. House of Commons Library. https://dera.ioe.ac.uk//35353/1/CBP-8893.pdf

Huddart, D., Hirniak, J., Sethi, R., Hayer, G., Dibblin, C., Meghna, R. B., Ehsaanuz, Z. M., Jenkins, C., Hueso, B. & Sethi, S. (2020). #MedStudentCovid: How social media is supporting students during COVID-19. *Medical Education, 00*, 1-2. https://doi.org/10.1111/medu.14215

Ilgaz, H. & Gűlbahar, Y. (2015). A snapshot on online learners: E-Readiness, e-satisfaction and expectations. *International Review of Research in Open and Distributed Learning, 16*(2), 171-187.

Johnson, D.R. (2012). Campus racial climate perceptions and overall sense of belonging among racially diverse women in STEM majors. *Journal of College Student Development, 53*(2), 336–346. https://psycnet.apa.org/doi/10.1353/csd.2012.0028

Kahu, E. R., & Nelson, K. J. (2018). Student engagement in the educational interface: understanding the mechanisms of student success. *Higher Education Research & Development, 37*(1), 58-71, https://doi.org/10.1080/07294360.2017.1344197

Katanis, T. (2000). The role of social transition in students' adjustment to the first year of university. *Journal of Institutional Research, 9*(1), 100-110.

Kedraka, K. & Kaltsidis, C. (2020). Effects of the COVID-19 pandemic on university pedagogy: Students' experiences and considerations. *European Journal of Education Studies, 7*(8), 16-30. https://doi.org/10.46827/ejes.v7i8.3176

Kluge, H.H.P. (2020, April 2nd). Statement – Older people are at highest risk from COVID-19, but all must act to prevent community spread. *World Health Organization*. https://

www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-older-people-are-at-highest-risk-from-covid-19,-but-all-must-act-to-prevent-community-spread

Longhurst, G. J., Stone, D. M., Dulohery, K., Scully, D., Campbell, T. & Smith, C. F. (2020). Strength, Weakness, Opportunity, Threat (SWOT) Analysis of the Adaptations to Anatomical Education in the United Kingdom and Republic of Ireland in Response to the Covid-19 Pandemic. *Anatomical Sciences Education, 13*(3), 301-311. https://doi.org/10.1002/ase.1967

Lorenzo, G. (2008). The Sloan semester. *Journal of Asynchronous Learning Networks, 12*(2), 5–40. https://files.eric.ed.gov/fulltext/EJ837474.pdf

Marinoni, G., van't Land, H. & Jensen, T. (2020). The impact of COVID-19 on Higher Education around the world. *IAU Global Survey Report*. https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf

Matheson, R. & Sutcliffe, M. (2017). Creating belonging and transformation through the adoption of flexible pedagogies in masters level international business management students. *Teaching in Higher Education, 22*(1), 15-29. https://doi.org/10.1080/13562517.2016.1221807

McBrien, J. L., Jones, P. & Cheng, R. (2009). Virtual Spaces: Employing a Synchronous Online Classroom to Facilitate Student Engagement in Online Learning. *International Review of Research in Open and Distance Learning, 10*(3), 1-17.

McNulty, J. A., Espiritu, B., Halsey, M. & Mendez, M. (2006). Personality preference influences medical student use of specific computer-aided instruction (CAI). *BMC Medical Education, 6*, 7. https://doi.org/10.1186/1472-6920-6-7

Meehan, C. & Howells, K. (2018). What really matters to freshers?: evaluation of first year student experience of transition to university. *Journal of Further and Higher Education, 42*(7), 893-907. https://doi.org/10.1080/0309877X.2017.1323194

Murphy, M.P.A. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy, 41*(3), 492-505. https://doi.org/10.1080/13523260.2020.1761749

Muse, H. E. (2003). The web-based community college student: an examination of factors that lead to success and risk. *Internet and Higher Education,* 6(3), 241-261. https://doi.org/10.1016%2FS1096-7516(03)00044-7

O'Brennan, L., Pas, E., & Bradshaw, C. (2017). Multilevel examination of burnout among high school staff: Importance of staff and school factors. *School Psychology Review, 46*(2), 165-176. https://doi.org/10.17105/SPR-2015-0019.V46-2

O'Shea, S. E. (2015). Filling up silences – first in family students, capital and university talk in the home. *International Journal of Lifelong Education, 34*(2), 1-17. https://doi.org/10.1080/02601370.2014.980342

O'Shea, S. (2016). First-in-family learners and higher education: Negotiating the 'silences' of university transition and participation. *HERDSA Review of Higher Education, 3,* 5-23. https://www.herdsa.org.au/herdsa-review-higher-education-vol-3/5-23

Peters, M. A., Rizvi, F., McCulloch, G., Gibbs, P., Gorur, R., Hong, M., Hwang, Y., Zipin, L., Brennan, M., Robertson, S., Quay, J., Malbon, J., Taglietti, D., Barnett, R., Chengbing, W., McLaren, P., Apple, R., Papastephanou, M., Burbules, N., Jackson, L., Jalot, P., Kalantzis, M., Cope, B., Fataar, A., Conroy, J., Misiaszek, G., Biesta, G., Jandrić, P., Choo, S. S., Apple, M., Stone, L., Tierney, R., Tesar, M., Besley, T. & Misiaszek, L. (2020). Reimagining the new pedagogical possibilities for universities post-Covid-19. *Educational Philosophy and Theory.* https://doi.org/10.1080/00131857.2020.1777655

Public Health England. (2019). Guidance for public health management of meningococcal disease in the UK. *Public Health England*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/829326/PHE_meningo_disease_guideline.pdf

Read, B., Burke, P. J. & Crozier, G. (2018). 'It is like school sometimes': friendship and sociality on university campuses and patterns of social inequality. *Discourse: Studies in the Cultural Politics of Education, 41*(1), 70-82. https://doi.org/10.1080/01596306.2018.1457626

Reay, D., Crozier, G., & Clayton, J. (2010). 'Fitting in' or 'standing out': Working –class students in UK higher education. *British Educational Research Journal, 36*(1), 107-124. https://doi.org/10.1080/01411920902878925

Sahu, P. (2020). Closure of universities due to Coronavirus Disease 2019 (COVID-19): Impact on Education and Mental Health of Students and Academic Staff. *Cureus, 12*(4), e7541. https://doi.org/10.7759/cureus.7541

Samura, M. (2018). Understanding campus spaces to improve student belonging. *About Campus, 23*(2), 19-23. https://doi.org/10.1177/1086482218785887

Simpson, O. (2003). Student retention in online, open and distance learning. Kogan Page. *SIRC. Belonging. Social Issues Research Centre*. http://www.sirc.org/publik/Belonging.pdf

Southall, J., Wason, H., & Avery, A. (2016). Non-traditional, commuter students and their transition to Higher Education – a synthesis of recent literature to enhance understanding of their needs. *Student Engagement and Experience Journal, 5*(1), 1-15. https://doi.org/10.7190/seej.v4i1.128

Strayhorn, T. (2012). *College students' sense of belonging: A key to educational success for all students*. Routledge.

Szromek, A.R., & Wolniak, R. (2020). Job Satisfaction and Problems among Academic Staff in Higher Education. *Sustainability, 12*(12), 4865. https://doi.org/10.3390/su12124865

Thomas, L., Hill, M., O' Mahony, J., Yorke, M. (2017). *Supporting student success: strategies for institutional change. What Works? Student Retention& Success programme- Phase 2 Final Report.* https://www.heacademy.ac.uk/system/files/hub/download/what_works_2_-_summary_report.pdf

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. Second Edition. University of Chicago Press.

UNESCO (2020). *Startling digital divides in distance learning emerge*. https://en.unesco.org/news/startling-digital-divides-distance-learning-emerge

United Nations (2020). *Education during COVID-19 and beyond*. Policy Briefing. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf

Wainwright, E., & Marandet, E. (2010). Parents in higher education: impacts of university learning on the self and the family. *Educational Review, 62*(4), 449-465. https://doi.org/10.1080/00131911.2010.487643

Waite, S. (2013). Knowing your place in the world: How place and culture support and obstruct educational aims. *Cambridge Journal of Education, 43*(4), 413-433. https://doi.org/10.1080/0305764X.2013.792787

Weedon, K. A., & Cornwell, B. (2020). The Small-World Network of College Classes: Implications for Epidemic Spread on a University Campus. *Sociological Science, 7*, 222-241. https://doi.org/10.15195/v7.a9

Whittaker, A. (2015). Effects of Team-Based Learning on Self-Regulated Online Learning. *International Journal of Nursing Education Scholarship, 12*(1), 1-10. https://doi.org/10.1515/ijnes-2014-0046

Wimpenny, K. & Savin-Baden, M. (2013). Alienation, agency and authenticity: A synthesis of the literature on student engagement. *Teaching in Higher Education, 18*(3), 311-326. https://doi.org/10.1080/13562517.2012.725223

Wyres, M. & Taylor, N. (2020). Covid-19: using simulation and technology-enhanced learning to negotiate and adapt to the ongoing challenges in UK healthcare education. *BMJ Simulation and Technology Enhanced Learning,* (In-Press). https://doi.org/10.1136/bmjstel-2020-000642

Appendix

Appendix A: 'Belonging' at university in an online world: Staff & student perspectives.

Student Questionnaire

Part 1: About you. Please tick one option for each of the following questions.

1. **Which option best describes your gender? (tick one option)**

Male	Female	Other	Prefer not to say
1	2	3	4

2. **What is your age (years)? (tick one option)**

18-21	22-25	26-29	≥30	Prefer not to say
1	2	3	4	5

3. **Which category best describes your ethnicity? (tick one option)**

White (e.g. British, Irish, any other white background)	1
Black/Black British (e.g. Caribbean, African, any other Black background)	2
Asian/Asian British (e.g. Indian, Pakistani, Bangladeshi, other Asian background)	3
Mixed (e.g. White & Black Caribbean/African, White & Asian, any other)	4
Other ethnic groups (e.g. Chinese, any other ethnic groups)	5
Prefer not to say	6

4. **Do you consider yourself to have a disability?**

Yes	No	Prefer not to say
1	2	3

5. **What is your course of study?**.....

6. **Are you in:**

Level 3	Level 4	Level 5	Level 6	Postgrad
1	2	3	4	5

7. **Do you study:**

Full time	Part time
1	2

8. **How many times a week does it take you >45 mins to travel to university (one-way)?**

Usually (4-5 times a week)	Often (2-3 times a week)	Seldom (once or less a week)	Never
1	2	3	4

9. **Do you live with other students?**

Yes, in Halls of Residence	Yes, in private accommodation	No, I don't live with other students	Prefer not to say
1	2	3	4

10. **Are you the first in your immediate family (grandparents, parents or siblings) to attend university?**

Yes	No	Prefer not to say
1	2	3

Part 2: How can 'belonging' at university be facilitated in an online world?

1. **Do you think that belonging at university is important?**

Yes	No	Not sure	Prefer not to say
1	2	3	4

Please explain your answer.....

.....

2. How much did you feel that you personally belonged at the university BEFORE the lockdown? (circle one option)

1 (not at all)	2	3 (neutral)	4	5 (totally at home)

3. To what extent have your feelings of belonging at the university CHANGED since the lockdown? (circle one option)

Feel I belong a lot more than before	Feel I belong a little more than before	Not changed at all	Feel I belong a little less than before	Feel I belong a lot less than before

Please explain your answer.....

.....

.....

4. Is being physically present on campus an important part of belonging for you?

Yes, very important	1
Yes, a bit important	2
Neither important nor unimportant	3
No, not very important	4
No, not at all important	5

5. In the lockdown, the last two weeks of teaching were delivered remotely at short notice. Specifically with regard to your experience of this, please rate each of the following statements:

(where 1=strongly disagree, 2= disagree, 3= neither agree nor disagree, 4=agree, 5=strongly agree)

Statement	1	2	3	4	5
I did not know what was happening or where to go for information (rev).					
I found it reassuring to have classes online.					
Having a structure of online classes helped me cope with the lockdown.					
I struggled with adequate online provision (e.g. equipment, internet access) so online classes were difficult for me (rev).					
My home issues (e.g. caring responsibilities, childcare) made it difficult for me to manage (rev)					
I preferred online classes to being physically in class.					
I learned better in the online sessions compared with classes at university.					
I did not attend the online classes (rev).					
I would have difficulty keeping friends if teaching was online (rev).					
There would be advantages to online delivery.					
If lectures were available online I would become less involved with the university (rev).					
If I could not come to the campus, I would be **MORE** likely to attend timetabled online classes.					
If recorded lectures were available online, I would be **LESS** likely to attend timetabled online classes (rev).					

6. If social distancing remains in place and teaching moved to online delivery either completely or partially in the new academic year:

Please indicate your level of agreement with the following statements (where 1=strongly disagree, 2= disagree, 3= neither agree nor disagree, 4=agree, 5=strongly agree).

Statement	1	2	3	4	5
Online teaching would make me feel less like I belonged to the university (rev).					
Online teaching would negatively affect my learning (rev).					
I don't mind either way; I am here to learn.					
Online delivery would benefit my learning.					
I would have difficulty making friends with online delivery (rev).					
Home issues (e.g. childcare, caring responsibilities) would make online delivery **MORE** difficult for me to manage (rev).					
Home issues (e.g. childcare, caring responsibilities) would make online delivery **LESS** difficult for me to manage					

8. What are the advantages & disadvantages of online learning for YOU?

Advantages	Disadvantages

9. To what extent are the following issues for you, with regard to online delivery?

Statement	Not a problem	Minor barrier	Major barrier
Cost of access to the internet			
Cost of equipment (e.g. laptop)			
Reliable internet access			
Access to a quiet place to work			
Home issues (e.g. childcare, caring responsibilities)			
I don't know how to use the online resources (e.g. Canvas conferences)			
I don't know where to find the information I need (e.g. lecture notes)			
I would miss being in class with my friends			
I would miss interacting with academic staff			

10. What would your training needs be, if delivery were online (partially or completely)? (e.g. Canvas)

11. Who would you ask for help in an online academic world? Rate the following options from 1 to 5, where 1 is the first port of call, and 5 is the option you are least likely to choose. Please use each number only once.

In an online academic world, if I needed help with my studies I would approach:	Ranking
My lecturers	
My course rep	
My friends	
My Personal Tutor	
The IT helpline	

12. Who did you ask for help in the initial stages of the lockdown (the last two weeks of term)?

13. What aspects of online learning would most help you feel that you belong at the university?

Option	Essential to help me belong	Would help a lot	Would help a little	Would not help at all
Hearing the lecturers voice				
Seeing the lecturer online using video facilities				
Taking part in online quizzes with my classmates (e.g. Kahoot, quizlet)				
Taking part in short activities online with the class (e.g. in breakout rooms)				
Listening to pre-recorded lectures and webinars				
Other, please specify (add as many options as you like and please rank each one)				

Thank you for your time

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Transition to distance learning during the COVID-19 pandemic: Efforts within the Higher Education sector in the United Arab Emirates

Doaa Alterri[A] *A* *Specialist, Ministry of Education, Abu Dhabi, UAE*

Maha Hindi[B] *B* *Registration and Licensing Specialist, Ministry of Education, Abu Dhabi, UAE*

Rawdha AlMarar[C] *C* *Director, Professional Licensing Department, Ministry of Education, Abu Dhabi, UAE*

Raed M. Shubair[D] *D* *Visiting Professor at the Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology (MIT); Adjunct Professor at the Department of Electrical and Computer Engineering, New York University (NYU), Abu Dhabi, UAE*

Keywords

COVID-19;
e-learning,
distance learning,
higher education;
UAE.

Article Info

Received 3 August 2020
Received in revised form 1 October 2020
Accepted 6 October 2020
Available online 8 October 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.17

Abstract

In the UAE, the Ministry of Education (MOE) ordered the closure of higher education institutions' facilities in March 2020 as a precautionary measure to contain COVID-19 and allowed online distance learning to take place. In this paper, a study on the readiness of higher education institutions in the UAE to transition to distance learning during the COVID-19 pandemic is conducted, and the preparedness of several institutions is discussed. In addition, this study highlights the foundations of the distance learning system adopted by higher education institutions along with the adopted educational platforms. MOE played a crucial role in this crisis by governing, monitoring and supporting the transition among universities to assure business continuity in higher education institutions. Moreover, higher education institutions encountered several challenges while implementing a distance learning system which is presented in this paper along with possible solutions and scenarios. Furthermore, multiple initiatives were launched by the UAE government to support distance learning that resulted in maintaining learning continuity among higher education students and faculty.

1. Introduction

At present, Information and Communication Technology (ICT) has an extreme effect on the way knowledge is accessed and delivered. The Internet has provided seamless and unbridled access to knowledge, removing barriers and constraints. Online learning is considered as one of the learning applications that is increasingly becoming widespread with the use of the Internet (Demir Kaymak & Horzum, 2013). Online learning is defined as the process of learning where knowledge and skills are acquired by synchronous and asynchronous learning applications. Currently, online learning is widely adopted in higher education (HE) institutions. Statistics revealed that in the higher education sector in the U.S., more than 30% of students are involved in online learning activities (Demir Kaymak & Horzum, 2013).

Incorporating online learning in the higher education sector has emerged in recent years, as in 2002, about 1.6 million students participated in online courses. In 2008, around 25% of higher education students were having a minimum of one online course (Perry & Pilati, 2011). Many researchers have studied the impact of online education and blended learning (BL) in higher education student performance (Vo et al., 2017; Topper & Lancaster, 2016).

The Coronavirus (COVID-19) outbreak has disrupted life globally in early 2020 when the World Health Organization (WHO) declared that COVID-19 is an infectious disease caused by a new Coronavirus (WHO, n.d.). Consequently, worldwide governments announced the closure of schools and universities as a safety measure to stop the spread of the virus (Butler-Henderson et al., 2020). Around 1.3 billion students from both sectors were affected by this closure as of mid-April as stated by UNESCO statistics (UNESCO, n.d.). In fact, this pandemic has severely affected the education sector. Much research has been devoted to investigate this impact on the higher education sector and to study the response of institutions worldwide (Crawford et al., 2020).

In March 2020, the UAE's Ministry of Education (MOE) imposed several awareness and precautionary safety procedures to contain the virus in alignment with the National Crisis and Emergency Management Authority (NCEMA). MOE announced the closure of higher education institutions and the resumption of remote learning. Therefore, spring break was moved two weeks earlier so institutions can prepare for the transition to distance learning. Institutes that were ready for direct implementation were allowed to continue with their academic calendar as planned. In addition, MOE collaborated with telecommunication companies in the UAE (Du and Etisalat) to support distance learning in higher education institutions by providing students with free network packages. MOE circulated guidelines issued by the relevant education institutions' authorities to deal with the developments of the novel Coronavirus. All employees of education institutions were instructed to avoid travelling, and in the cases where travelling was required, they had to undergo a medical examination and remain in quarantine for a period of 14 days upon return, and the institutions were obliged not to allow those coming from abroad to enter any of their facilities without these measures. Moreover, MOE has instructed higher education institutions to stop all local and international foreign university trips and events. Also, institutions were directed to reprogram their academic evaluation of lectures, assessment methods, and vacations for students or academic, and administrative members, in a manner that they could ensure the achievement of academic accreditation standards.

In this paper, the transition into a distance learning system in higher education institutions that is governed by Ministry of Education is illustrated. The paper describes the preparedness procedure taken by institutions to ensure the continuity of learning in the COVID-19 pandemic outbreak period. It highlights the readiness of higher education institutions for the transition into distance learning along with the adopted platforms. In addition, it illustrates how the assessment process is performed along with encountered challenges. It also elaborates the role of UAE government and MOE to maintain teaching continuity.

In summary, this paper contributes to the implementation of distance learning programs in higher education institutions to mitigate the effects suffered due to the pandemic. The paper includes the following:

- Description of preparedness plan adopted by higher education institutions;
- explanation on the readiness and transition into distance learning;
- illustration of challenges encountered along with possible solutions; and
- role of MOE and UAE government.

The rest of the paper is organised as follows. In section 2, an overview about the Ministry of Education in the UAE is presented while section 3 summarises the literature review of online learning. Section 4 demonstrates the readiness of higher education institutions for distance learning. Section 5 describes the transitioning procedures implemented by higher education institutions along with the adopted platforms. Section 6 elaborates the effort made by the UAE government to support distance learning in higher education institutions. Section 7 analyses the data, and section 8 highlights the challenges of the online learning system from the higher education sector perspective. Section 9, however, informs on our recommendations and future directions after taking into consideration the findings in this paper. Finally, section 10 concludes this study.

2. Overview about the Ministry of Education

The Ministry of Education (MOE) governs the entire education system in the UAE, encompassing both the private and public sector providing general education. Figure 1 shows the full taxonomy of the ministry structure in which it is clear that the Ministry is responsible for both general and higher education sectors (MOE, n.d.).

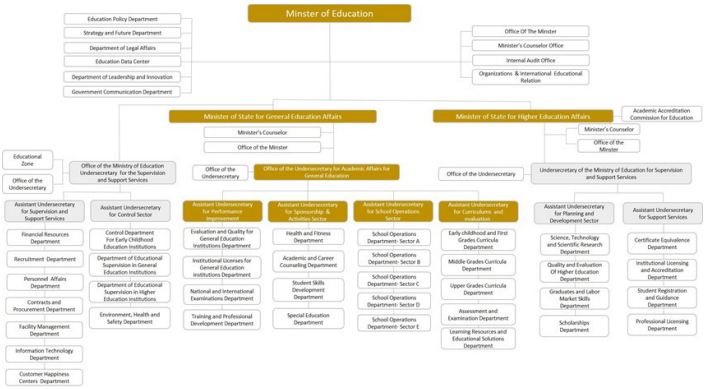


Figure 1: MOE Structure (MOE, n.d.)

In general education, public schools follow the UAE national curriculum, while private schools vary in their curriculum type (American, UK, etc.) to meet the nature of diversity in the country. MOE is the custodian for all policies and regulations that are related to education and inspection in the UAE as well as overseeing all public schools which are present in all Emirates. As for private schools, agencies such as Department of Education and Knowledge (ADEK) in Abu Dhabi and Knowledge and Human Development Authority (KHDA) in the Emirate of Dubai ensure that private schools implement and align their practices to UAE education policies and adhere to the standard quality, by conducting inspection as per the national framework that has been developed by MOE. These agencies work closely and collaboratively with MOE to support all private schools in their jurisdiction.

3. Literature review

Spanning over two centuries, distance learning has undergone many substantial changes in the way how this method of learning has been delivered. In literature, distance education environment has been referred to in many ways, e.g. including distance learning, e-learning, online learning (Çakıroğlu et al., 2019). Among others, distance education is the most common term used to refer to distance learning. It describes the process of providing geographically distant learners access to the learning process whereas e-learning is defined as a method of learning that incorporates technological tools such as Internet, videotape, satellite broadcast and TV. The use of e-learning system can allow students to have more flexible and easier learning experience as they can access the learning material inside and outside the classroom (Almaiah & Alyoussef, 2019). Online learning is described by many researchers as the access to learning experience through technological tools while some researchers defined it as a newer version of distance learning (Moore et al., 2011).

Another terminology used to describe distance education is online distance learning (ODL) which is widely used in academic institutions where most of the courses are delivered online and there is no need for physical meetings between instructors and students (Cheawjindakarn et al., 2013). In fact, researchers defined online courses as courses that are delivered with at least 80% of their course content through online learning with limited or zero face-to-face interaction. This can be done using video conferences, course management system (CMS) and other technological online tools (Cheawjindakarn et al., 2013).

Online teaching has more variety and options compared to the traditional teaching as it provides more features that cannot be possible with the traditional method (Perry & Pilati, 2011). With online learning, instructors are equipped with sophisticated tools that support them in evaluations and provide them with more creative options to deliver course content. Online learning can link instructors, students and resources one to another via communication media (Çakıroğlu et al., 2019). At present, there is much discussion on how to apply an effective online learning system, which almost requires a blend of both classic face-to-face learning and online learning. There are several factors that affect the efficiency of online learning such as community, having regular feedback, and providing clear expectations (Sadera et al., 2009; Perry & Pilati, 2011). These factors are essential to maintain student success and improve the efficiency of online learning. Therefore, creating a successful and productive online learning environment needs appropriate incorporation of both pedagogy and technology within the course delivery process (Perry & Pilati, 2011).

4. Readiness of higher education institutions for distance learning

This section illustrates the readiness of higher education institutions for learning by distance in regards to infrastructure and availability of resources and platforms.

4.1 Infrastructure

In the UAE, the majority of higher education institutions are pre-equipped with a learning management system to enhance the educational journey for students. These systems are supported by ICT available by service providers. To support the online learning system in this pandemic, Telecommunications Regulatory Authority (TRA) has launched several initiatives. TRA coordinated with telecommunication companies Etisalat and Du to provide free access to numerous online learning applications such as Microsoft Teams, Blackboard, and Skype for Business. They also extended the bandwidth for users to facilitate their Internet network usage.

4.2 Availability of resources and platforms in HE

There are several platforms used for distance learning in higher education institutions including Blackboard, Moodle, and Adobe Connect. These tools are used by students and faculty to support the distance learning process. For web meetings, institutions used tools such as BigBlueButtons and Microsoft Meetings to facilitate communication between students and instructors. More details about the e-learning platforms that are used in higher education institutions under COVID-19 pandemic are presented in sub-section 5.1.

5. Actions to transition into distance learning in the UAE

This section describes the preparedness plan created by higher education institutions to transition into distance learning during the COVID-19 pandemic.

5.1 Transition of institutions in higher education: a case study of best practices in five universities

The Ministry of Education has organised a virtual forum to discuss higher education institutions preparedness in response to COVID-19 with the presence of more than 100 leaders of higher education institutions in the country. This forum aimed to discuss the strategy adopted by institutions to face the challenges raised from the current health situation and to exchange best practices on how to overcome the obstacles of the Coronavirus challenge. Representatives of several institutions presented their experience and practice regarding the measures taken to ensure business continuity in their institutions considering the outbreak of the pandemic. They also highlighted the most prominent challenges faced by institutions along with possible solutions.

This section summarises the level of preparedness of higher education institutions in the UAE in response to COVID-19. In this section, we highlight the responses of five universities which are: United Arab Emirate University (UAEU), Higher Colleges of Technology (HCT), Zayed University (ZU), Khalifa University (KU) and American University of Sharjah (AUS).

5.1.1 United Arab Emirate University (UAEU)

The UAEU started to transition into online teaching on March 1st, as the university planned to conduct a pilot experience on March 4th and 5th for the whole university. Then on March 22nd, the university officially started online teaching and learning. Several technology platforms have been used by the UAEU in the online teaching process, including Blackboard Collaborate Ultra and MS Office 360 in which all classrooms are equipped with smartboards using MS Office 360. For faculty and students, Ellucian's Banner has been used to facilitate communication. Also, the UAEU has offered UAEUX on edX with MOOCs offered to the general public.

The university adopted four plans for online teaching as follows:

- Plan A: Using Blackboard Collaborate Ultra to conduct both synchronous and asynchronous sessions
- Plan B: Using Microsoft Teams instead of Blackboard Collaborate Ultra
- Plan C: Using Panopto
- Plan D: Using audio and/or video annotated PowerPoint presentations

Regarding research continuity, the university provided online research services to be available 100% to all researchers whereas it supported 20% of the operation of important laboratories to maintain ongoing research. In addition, to support the research community, the university established online grant management systems and online patent submission processes.

There are several challenges that UAEU encountered with online teaching. Firstly, there are many students who are suffering from no or poor Internet connections. This affects the quality of the delivered material to students where it becomes more challenging as some faculty members do not record their sessions. Secondly, many technical problems occurred due to the high traffic on cloud-based solutions. Also, many students and faculty members who did not attend the university online tutorials regularly contact the IT department for simple technical issues.

5.1.2 Higher Colleges of Technology (HCT)

From the start of the pandemic, HCT has prioritised the safety of students and staff and worked hard to turn challenges to opportunities. The institute responded to NCEMA and it conducted international benchmarking and best practices in order to prepare a pandemic preparedness plan to follow. To transition into online teaching, HCT used Blackboard (Campus-Elife) and HCT Smart Learning Platform, Uber-Like smart e-Learning, that allows students to access educational materials regardless of their location, to help them during the learning process.

HCT has prepared an Emergency Preparedness Plan as a measure during the COVID-19 pandemic. This starts by announcing cancellation of classes and campus closure. The plan also includes monitoring and assessing risk levels, anticipating actions in a critical situation with solutions to build a recovery plan. Regarding Environment, Health, and Safety (EHS), HCT also has a pandemic emergency management procedure, to coordinate with external authorities for emergency cases, and to monitor social distancing practices. Moreover, HCT made a great effort to overcome the challenges in the transition period. Many guidelines and materials were prepared to support students and faculty members in their online teaching process. Also, the institution supported the readiness of resources and technology for students and instructors.

5.1.3 Zayed University (ZU)

Zayed University has responded quickly to the transition into online teaching. Once it declared the closure of the campuses, immediate measures have been taken to smoothen the transitional period. The IT department provided full network support to all students and faculty members as well as guaranteed the availability of the needed hardware and software components. Also, the IT department operated a call center to solve problems. Several technology platforms have been used by Zayed University in the online teaching process, including Blackboard and Adobe Connect (AC). Regarding research continuity, faculty research was

facilitated using the library that can be accessed remotely by researchers. However, research using laboratories and studios has been put on hold as faculty members are working only from home. In order to protect experimental facilities, laboratory technicians are permitted to access the campus.

There are several challenges that come with the online teaching process. The most challenging one was the virtual practical sessions involved in many subjects such as Science and Art as it requires numerous practical activities during the class. Therefore, students were asked to work at home and share their work later using Adobe Connect (AC). Faculty also record themselves while they are performing practical skills and techniques and share it with their students through AC.

5.1.4 Khalifa University (KU)

Khalifa University responded to the pandemic immediately by forming a KU Pandemic Committee to develop a multimedia awareness campaign about the pandemic. The university made sure that all faculty members have laptops and interactive teaching pads to support the online learning process along with continuous and full support from the IT department. Training on distance learning tools and methodologies was done for all faculty members. Also, an FAQs platform was developed for the KU academic community to maintain business continuity in the university. Regarding distance learning, the university first piloted online learning and then gradually shifted towards implementing a working from home strategy. LMS platforms such as Moodle and Blackboard were provided to be used by students and faculty to support learning by distance. For meetings, several web meeting tools are used such as BigBlueButtons and Microsoft Meetings. To support the technology infrastructure in the university, the network bandwidth was increased. Regarding research activities, the university provided remote access to supercomputers and software to support researchers in maintaining their ongoing simulations along with full access to library resources. Moreover, the university considered web meeting platforms that can be securely accessed.

The university has investigated different scenarios for the admission of the next academic year as the Emirates Standardized Test (EmSAT) and entry exams are requirements for admission to the university. Since these exams may not happen, the university proposes three possible scenarios for the admission acceptance.

Scenario A:

Case of conducting EmSAT exams by end of June:

- The admission will be based on the EmSAT exam, while an interview will be done virtually.

Scenario B:

Case of no EmSAT exams in June:

- In July, the university will conduct admission exams in a multipurpose hall taking into consideration social distancing criteria.

Scenario C:

Case of neither EmSAT nor KU entrance exams are conducted:

- Grant university conditional admission for applicants based on high school scores.
- Students who hold conditional admission will be directed to study in Foundation year.

The university has built e-learning quality assurance standards to monitor new updates about distance learning. This includes updated e-learning policies and daily reports from students and faculty that include feedback about e-learning system and the used technology. Also, this includes having regular reports from the IT department regarding system efficiency and description of technical issues. In addition, it covers teaching methodologies by instructors to successfully achieve the outcomes of the courses. For Senior Design Project (SDP) where the hardware design needs hands-on work, the submission deadline may need to be shifted to the summer, as students will then have more time to work on it.

As part of the university's preparedness plan, a set of challenges was defined along with their corresponding action plans. For distance learning, several challenges were anticipated. Firstly, for the courses that need physical labs, a review of curriculum design was undertaken in which labs are replaced with virtual labs and simulations. Secondly, to support students with the distance learning system, instructions and guidelines were shared with them to explain how to use e-learning platforms along with 24/7 IT support services. To maintain distance education, the university has prepared a list of primary and secondary instructors for each course in case faculty members fall sick. In the research field, the main challenge was the suspension of research projects due to lab closures. To overcome this challenge, researchers were directed to re-plan their research to concentrate more on the simulation parts. For some researchers, they were given access to the labs while considering strict precautionary safety measures. Another challenge faced by researchers is the delay in purchasing research equipment due to the procurement suspension. As a response to this challenge, the university made sure to continue with the acquisition and installation of all needed equipment.

5.1.5 American University of Sharjah (AUS)

AUS started online learning on March 8, 2020, with faculty members devoting much time on online teaching to support students and help them. The timeline for many projects has been extended due to the closures of laboratories. The university focused on the quality assurance of distance learning as it was a quick transition to a different mode of course delivery. Therefore, the university worked on identifying the limitations taken from student and faculty feedback.

The university classified the challenges by two categories:

- Challenges for spring 2020:
  These challenges include the completion of undergraduate senior design projects and graduate students' theses, conducting laboratory courses and online examinations. To overcome these issues, the university directed to use simulations whenever possible and to provide an asynchronous experiment by providing students with data to be used. Also, the university decided to honour graduate students' contracts for the spring semester.

- Challenges beyond spring 2020:
  These include registration for the summer semester, as the university is planning to continue with course scheduling and registration. For the next fall semester, contingency planning will be prepared.

5.1.6 Policy of assessment in higher education

The Ministry of Education has issued a decree to regulate the continuity of teaching in higher education institutions until the end of the academic year 2019-2020 including the Summer semester. The decree includes instructions about distance learning system. The main points of the decree have been highlighted below:

- All institutions must adhere to the announced university calendar, especially with regard to the number of teaching weeks and exam dates.

- All institutions are obligated to maintain the approved study plan for each program and to offer all its corresponding courses.

- The institutions should impose appropriate procedures to monitor and ensure that students attend the distance learning process.

- Regarding assessments, the institutions should apply appropriate procedures while conducting exams remotely and use advanced tools to capture cheating behaviours.

- The institutions are instructed to keep the actual course grade whether it's a letter grade or a digital grade (depending on the institution's result system) and give students sufficient time in case they want to keep the actual result or have it converted to a Pass/Fail grade. In case students express their desire to have a Pass/Fail grade, the institutions should keep the actual grade in their database.

- The institutions should have a note on the student transcript, in which it identifies the semesters that have been run via distance learning along with the courses for which their grades have been converted to a Pass/Fail grade.

- The institutions shall exempt students from academic warnings, probation and academic dismissal during the distance learning period.

- The institutions must extend the withdrawal deadline and give students the option to withdraw from the course until the end of the last week of teaching and before the final exam of the course.

- The institutions should not deprive any student from entering the final exams during this period.

- The institutions should complete a discussion of graduate students' theses and graduation projects through distance learning methods and follow the simulation system for practical laboratory experiments.

6. Role of UAE Government in distance learning

After MOE announced the closure of the educational sector and the transition to distance learning, numerous initiatives were established by the UAE government to support the continuity of learning. From the beginning, the government coordinated with Telecommunications Regulatory Authority (TRA), Du, and Etisalat to offer free access to educational platforms and to offer free Internet packages for families with no Internet connection at home (UAE, 2020). In addition, laptops were distributed for students and faculty members who did not have one at home so they could resume distance learning and teaching in higher education institutions. Another initiative that has been established to support students is the Hematak initiative that includes remote interactive activities (FCSA, n.d.). Moreover, several initiatives have been launched by the government in coordination with the Emirates Red Crescent Authority, such as Ma'an and YallaGive, that aim to provide medication, food supplies, and educational support for families and students (The National, 2020). In fact, these initiatives along with the availability of the online platforms in the universities supported the students during the online learning period and did not result in an increase in the tuition fees.

7. Data and Analysis

From the moment that MOE announced the transition to distance learning, it kept monitoring and regulating online learning implementation in higher education institutions as it is considered the authority that governs the educational sector in the UAE. Therefore, multiple surveys were conducted by the MOE data centre to observe distance learning operations in higher education institutions. The surveys took place every week for a period of four weeks in order to capture learning by distance experience and take necessarily possible actions to enhance it based on the received feedback.

In the first week, a survey was conducted for higher education institutions. The total number of participants was 73, with 54 participants from the private sector and 19 from the public sector. The survey measured the level of readiness of

institutions for distance learning for the following aspects:

- Home readiness;
- infrastructure readiness;
- staff readiness; and
- challenges faced at the beginning of distance learning.

The home readiness factor reflects as to what extent students are ready to start distance learning. This includes questions regarding the availability of laptops, Internet access and access to systems and shared documents while questions that cover staff readiness are related to factors that reflect how much instructors are capable of delivering online teaching, which includes technical support, training programs and implementation of online classes. The infrastructure readiness factor reflects the availability of online platforms and resources in the institutions and the availability of a data centre. Finally, challenges highlight the challenges faced at the beginning of the distance learning period.

It can be observed from Figures 2 and 3 that higher education institutions' overall readiness for transition is considerably high. This is due to the fact that college students are independent and are familiar with online learning applications as they are used to deal with such applications to download course material, and submit assignments and projects. Similarly, this also applies to the faculty in the universities since they are used to deliver some of the course material online before the crisis. Thus, this significantly supported the transition to distance learning in the higher education sector.

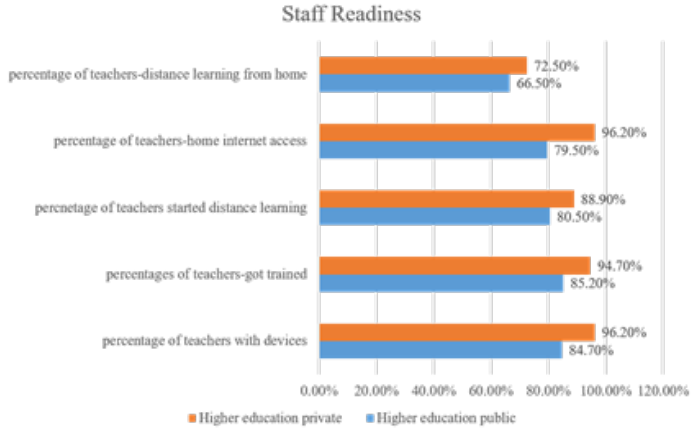


Figure 2: Staff Readiness

In the fourth week survey, the survey was conducted again to compare data with the first week analysis. The result of both surveys is summarised in Table 1.

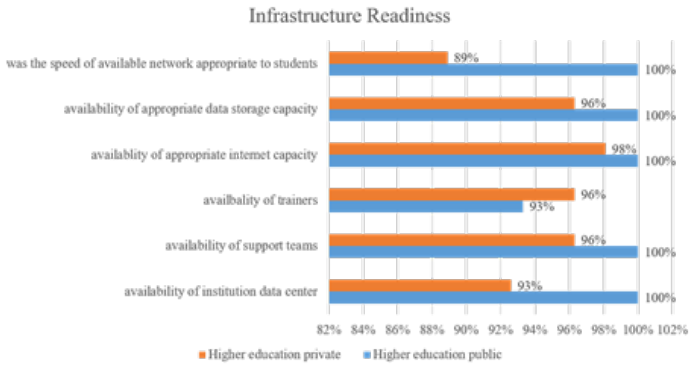


Figure 3: Infrastructure Readiness

It can be noted that more students accessed the available online platforms in the fourth week in comparison with the first week. The higher education statistics showed an improvement in infrastructure in the distance learning system. The reason behind this increase is that MOE supported students and instructors who needed laptops or Internet access. In addition, the higher education maintained its efficiency in having well-trained staff which increases the satisfaction of the online learning among instructors. The Table shows the improvement in the services that the MOE has provided to students and instructors.

Table 1: Surveys' data in the first and fourth week

Aspect	Higher education 1st week	Higher education 4th week
Online content not ready	10%	6%
Teachers do not accept distance learning technology	18%	4%
Quality of video and sound issue while using live streaming	29%	24%
Weakness of internet at teacher's home	33%	25%

Another aspect that was considered in the survey is the average studying hours for students per day. Figure 4 depicts the number of studying hours for higher education students per day. It can be noticed that 90% of students spend around nine hours in distance learning whereas a minority spend around three to four hours per day in online learning.

Figure 4: Number of Studying hours

8. Challenges of practical implementation: lessons learned

This section summarises the main challenges faced by higher education institutions during the transition to learning by distance. The greatest challenge was time limitations as the transition period was very short and institutions had to work intensively to provide sufficient support to students and faculty members. This challenge was mainly faced by the Information Technology (IT) department as they received a huge number of technical inquiries related to connections and clarity of online learning applications.

Another major challenge is examination methods in distance learning as institutions should maintain integrity and credibility when determining a method of assessments as exams will be conducted electronically with a highly secured proctoring system that can monitor the students' environment and detect any cheating behaviors. To assure the efficiency of such exams, universities should perform multiple simulation scenarios for conducting exams.

Moreover, managing laboratory courses in distance learning is highly challenging as many experiments require hardware implementations that need a physical presence of instructors and students to be properly performed. In order to solve this issue, laboratory experiments are currently conducted via the use of simulation tools and there is an investigation on whether or not simulations are enough to run laboratory experiments. Also, managing art classes across higher education is challenging and there should be proper planning to ensure proper delivery of the learning outcomes.

For the admission of the next academic year, a big challenge facing higher education institutions is regarding admission requirements and acceptance, with the current disruption of national and international exams such as EMSAT, IELTS and TOFEL tests. Thus, institutions should explore options and be prepared for next year admission.

Finally, conducting practicums and internships for juniors, seniors and graduate students is extremely challenging especially for students graduating from educational and medicine majors as they have to join practicums and internship programs to be able to get a job and to graduate from universities.

9. Recommendations and future research

The COVID-19 pandemic has significantly changed the higher education sector as it has allowed students and instructors to interact virtually. Although students and instructors were physically isolated, they devoted their time and effort to preserve business continuity of their organisations, both in teaching and research. This pandemic played a vital role in motivating researchers in higher education institutions to conduct extensive research in the areas of smart learning and artificial intelligence to support their and other institutions in this crisis. Therefore, the next step for all researchers, instructors and leaders in higher education is to work collaboratively to overcome the aforementioned challenges to assure fair and high standards of knowledge delivery along with high quality online learning. This will require great dedication and enthusiasm to solve these issues and maintain a continuity of learning. Thus, the future directions will be towards developing robust assessment models, laboratory courses, internship programmes and a creditable admission system where all possible scenarios are explored.

10. Conclusion

Online learning became of great interest in the educational sector due to the recent emergence of various learning applications. The COVID-19 outbreak forced higher education institutions in the UAE to close and shift towards distance learning as a precautionary measure to contain the virus.

This paper captures the experience of distance learning across higher education institutions across the UAE during the COVID-19 pandemic. This paper aims to discuss universities' transition to distance learning with the use of the available online educational platforms. This means that the existing online learning algorithms, platforms and resources in higher education institutions were developed in order to establish a distance learning system and to maintain learning continuity. Institutions created a preparedness plan to deal with the current situation and to avoid disruptions to teaching and research. This plan included possible challenges that may be encountered along with the possible solutions and possible future scenarios. Moreover, the UAE government along with the Ministry of Education (MOE) significantly supported the higher education sector to reduce the impact of challenging situations and improve the efficiency of distance learning. In addition, MOE has monitored, governed, observed and regulated the online learning implemented across higher education institutions in the UAE.

It is worth noting that this pandemic has paved the way for a new era of a learning system that will shape the future teaching methodologies where it will be based on smart and sophisticated systems. The role of online learning will shift from being an off-the-shelf emergency solution into an effective learning mechanism that will create new opportunities and supplement existing traditional learning methods. This will definitely require further research, investigations and development to cover all educational aspects and fulfil the requirements of effective learning and teaching.

Acknowledgment

The authors would like to thank the leadership in the Ministry of Education for supporting our research and granting access to all needed information. We would also like to extend the gratitude to the support of the departments for backing the work with proper documentation.

References

Almaiah, M. A., & Alyoussef, I. Y. (2019). Analysis of the effect of course design, course content support, course assessment and instructor characteristics on the actual use of e-learning system. *IEEE Access, 7,* 171907–171922.

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K., & Sabu, K. (2020). Covid-19 in higher education literature database (CHELD v1): An open access systematic literature review database with coding rules. *Journal of Applied Learning & Teaching, 3*(2), 1–6.

Çakıroğlu, Ü., Kokoç, M., Gökoğlu, S., Öztürk, M., & Erdoğdu, F. (2019). An analysis of the journey of open and distance education: Major concepts and cutoff points in research trends. *International Review of Research in Open and Distributed Learning, 20*(1), 1-20.

Cheawjindakarn, B., Suwannatthachote, P., & Theeraroungchaisri, A. (2013). Critical success factors for online distance learning in higher education: A review of the literature. *Creative Education, 3*(08), 61-66.

Crawford, J., Butler-Henderson, K., Rudolph, J., Bashar, M., Glowatz, M., Burton, R., Magni, P., & Lam, S. (2020). Covid-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Teaching and Learning, 3*(1), 9-28.

Demir Kaymak, Z., & Horzum, M. B. (2013). Relationship between online learning readiness and structure and interaction of online learning students. *Educational Sciences: Theory and Practice, 13*(3), 1792–1797.

FCSA. (n.d.). *The UAE government's initiatives to combat the covid-19 crisis*. https://fcsa .gov .ae/en -us/Documents/ The\%20UAE\%20Government\%20Initiatives\%20to\%20 combat\ %20Covid\%2019.pdf.

MOE. (n.d.). *Organization chart*. https://www.moe.gov. ae/En/AboutTheMinistry/Pages/OrgChart.asp.

Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning, and distance learning environments: Are they the same?. *The Internet and Higher Education, 14*(2), 129-135.

Perry, E. H., & Pilati, M. L. (2011). Online learning. *New Directions for Teaching and Learning, 128*, 95–104.

Sadera, W. A., Robertson, J., Song, L., & Midon, M. N. (2009). The role of community in online learning success. *Journal of Online Learning and Teaching, 5*(2), 277–284.

The National. (2020). *How to donate to UAE charities helping those affected by covid-19*. https://www.thenational.ae/ business/money/ how-to-donate-to-uae-charities-helping-those-affected-by-covid-19-1.1002315.

Topper, A., & Lancaster, S. (2016). Online graduate educational technology program: An illuminative evaluation. *Studies in Educational Evaluation, 51*, 108–115.

UAE. (2020). *Distance learning in times of covid-19*. https://u. ae/en/information-and-services/education/distance-learning-in-times-of-covid-19.

UNESCO. (n.d.). *1.3 billion learners are still affected by school or university closures, as educational institutions start reopening around the world*. https://en.unesco.org/news/13-billion-learners-are-still-affected-school-university-closures-educational
-institutions.

Vo, H. M., Zhu, C., & Diep, N. A. (2017). The effect of blended learning on student performance at course-level in higher education: A metaanalysis. *Studies in Educational Evaluation, 53*, 17–28.

WHO. (n.d.). *Coronavirus*. https://www.who.int/health-topics/ coronavirus#tab=tab 1.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Novel coronavirus (COVID-2019) pandemic: Common challenges and responses from higher education providers

Thathsara D. Maddumapatabandi[A] — [A] *Senior Lecturer, Sri Lanka Technological Campus, Sri Lanka*

Kelum A.A. Gamage[B] — [B] *Senior Lecturer, James Walt School of Engineering, University of Glasgow, Scotland, UK*

Keywords

COVID-19;
higher education;
online delivery;
pandemic;
quality assurance;
student learning.

Article Info

Received 30 July 2020
Received in revised form 4 November 2020
Accepted 11 November 2020
Available online 11 November 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.20

Abstract

There has been an unprecedented impact on the higher education sector from the novel coronavirus (COVID-19) since the first reports in Wuhan, Hubei Province, China. As it has rapidly become a global pandemic, universities had to implement appropriate policies for responding to it. Most higher education providers have adapted a range of online learning, teaching and assessment approaches as a response to the pandemic. This paper systematically reviews such responses from higher education providers in various parts of the world and evaluates the challenges and impacts on supporting students in learning and teaching during COVID-19.

1. Introduction

The novel coronavirus (COVID-19) has triggered an outbreak that was first identified in Wuhan City, Hubei Province, China in November 2019 (Syed, 2020). Since then, viral cases were reported rapidly not only in Asian countries, but also in Europe, Africa, the Americas and Australia leading to a global deadly pandemic (Global Center for Health Security, 2020). With the absence of medicine or vaccine to successfully treat against COVID-19, the number of cases continues to increase, and many countries already experience the second wave of the coronavirus.

Social distancing and self-isolation are highly recommended as preventive measures and have significantly impacted on all educational branches: primary, secondary, higher education and research (La et al., 2020). Public health officials recommend social distancing to flatten the infection curve and to reduce the fatalities upon closure of universities and schools around the world (Murphy, 2020). Social distancing or physical distancing has been identified as the most important pandemic precaution as it reduces interpersonal contact, minimising the community transmission especially in dense social networks such as university campuses (Rashid & Yadav, 2020).

For example, Figure 1 shows the number of learners (i.e. learners at pre-primary, primary, lower-secondary, upper-secondary, and tertiary levels of education) impacted by national closures of educational systems worldwide as of March 23, 2020, according to figures released by UNESCO (McCarthy, 2020). At the beginning of the pandemic, over 1.3 billion students have been impacted worldwide as the whole world came to a virtual standstill. Figure 2 depicts the state of disruption and the proportion of affected tertiary education students out of the regional total tertiary student populations as of April 8, 2020 (World Bank Group, 2020a). Regardless of the region, rapid response plans were put in place to coordinate the required massive efforts due to the closing down of entire education systems throughout the world. The global survey report of the IAU (International Association of Universities) has clearly presented the impact of COVID-19 on higher education around the world on different aspects including teaching and learning, international student mobility research, key challenges, and potential opportunities and changes in financials (Marinoni et al., 2020).

Scientists have foreseen the necessity of long-term plans in all aspects to mitigate the worldwide pandemic. It has impacted both local and international degree programmes, research, recruitments, funding, and many more activities (Bolton, 2020; Pietrocola, 2020). The UNESCO Director-General has stated: "We are entering uncharted territory and working with countries to find hi-tech, low-tech and no-tech solutions to assure the continuity of learning" (UNESCO & IESALC, 2020). Additionally, UNESCO's Assistant Director-General for Education emphasised: "We need to come together not only to address the immediate educational systems" (UNESCO & IESALC, 2020).

In response to the closure of all academic institutions including schools and universities, UNESCO recommended distance learning using online platforms, and the approaches of distance learning are a timely consideration to continue education with minimal disruption. COVID-19 infections had spread throughout the world so rapidly that the WHO declared a pandemic on 11 March 2020 (Rashid & Yadav, 2020). The below data and statistics clearly depict the huge impact on higher education at the early stages of this pandemic. It had been reported that from mid-May 2020, EU/EEA countries have started to partially re-open schools as shown in Figure 3 below (European Centre for Disease Prevention and Control, 2020). The UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) highlights the importance of initiating quality and equity of higher education in the short, medium, and long term during the global COVID-19 outbreak.

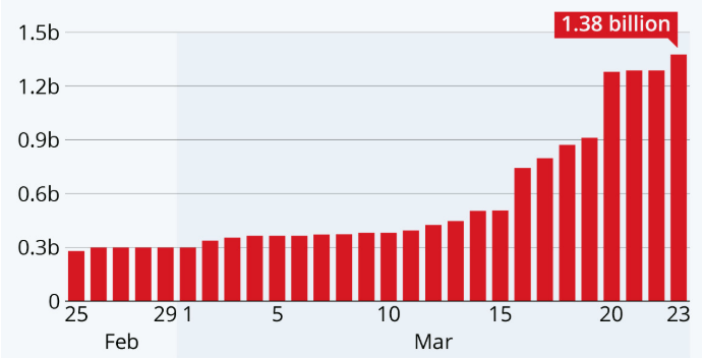


Figure 1: Impact of COVID-19 on global education; learners enrolled at pre-primary, primary, lower-secondary, upper-secondary, and tertiary levels of education (McCarthy, 2020)..

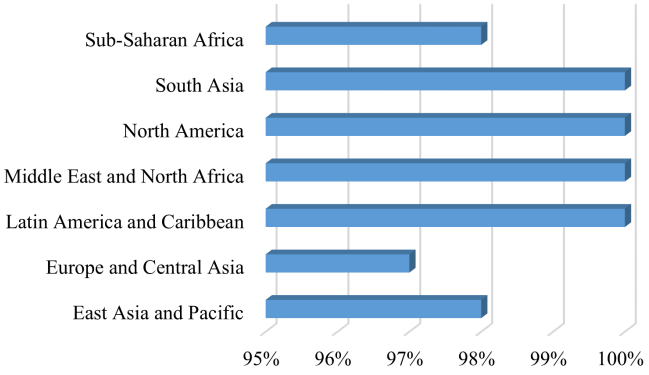


Figure 2: Total affected tertiary education students by region (World Bank Group, 2020a).

Although originally, online education was oftentimes used as a supplement to regular education, the outbreak of COVID-19 has forced online education to be put into practice as an immediate solution to mitigate the discontinuity of education (Tamura, 2008; Naciri et al., 2020). Action plans have been adopted based on the accessibility of infrastructure and resources to obtain the best outcome in online remote education.

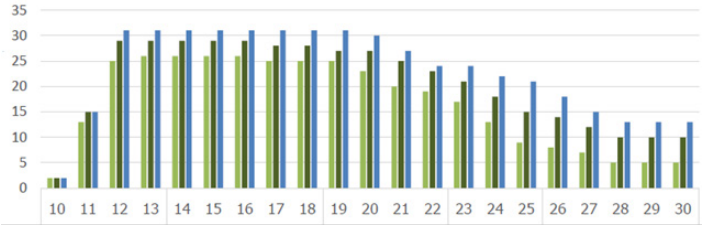


Figure 3: Total number of EU/EEA countries and the UK (N=31) that enacted some form of school closure during the pandemic[1] (European Centre for Disease Prevention and Control, 2020).

2. Methodology

The resource base for the review presented in this paper consists of citation databases of peer-reviewed literature, the review of web-based provisions of selected universities, institutional and national policy documents, survey reports, and other studies. The search was conducted based on keywords of "COVID-19, university or higher education, online education/learning/teaching" of the title and abstract.

This paper systematically presents the common challenges and approaches taken by the higher education sector in response to COVID-19 as a result of the worldwide lockdowns and social distancing. It summarises the impacts of COVID-19 on academic delivery and assessments and discusses the technologies used by the academic community to minimise the impacts. Impacts on students as well as staff including their mental health and wellbeing are also explored. The paper also highlights the importance of quality assurance mechanisms, and summarises the approaches taken by the higher education providers to strengthen the quality assurance mechanism during this period.

3. Academic delivery

Education cannot be put on hold and it has become a consensus to proceed with the next generation information technologies. There is no doubt that most universities and related academic institutions had no solid plan to implement during a sudden unforeseen pandemic. The resistance to adaptation under emergency conditions can swiftly expand the spread of the virus. Utilising online technologies for educational settings resulted in a reduction of the transmission of the coronavirus (i.e. reproductive value, R). They greatly reduce the potentially big clusters due to reduced social contacts, while reducing the R-value to manageable levels (Park et al., 2020). The abrupt interruption of face-to-face teaching may inevitably require adequate time to switch entirely to a virtual environment, mediated by different technological tools. All academic institutions including universities, colleges, and schools recognise that adjustments and online platforms are essential for delivery and assessment methods to maintain social distancing and to practice remote learning (Viner et al., 2020). However, there are serious aspects to consider in terms of teaching disciplines, including what and how to teach paying careful attention to the workload and teaching environment (Ali, 2020).

Transforming all existing course modules to an online mode requires well-planned, highly structured lesson plans and teaching materials, including audio and video content with IT support teams. In ramping up capacity to teach remotely at short notice, academics and administrative officials had to take pragmatic approaches to manage educational consequences during the crisis (Daniel, 2020). In the case of large-scale school closures, continuity of education has been initiated through partnering with television and radio stations as a public broadcast, according to a given timetable for essential basic subject matters. It has been reported that there can be several types of online learning, namely online support, asynchronous training, synchronous training, and hybrid training (Chen et al., 2005). State education agencies have provided guidelines and recommendations stating best practices for remote learning during the closure of education systems (Reich et al., 2020).

Moreover, taking care of all the online module delivery, there are specific basic sciences and application-based programmes, such as engineering, medical, agricultural degrees, that require laboratory practical sessions to enhance students' hands-on experience and related laboratory work. Hence, courses with a high level of hands-on components have the greatest impact on laboratory experiments, clinical, performing arts, and research laboratories. Particularly, students involved in these fields need much attention for completing essential learning components to fulfil their graduation requirements. These aspects can be addressed partially by providing them with video links to watch the experiments and conducting sessions through virtual online labs or providing them with a data set to replicate the lab measurements, so that students can do the analysis and complete relevant reports and assessment tasks. Deakin was among the first of the universities to conduct laboratory components accompanying both remote laboratories and lab kits (Long, 2020).

It is recommended that faculty consider two phases of teaching involving offline self-learning along with online teaching (Bao, 2020). By combining online learning and self-learning can effectively overcome poor pre-class study preparation, participation, and lack of open and deep discussions and the live engagements. Among a set of educational approaches, flexible learning provides choices in the educational environment as a learner-centered educational strategy. Individual learners have the opportunity to choose when, where, and how learning occurs upon their choice, convenience to suit their desire which promotes easy, engaged, and effective learning (Huang et al., 2020). Open learning is among new learning modes which make learners more self-determined and independent and academics act as learning facilitators. One of the other characteristics of flexible learning is that learners are more responsible for their own learning setting goals, self-monitoring in achieving active learning.

1Totals are the sum of countries that had any form of school closure or restrictions in place at each specific point in time, including those with only partial closures in place.

4. Online technologies

Previous outbreaks of infectious diseases have led to the effective control of widespread diseases. Evidence could be provided from the 1918-1919 influenza pandemic, the 2009 H1N1 Flu pandemic or SARS, for instance (World Health Organization, 2009; Wong et al., 2005). Facilitating flexible online learning strategies is encouraged by the Chinese Ministry of Education based on six dimensions, namely: (1) infrastructure, (2) learning tools, (3) learning resources, (4) teaching and learning methods, (5) services for teachers and students and (6) cooperation between government, enterprises, and schools (Huang et al., 2020). Online education requires information and communication technologies (ICT) for the development and acquisition of knowledge from various modes including the internet, video/audio, and software to create an online learning environment (Basilaia & Kvavadze, 2020).

Not each university is well prepared for a complete online teaching and learning transformation. The readiness of both academics and students matters, apart from the necessity of technological support in the development of teaching capacities for virtual education. Different platforms have been experimented with to facilitate access to e-disciplines and to teach in e-classrooms through video streaming while simulating physical classroom settings (UNESCO & IESALC, 2020).

Internet access is not always possible and good connectivity with a stable bandwidth often lacking and not up to the required quality. Telecommunication facilities must be up to scratch and promoted nation-wide for uninterrupted e-learning. Facilitating necessary resources such as e-books and e-library facilities and encouraging self-studying is potentially a better approach for senior students.

Most commonly and widely used Learning Management Systems (LMS) such as Moodle and Kolibri have been used in facilitating connectivity between students and academics (REMS, 2020; World Bank Group, 2020b). Social media can also be used in a more meaningful way as an instant solution. Free social media sites such as Twitter, Facebook, LinkedIn, and Instagram create a channel allowing them to send announcements and information more easily as students, parents, faculty may all use social media on a regular basis. Furthermore, they can be customised in settings and group chats can be rendered private for more official conversations. This approach is more advantageous particularly as they are easily accessible on a variety of devices such as computers, tablets, and even on mobile phones (REMS, 2020). One of the other approaches would be to build a partnership with online education portals such as edX, Udacity, Udemy, Khan Academy or Coursera, providing students with the ability to continue their studies in the context of emergency remote learning until the time when in the longer run a more convenient and engaged setup is established (Powers & Azzi-huck, 2016).

Considering the difficulty in quick adjustments and the varied availability of infrastructure, it is important to offer flexibility in online platforms. The flexibility to deliver lectures and the availability of teaching materials and resources are not restricted to fixed time slots. Commonly used LMS platforms include Blackboard, SharePoint, and Moodle, as they give much room to engage both students and academics (Basilaia & Kvavadze, 2020). Moreover, the use of narrated PowerPoint slides enables self-learning opportunities for students who live in countries which have internet data restrictions. Institutions can use periodic tracking and participation checking to monitor students' online engagements.

There is a growing amount of documented evidence that enhances our understanding for conducting digital-based education during COVID-19 (Butler-Henderson et al., 2020). However, the suitability and feasibility of all these online tools depend on the availability of the correct hardware, software, networks, and storage capacity of relevant parties to drive smooth online learning and meet the required quality in online traffic and connectivity, especially for live and recorded sessions (Crawford et al., 2020). Hence, global challenges related to online infrastructure can be identified most commonly as issues with the internet. Low internet speed or weakness of the internet in many countries, or high prices for stable internet connections in most parts of the world, directly impact online education.

5. Assessment methods

Undoubtedly, online platforms are becoming more crucial to ensure uninterrupted education due to the coronavirus. Concerns have been raised about online technologies as regards continuous assessments and exams, in terms of ensuring authenticity, reliability, validity, consistency and standards, while maintaining the integrity of assessment methods. As COVID-19 rages all over the world, responsible health bodies are still unable to indicate when normal operations will resume, and how to estimate future developments. This unpredictable nature of COVID-19-related developments had caused cancellations and suspensions of continuous assessments and examinations by many examining bodies in most parts of the world, unfortunately (Merkl-Davies et al., 2001).

Due to restrictions and limitations associated with each discipline, it may be impossible to conduct assessments entirely on virtual online platforms. The absence of invigilators and supervisors to monitor assessment online could also be a major issue and may results in all the assessments to be considered as 'open book'. In this case, the lecturer should be innovative and creative enough to set assessments to test students' enquiry and problem-solving skills. As students are working remotely, there is no guarantee whether they work independently. Yet, there are ways of online evaluating methods using improved online platforms such as Moodle or Blackboard to conduct examinations. Preparation of question banks and using shuffled questions and answers provide more effective testing capabilities to minimise cheating (Ghabraie, 2020). It was reported that major international examinations have been suspended, including Cambridge IGCSE, Cambridge O Level, International AS & A Level, etc., which will eventually impact future student recruitment in higher education (Bandoh, 2001). Considerable thought has been put into

basing module grading on continuous assessment mode where possible. Examinations can still be planned on online platforms such as Moodle and Blackboard with a focus on assessing students' higher order thinking skills.

6. Other challenges

Remote learning guidance from the state education sector emphasises equity in access to online technologies and proper guidance as students will have varying levels of support and family supervision for remote learning. The importance of being attentive to students with special needs is highlighted in coping to help them during periods of disruption to provide accessible forms of learning (Reich et al., 2020). Universities and colleges have important decisions to make in response to sudden closures which could affect various stakeholders both in the short and long-term (Illanes et al., 2020). Undoubtedly, a notable number of students will fail to graduate on time, not being able to complete the necessary requirements due to a lack of infrastructure and support.

Delay in graduation will also be recommended for some of the graduate programmes, particularly those involving hands-on laboratory experience, field training, industrial training, etc. Due to the restrictions of having large events, graduation ceremonies and commencements will have to be performed either on virtual platforms/in drive-in type fashion or be organised in order to have minimal interactions while maintaining social distancing. Graduate and postgraduate level Masters and thesis/ public dissertation defenses may have to be conducted through online platforms such as Zoom or Google Meet allowing committee and public audience to stay connected (Sun et al., 2020).

As travelling is greatly limited throughout the world, its impact is manifold, including overseas research collaborations, international conferences, and many other academic and research activities. Further, these travel restrictions may also limit the new intake for the undergraduates and graduate programs, including international scholarships. And the on-campus orientation will have to be conducted in an online mode, while limiting opportunities for students to experience university life (Bevins et al., 2020; Chinazzi et al., 2020).

6.1 Impact on students

Studying from home has many challenges. The absence of a proper home environment – without a proper study room; distraction from family members including caring responsibilities for older family members, etc. – can negatively impact on students' ability to focus on their studies. Students being left isolated at home may lead to having a lack of self-discipline. Remote online education triggers other issues such as a lack of self-control and self-learning ability due to a lack of face-to-face interaction and supervision (Tamura, 2008). Apart from that, students from the lower socio-economic status may experience a stressful home environment as opposed to their peers from a higher socio-economic status where they could get the help in handling problems from the educated people surrounding them (Di Pietro et al., 2020). Due to the switch from physical to online education, a reduction in learning motivation as a result of a change in the way students interact can be expected (Di Pietro et al., 2020).

Attention is needed in terms of resources, especially from the students' end as well. Furthermore, the students' perceptions and aspirations are key aspects in shifting to a more self-directed learning environment from a conventional teacher-controlled environment (Ali, 2020). It is not reasonable to expect all the students to have PC's or laptops at home with proper working stations equipped with printers, scanners, etc. Some of the students might try to work using smartphones, although smartphones are not able to satisfy all the features that desktops or laptops do. Lack of data and expensive data packages have also restricted their online access, especially in developing countries, as they are not ready for the complete implementation of countrywide online education on such a short notice.

The COVID-19 outbreak has disturbed student life in various ways. Students who are coming to the end of one phase of their education, and those who are transitioning from school to tertiary education, or completing tertiary education to step into employment, are facing unavoidable challenges in their future environment. Students who planned to apply for scholarships and admission to foreign universities for higher education will also suffer long-term disadvantages as they enter the employment market.

Despite taking all the necessary actions for a proper continuation of remote learning, students encounter difficulties engaging properly in technical or vocational education, or any other training programmes. These programmes generally provide the key experience needed for a professional career. With the current COVID situation, it is near-impossible to provide such practical training. Graduate and final-year undergraduate students are required to complete their thesis projects, but as a result of the remote delivery, completion of projects becomes a complex matter. Most students are required to collect experimental data; complete field visits including collecting samples; engage in site investigations; visit foreign countries for their collaborations. As a result of the inability to perform experiments in a timely manner, there could be samples of no use and waste of all the expensive resources, particularly when it comes to activities in chemical and biochemical laboratories.

Proper care must be taken preserving sensitive samples and maintaining special laboratories (eg: UHV-Ultra-high vacuum). These include large and expensive equipment and machinery, where leaving them unattended and inactive for a prolonged time due to COVID-19 will noticeably reduce the usable lifetime. Fortunately, for those who are in the field of theoretical studies, data sciences and social sciences are unaffected due to the availability of a large number of online libraries, archives, and databases, and remote access to supercomputers to run simulations. Online video conferencing, for instance through Zoom, allows group meetings which facilitate periodic discussions and support from supervisors and advisors while sharing and

presenting their data and results. Most of the universities are going forward with online thesis defenses through online platforms, thus avoiding unnecessary delays in the graduation of postgraduate students.

6.2 Impact on academic staff

It is quite obvious that some of the senior academics resist new modes of delivery. In the absence of face-to-face communication, converting the content of a particular module for online delivery may be time-consuming. On top of that, there could be difficulties with adjusting to the use of more sophisticated online technologies. Putting greater effort while innovating and designing, is also important to increase the attention span of students rather than continuing their traditional delivery methods (Blankenberger et al., 2020). It is significantly dependent on the lecturers' capability to carefully turn students from passive recipients to engaged learners by making live sessions more interactive and encourage Q&A's and open discussions. The academics with conventional teaching practices may have fears which lead them to perceive themselves as unsuccessful teachers who fail in going forward with online delivery. Academics also could face a similar uncomfortable situation as students, when working from home and lacking a proper home environment to work peacefully and quietly. Therefore, empowering academics' desire and confidence in implementing ICT-integrated teaching is essential for effective academic delivery in the first place (Ali, 2020).

When it comes to the delivery of lectures, there are crucial tools involved in successful delivery such as body language, facial expressions, and lecturer's voice. These important aspects of teaching become restricted and hinder the outcome. To utilise the voice effectively, slowing down the lecturer's voice would help students to grasp the key knowledge points (Bao, 2020). The need for professional development for both academic staff and students is another crucial area to address, although it takes time. The computer literacy and video presentation skills and new technology to deliver lectures include online platforms such as Zoom and MS Teams. If a student needs extra help, the lecturer could accompany support from teaching assistants or answer questions through email or social media (WhatsApp, WeChat: Bao, 2020).

Faculty have little control over student engagement in their online learning environment. For example, students can easily skip classes or cheat when it comes to participation during online lectures. One approach to address this issue is by increasing students' inspiration and morale to actively engage in learning outside of the class by modifying reading and assignments relevant to their courses. Furthermore, it is the students' responsibility to adapt in order to thrive during ambiguous times such as the COVID-19 pandemic and develop proficiency in being a lifelong learner (Qadir, 2020).

6.3 Health and wellbeing

Undoubtedly, many individuals encounter a wide variety of emotions, such as being anxious, uncomfortable, stressed, depressed, and hopeless, due to the sudden, unexpected, and uncertain COVID-19 pandemic and lockdown (American Council on Education, 2020). Uncertainty in every aspect, such as changes in studies and their financial situations, triggers the question as to when life will be back to normal (Bolton, 2020). In general, it is critically important to address emotional and psychological challenges such as demotivation, both for students and academic staff. Studies have emphasised the fact that the prolonged closure of schools and universities, and home confinement under uncertain conditions, have serious effects on children's physical and mental health (Pragholapati, 2020). Loss of social contact and socialisation routines on a daily basis render students' mentality vulnerable.

In addition, isolation and home confinement can lead to adverse effects on socio-emotional balance (Gonzalez et al., 2020). This situation becomes even more serious with the uncertainty, fear, loss of hope, and high mortality rates, and infected cases along with the unavailability of a vaccine against COVID-19. Therefore, reports have stated that physiological and psychological impacts of quarantine are wide-ranging, substantial, and can be long-lasting. Stress-related health issues can appear due to academic workload pressure related to the sudden change in their lifestyles with a limited time-frame. Ultimately, this condition could cause suicide in extreme cases (Feast & Bretag, 2005).

Considering the situation where some of the students who have left their homes, within the same country or abroad, had to adjust to a situation of confinement since they are unable to return to their homes due to restrictions imposed and closure of airports and borders. The isolation associated with self-confinement leads to the loss of social contact and socialisation routines that are an essential part of a student's daily experience. Therefore, the disruption of their socio-emotional balance will negatively affect their mental health (UNESCO & IESALC, 2020). According to a survey conducted in late March, 75% of higher education students in the U.S. reported they have suffered from anxiety and stress. There are similar results from European surveys of exchange students conducted around the same time (Wim & Benke-Åberg, 2020).

According to Figure 4, 41.2% of the respondents reported different levels of anxiety and stress during the period. 31.4% of those who had not been able to start their exchanges experienced anxiety and stress to a great extent, and 30.6% of those who had stayed in the exchange destination experienced these emotions to a very substantial extent. Moreover, 47.5% had not decided whether to stay or return and 47.5% had returned to their countries. The higher percentage could be a result of the additional stress because of uncertainty with their exchange and decision making.

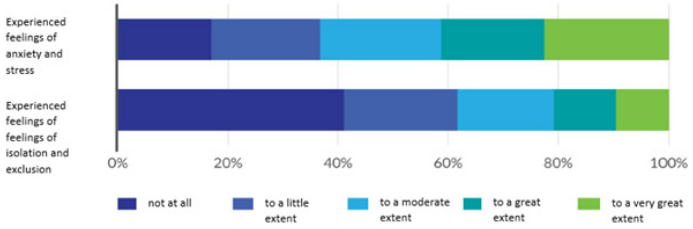


Figure 4: Feelings of anxiety and isolation (Wim & Benke-Åberg, 2020).

It is imperative to pay attention to the mental health and integrate psychological services into the existing academic programmes (UNESCO & IESALC, 2020). The above statistics depict the stress level associated with students at the very early stages of this pandemic and according to the most recent web-based cross-sectional survey conducted in August in Bangladesh also revealed serious impacts on students. Among university students, 82.2 % were experiencing mild to severe depression symptoms and 87.7 % of students were found to have mild to severe anxiety symptoms (Islam et al., 2020). As the COVID-19 pandemic turned out to be devastating and challenging throughout the world, both governments and universities are required to work together to reduce depression and anxiety among students, at least by providing proper mentoring.

Not only mental health, but also physical health can be affected in various ways. Universities were forced to suspend in-person athletics including extracurricular and non-essential student activities which negatively affected students' physical well-being (New York State Department of Health, 2020). In the long run, the lack of physical exercise will lower activity levels and ultimately lead to serious illnesses.

From an academic standpoint, and in support of mental health, it is desirable to provide personalised grading options and give the flexibility to choose credit/no credit or pass/fail grades in lieu of letter grades (American Council on Education, 2020).

7. Quality assurance

Transformations towards online teaching and learning do not just refer to conducting classes and assessments on virtual online platforms. Teaching methods and tools need to be designed and structured, the quality of delivery ensured, and there needs to be alignment between programme learning outcomes and expected student standards (The Quality Assurance Agency for Higher Education, 2020).

Barriers can be presented from the students' end such as mental health issues, learning and understanding difficulties of subject matters and issues with online facilities, etc. Therefore, assessment procedures need risk assessments factoring in students who cannot meet the standards for reasons out of their control.

The Institution of Engineering Technology (IET) has offered guidelines to protect the accreditation status of programmes realising the requirement to adjust the delivery of accredited degrees online in response to reduce the risk of coronavirus transmission (The Institute of Engineering and Technology, 2020). IET accepts the fact that mindful changes will not affect the overall quality of the learning outcomes as required for obtaining the best outcome on virtual platforms.

Laboratory sessions are most likely to be affected unless they are computer-based. It is recommended and encouraged to fulfil the laboratory component later in the programme (The Institution of Engineering and Technology, 2020). Five principles of high-impact teaching practices were found through a case analysis of Peking University. The first principle of appropriate relevance refers to the quantity and difficulty of teaching content in relation to academic readiness (Bao, 2020). Effective delivery is the second principle ensuring students' understanding. Third is the principle of sufficient support fulfilling necessary requirements. High-quality participation is the fourth principle and the last is the principle of contingency plan preparation (Bao, 2020). Consideration to revisit policies and regulations to provide sufficient flexibility for suitable amendments for needful requirements accompanying the virtual committee is a crucial aspect (The Quality Assurance Agency for Higher Education, 2020). Faculty will have to rethink long-term changes in curricula, assessments and approaches to teaching and delivery modes for a more suitable and effective use of online platforms.

It is a quite common scenario that some students consider online exams to be less challenging as a result of "open book", and they have the opportunity to get help from an online resource or their family members or friends. In mitigating such quality assurance issues, academics can utilise the maximum benefits and features of online platforms, for instance shuffling questions and use of question banks and restricting specific times for exams which could minimise academic offenses during examinations.

8. Plans for an uncertain future

The COVID-19 outbreak is unprecedented in its scale, due to globalisation. The many uncertainties associated with COVID-19 include its short-term and long-term implications. Given the ambiguity in the epidemiological and economic outlooks, it is hard to predict when all conventional educational activities can resume. Taking all the uncertainties into consideration, and understanding the global risk, implementing careful planning is called for.

As the COVID-19 pandemic is still not well understood, higher education requires planning for an uncertain future. In the U.S., universities and colleges have exhibited systematic planning based on student-teacher learning and teaching experience and infrastructure, and in analysing the epidemiological and economic outlooks (Bevins et al., 2020).

Another concern regards the impact of student and university partnerships, including internships, especially when it comes to undergraduate and graduate degree programmes. Student mobility and global university partnerships play an important role in their academic and career success in

many ways. Unfortunately, not all subjects and disciplines have the capability to achieve the desired outcomes. One of the big impacts is on international research conferences. Presentation skills in front of the live audience add value for students' personal development. The opportunity to meet people face-to-face and to have meaningful discussions not only to expand and share knowledge but also to get to know fellow researchers and build new research-based collaborations will be extremely limited. Job and career prospects will be adversely affected in the absence of opportunities to meet people in a social network.

One of the measures that could be applied in educational settings to avoid full closure in the long term is to introduce safety protocols. This includes introducing staggered time tables to conduct lectures, splitting classes into small groups, and increased spacing to reduce social contacts while providing a hygienic environment (Ministry of Health, 2020). Universities all over the world are facing critical financial issues due to the freezing of recruitments especially as a result of the loss of international student numbers. The reality of second and third waves of COVID-19 has highlighted the danger of community transmission as a result of on-campus interactions (Murphy, 2020).

According to the current outlook of COVID-19, four phases of higher education have been proposed in response to the continuation of education, and the suggested online learning adoption is shown in Figure 5 (Hill, 2020). Briefly, phase one is all about the rush to Zoom or some sort of online education for the sake of continuity of education. The second phase addresses the quality of emergency delivery and equitable access. Preparation for an extended transition is considered for the third phase. And phase four deals with the emerging new normal situation of post-COVID-19.

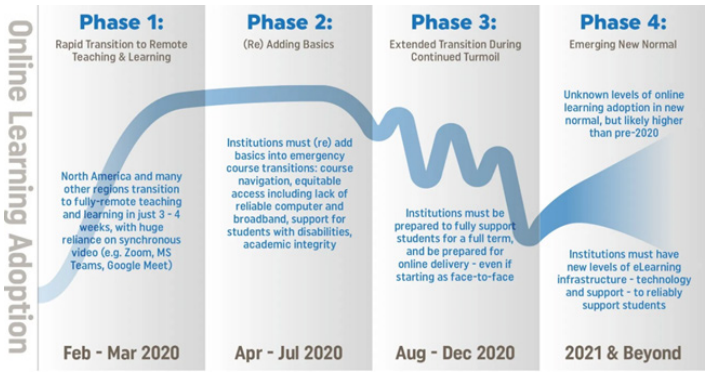


Figure 5: Multiple phases of higher education response to COVID-19 (Hill, 2020).

Looking at the nature of the COVID-19 pandemic, people have foreseen that strict lockdowns are not necessarily the best answer. Therefore, there is a wide variety of efforts worldwide to attempt to move forward mitigating the challenges brought by COVID-19. For instance, universities operate by delivering all classes remotely as much as possible, though essential laboratory and research activities face restrictions in terms of the number of participants and are conducted within a roster or cohorts with staggered timetables (European Centre for Disease Prevention and Control, 2020). Those who travel overseas may require to undergo a 14-day quarantine and to undergo a COVID-19 (PCR) test before entering into the community (New York State Department of Health, 2020). Universities will have to incorporate safety measures and to come up with carefully planned working models ensuring the safety of students and all staff to meet educational and research needs (Minnesota Department of Health, 2020).

9. Discussion and conclusions

It is hoped that this review study will be useful to various interested parties involved in education throughout the globe for a variety of reasons. Although compliance with safety measures and protocols reduces the risk of COVID-19 transmissions, returning to a 'normal' educational status quo ante will not be a straightforward, one-time transition. The process will involve stages of transitions in a controlled protocol-based series of events, as experts assess precautionary measures against second and third waves of the COVID-19 pandemic. The findings will help relevant authorities to improve education initiatives to cope and to keep both students and academics engaged during such an emergency pandemic situation. At least for higher educational settings, hybrid or blended forms will add great value to help improve in-person sessions. Open e-learning along with face-to-face interactive sessions is, for instance, applicable for practical laboratory modules.

Notably, this review study makes a contribution by providing an overview of online tools and methods that help in adapting to virtual platforms during an emergency as well as different important aspects and areas of education that require careful consideration. Undoubtedly, change from traditional teaching settings to the 'new normal' virtual education settings will never be a neutral transition, and we all should expect a certain amount of resistance and controversy during adoption.

Appropriate remediation is required to overcome significant disruptions to higher education which includes long-term plans to deal with the COVID-19 outbreak. This includes introducing support and training for higher education teachers to effectively engage with students in an online environment while continuing their research. Students should also need to be trained to be self-motivated and to act as self-directed learners. Such a teaching model will address a more scalable, more flexible, more engaging environment while keeping the cost reasonable with the required infrastructure.

Experts believe that 'circuit breakers' may need to be switched on and off until a successful COVID-19 vaccine is widely available. Other experts expect to keep COVID-19 restrictions for a year, leading to the education sector working on a roster. There can be implications for continuing to support students' living on-campus. As everyone is stressed, anxious, and depressed, being kind, empathetic, flexible, and compassionate will be highly appreciated. Future improvements such as the availability of 5G and artificial intelligence technology will lead to breakthroughs and are bound to address some of the current limitations by

enabling teaching and communication-rich platforms with high-speed networks. Better integration of technology and education will make students learn more autonomously, potentially following more effective teaching models.

References

Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology, 2*(1), 45-51.

Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies, 10*(3), 16 - 25. https://doi.org/10.5539/hes.v10n3p16

American Council on Education. (2020). *Mental Health, Higher Education and COVID-19. Strategies for Leaders to Support Campus Well-Being*. https://www.acenet.edu/Documents/Mental-Health-Higher-Education-Covid-19.pdf

Bandoh, C. (2001). Market news. *III-Vs Review, 14*(3), 16. https://doi.org/10.1016/s0961-1290(01)80087-9

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies, 2*(2), 113–115. https://doi.org/10.1002/hbe2.191

Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research, 5*(4), 1-9. https://doi.org/10.29333/pr/7937

Bevins, F., Bryant, J., Krishnan, C., & Law, J. (2020a). *Coronavirus: How should US higher education plan for an uncertain future?* https://www.mckinsey.com/industries/public-and-social-sector/our-insights/coronavirus-how-should-us-higher-education-plan-for-an-uncertain-future#

Blankenberger, B., Williams, A. M., & Williams, A. M. (2020). COVID and the impact on higher education : The essential role of integrity and accountability role of integrity and accountability. *Administrative Theory & Praxis, 42*(3), 404–423. https://doi.org/10.1080/10841806.2020.1771907

Bolton, P. (2020). *Coronavirus : Implications for the higher and further education sectors in England*. Commons Library Briefing, No. 8893, 1–21.

Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K., & Sabu, K. M. (2020). COVID-19 in Higher Education Literature Database (CHELD V1): An open access systematic literature review database with coding rules. *Journal of Applied Learning and Teaching, 3*(2), 1–6. https://doi.org/https://doi.org/10.37074/jalt.2020.3.2.11

Chen, N. S., Ko, H. C., Kinshuk, & Lin, T. (2005). A model for synchronous learning using the Internet. *Innovations in Education and Teaching International, 42*(2), 181–194. https://doi.org/10.1080/14703290500062599

Chinazzi, M., Davis, J. T., Ajelli, M., Gioannini, C., Litvinova, M., Merler, S., Pastore Y Piontti, A., Mu, K., Rossi, L., Sun, K., Viboud, C., Xiong, X., Yu, H., Halloran, M. E., Longini, I. M., & Vespignani, A. (2020). The effect of travel restrictions on the spread of the 2019 novel coronavirus (COVID-19) outbreak. *Science, 368*(6489), 395–400. https://doi.org/10.1126/science.aba9757

Crawford, J., Butler-Hunderson, K Rudolph, J., B., M., Glowatz, M., Burton, R., & Lam, S. M. S. (2020). View of COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning and Teaching, 3*(1), 9-28. https://journals.sfu.ca/jalt/index.php/jalt/article/view/191/163

Daniel, S. J. (2020). Education and the COVID-19 pandemic. *Prospects,* 91-96. https://doi.org/10.1007/s11125-020-09464-3

Di Pietro, G., Biagi, F., Costa, P., Karpinski, Z., & Mazza, J. (2020). *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets*. Publications Office of the European Union, 1-48. https://doi.org/10.2760/126686

European Centre for Disease Prevention and Control. (2020). *COVID-19 in children and the role of school settings in COVID-19 transmission*. https://www.ecdc.europa.eu/en/publications-data/children-and-school-settings-covid-19-transmission#no-link

Feast, V., & Bretag, T. (2005). Responding to crises in transnational education: New challenges for higher education. *Higher Education Research and Development, 24*(1), 63–78. https://doi.org/10.1080/0729436052000318578

Ghabraie, K. (2020). Computer-marked assessments to enhance learning in engineering education. International *Journal on Innovations in Online Education, 4*(1), 1-21. https://doi.org/10.1615/intjinnovonlineedu.2020033192

Global Center for Health Security. (2020). *Higher education COVID-19 pandemic recovery guide: General considerations*. 1–19. file:///C:/Users/Kaplan/AppData/Local/Packages/microsoft.windowscommunicationsapps_8wekyb3d8bbwe/LocalState/Files/S0/3/Attachments/Considerations,2020[10459].pdf

Gonzalez, T., de la Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). *Influence of COVID-19 confinement in students performance in higher education*. 1–25. http://arxiv.org/abs/2004.09545

Hill, P. (2020). *Revised outlook for higher ed's online response to COVID-19*. https://philonedtech.com/revised-outlook-for-higher-eds-online-response-to-covid-19/

Huang, R. H., Liu, D. J., Tlili, A., Yang, J. F., & Wang, H. H. (2020). *Handbook on facilitating flexible learning during educational disruption: The Chinese experience in maintaining undisrupted learning in COVID-19 Outbreak*. Smart Learning Institute of Beijing Normal University UNESCO, 1–54. https://iite.unesco.org/news/handbook-on-facilitating-flexible-

learning-during-educational-disruption/

Illanes, P., Law, J., Mendy, A., Sanghvi, S., & Sarakatsannis, J. (2020). *Coronavirus and the campus : How can US higher education organize to respond?* https://www.mckinsey.com/industries/public-and-social-sector/our-insights/coronavirus-and-the-campus-how-can-us-higher-education-organize-to-respond

Islam, M. A., Barna, S. D., Raihan, H., Khan, M. N. A., & Hossain, M. T. (2020). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. *PLoS ONE, 15*(8), 1–12. https://doi.org/10.1371/journal.pone.0238162

La, V., Pham, T., Ho, M., Nguyen, M., Nguyen, K.-L. P., Voung, T.-T., Nguyen, T. H.-K., Tran, T., Khuc, V.-Q., Ho, M.-T., & Vuong, Q.-H. (2020). *Policy response, social media and science journalism for the sustainability of the public health system amid COVID-19 outbreak : The Vietnam lessons*. 1–35.

Long, J. (2020). Anywhere-Anytime Engineering Education in a Complete Undergraduate Program. *International Journal on Innovations in Online Education, 4*(1). https://doi.org/10.1615/intjinnovonlineedu.2020033158

Marinoni, G., Land, H. Van., & Jensen, T. (2020). *The impact of covid-19 on higher education around the world iau global survey report*. https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf

McCarthy, N. (2020, March 26). *COVID-19's staggering impact on global education*. World Economic Forum. https://www.weforum.org/agenda/2020/03/infographic-covid19-coronavirus-impact-global-education-health-schools/

Merkl-Davies, Doris M., Brennan, N. (2001). Discretionary disclosure strategies in corporate narratives : Incremental information or impression. *The Irish Journal of Psychology, 32*(1–2), 4–13. https://doi.org/http://dx.doi.org/10.1680/geot.2008.T.003

Minnesota Department of Health. (2020). *Guidance for Mitigating COVID-19 at Higher Education Institutions*. 1–16. https://www.health.state.mn.us/diseases/coronavirus/schools/guideihe.pdf

Ministry of Health. (2020). *Control measures to deliver COVID-19 strategies: Education sector evidence review*. https://www.health.govt.nz/system/files/documents/publications/covid-19_control_measures_to_deliver_covid-19_strategies_education_sector_evidence_review-21apr20.pdf

Murphy, M. P. A. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy, 41*(3), 492-505. https://doi.org/10.1080/13523260.2020.1761749

Naciri, A., Baba, M. A., Achbani, A., & Kharbach, A. (2020). Mobile Learning in Higher Education: Unavoidable *Alternative during COVID-19. Aquademia, 4*(1), 1-2. https://doi.org/10.29333/aquademia/8227

New York State Department of Health. (2020). S*upplemental guidance for covid-19 containment at higher education institutions during the public health emergency*. https://www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/HigherEducationSupplementalGuidance.pdf

Park, S. W., Bolker, B. M., Champredon, D., Earn, D. J., Li, M., Weitz, J. S., ... & Dushoff, J. (2020). Reconciling early-outbreak estimates of the basic reproductive number and its uncertainty: Framework and applications to the novel coronavirus (SARS-CoV-2) outbreak. *MedRxiv,* 1-19. https://doi.org/10.1101/2020.01.30.20019877

Pietrocola, M. (2020). *Science education in pandemic times : What can we learn from COVID-19 on science technology and risk society*. 1–30.

Powers, S., & Azzi-huck, S. (2016). *The impact of Ebola on education in Sierra Leone*. http://blogs.worldbank.org/education/impact-ebola-education-sierra-leone

Pragholapati, A. (2020). *Covid-19 impact on students*. 1–6. https://doi.org/DOI 10.17605/OSF.IO/NUYJ9

Qadir, J. (2020). *How to thrive in (post-COVID-19) outcome-based education : A student primer*. 1–9.

Rashid, S., & Yadav, S. S. (2020). Impact of Covid-19 Pandemic on Higher Education and Research. *Indian Journal of Human Development, 14*(2), 340–343. https://doi.org/10.1177/0973703020946700

Reich, J., Buttimer, C. J., Fang, A., Hillaire, G., Hirsch, K., Larke, L., Littenberg-tobias, J., Napier, A., Thompson, M., & Slama, R. (2020). Remote Learning Guidance From State Education Agencies During the COVID-19 Pandemic: A First Look. *EdArXiv*, 1-17. https://doi.org/10.35542/osf.io/437e2

REMS. (2020). *Supporting Continuity of Teaching and Learning During an Emergency*. https://rems.ed.gov/docs/Supporting_Continuity_of_learning_and_education.pdf

Sun, L., Tang, Y., & Zuo, W. (2020). Coronavirus pushes education online. *Nature Materials, 19*(6), 687-687.. https://doi.org/10.1038/s41563-020-0678-8

Syed, A. (2020). Coronavirus: A mini-review. International *Journal of Current Research in Medical Sciences, 6*(1), 8–10. https://doi.org/10.22192/ijcrms.2020.06.01.002

Tamura, H. (2008). School's out, but class's on", the largest online education in the world today: Taking china's practical exploration during the covid-19 epidemic prevention and control as an example. *Journal of Chemical Information and Modeling, 53*(9), 287. https://doi.org/10.1017/CBO9781107415324.004

The Institution of Engineering and Technology. (2020). *COVID-19 impacts on accredited programme delivery and assessment: IET academic accreditation and coronavirus - programme delivery*. file:///C:/Users/Kaplan/AppData/Local/Packages/microsoft.windowscommunicationsapps_8wekyb3d8bbwe/

LocalState/Files/S0/3/Attachments/IET%20Academic%20Accreditation%20and%20Coronavirus%20-%20Programme%20Delivery[10461].pdf

The Quality Assurance Agency for Higher Education. (2020). *COVID-19 : Initial guidance for higher education providers on standards and quality*. https://www.qaa.ac.uk/docs/qaa/guidance/covid-19-initial-guidance-for-providers.pdf

UNESCO & IESALC. (2020). *COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations*. 1–46. https://bit.ly/34TOSvu

Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonell, C., & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. *The Lancet Child and Adolescent Health, 4*(5), 397–404. https://doi.org/10.1016/S2352-4642(20)30095-X

Wim, G. & Benke-Åberg, R. (2020). Student Exchanges in Times of Crisis Research report on the impact of COVID-19 on student exchanges in Europe. *Erasmus Student Network*, (1), 1-26.

Wong, M. L., Koh, D., Iyer, P., Seow, A., Goh, L. G., Chia, S. E., Lim, M. K., Ng, D., Ong, C. N., Phua, K. H., Tambyah, P., Chow, V. T. K., Chew, S. K., Chandran, R., & Lee, H. P. (2005). Online Health Education on SARS to University Students during the SARS Outbreak. *International Electronic Journal of Health Education, 8,* 205–217. https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ794097&site=ehost-live%5Cnhttp://member.aahperd.org/iejhe/template.cfm?template=currentIssue.cfm#volume8

World Bank Group. (2020a). *Remote learning, distance education and online learning during the covid19 pandemic*. https://doi.org/10.1596/33499

World Bank Group. (2020b). *The COVID-19 Crisis Response : Supporting tertiary education for continuity, adaptation, and innovation*. 1- 9. http://documents1.worldbank.org/curated/en/621991586463915490/The-COVID-19-Crisis-Response-Supporting-Tertiary-Education-for-Continuity-Adaptation-and-Innovation.pdf

World Health Organization. (2009). *Reducing transmission of pandemic (H1N1) 2009 in school settings: A framework for national and local planning and response*. 1–8. http://www.who.int/wer/2009/wer8434.pdf

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Virtual Reality as a tool for learning: The past, present and the prospect

Yewande M. Akinola[A] [A] *Department of Computer Science, The Federal University of Technology, Akure–Nigeria*

Oluwatoyin C. Agbonifo[B] [B] *Department of Information Systems, The Federal University of Technology, Akure–Nigeria*

Oluwafemi A. Sarumi[C] [C] *Department of Computer Science, The Federal University of Technology, Akure–Nigeria*

Keywords

Learning;
training;
virtual laboratory;
virtual reality.

Article Info

Received 17 July 2020
Received in revised form 26 August 2020
Accepted 27 August 2020
Available online 27 August 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.10

Abstract

The use of computing technologies in human learning is rapidly growing and advancing in various fields of learning and training. Virtual reality (VR) is one of the growing computer techniques used in schools and training institutes to help improve students' learning experience, create an interactive environment and build students' confidence while working in a physical environment. The benefits of using virtual reality are yet to be fully explored in all fields of endeavour. Virtual reality has been applied in the field of medicine for rehabilitation of patients and in training of medical students. In addition, it has been used in operations management, manufacturing processes and design as well as in the aviation industry for the dissemination of safety information, and maintenance. VR holds great and promising prospects in education, tourism, entertainment, and architecture. Hence, this paper presents a review of the trends of applications of virtual reality technologies, its potentials and prospects for learning in various fields.

Introduction

Virtual Reality (VR) refers to an immersive, interactive, multi-sensory, viewer-centered, three-dimensional computer generated environment that requires the combination of technologies to build such environments (Mazuryk & Origin of VR Technology.

According to Ellis (1994), the development of VR systems can be traced to the developments of vehicle simulation. The head-mounted periscope display was invented in 1916. It was the first of its kind to use a VR system. The head-mounted periscope displays developed by Continental Aviation and Engineering (CAE) are fibre-optic helmet-mounted displays which were designed to replace the bulky, dome-projection flight simulators. The work in vehicle simulation goes back to the work of Edwin Link in the late 1920's (Ellis, 1994). In 1929, a simple and mechanical device used as an instrument in flight training was developed for the first time which was termed a flight simulator (Baarspul, 1990). Furthermore, the Teleoperation technology was developed next in the 1940's with its system components developed during the early 1960's (Ellis, 1994). In the early 1950's, cinematographer Morton Heilig developed the multi-sensory simulator (Sensorama) with wind and scent production, vibratory sensation and 3D display (Drummond et al., 2014; Martirosov & Kopecek, 2017). Sensorama was an early head-mounted display which uses 3D visual, audio, haptic, olfactory stimuli to view 3D photographic slides, and was used in the tracking of head orientation and in creating an immersive experience (Mazuryk & Gervautz, 1996; Boas, 2013). Heilig also invented the Telesphere Mask that was patented in 1960. The Telesphere Mask was the first head mounted device (HMD). The headset provided stereoscopic 3D and wide vision with stereo sound (Mazuryk & Gervautz, 1996). Two Philco Corporation engineers, Comeau and Bryan developed the first precursor to the HMD known as Headsight in 1961. The Headsight is a helmet that has a video screen for each eye, a magnetic motion tracking system, cathode ray tube display and a tracking system to identify head position (Boas, 2013).

Further work by Ivan Sutherland pioneered the personalised graphics simulation which led to the first synthetic computer-generated display used in virtual environments. In 1963, Ivan Sutherland developed a Sketchpad which was the first interactive computer graphics item. The sketchpad uses a man-machine graphical communications system and a light pen to perform selection and drawing interactions (Mazuryk & Gervautz, 1996). In 1966, Thomas A. Furness III introduced a visual flight simulator for the Air Force (Kumar, 2014). Ivan Sutherland in 1968 advanced our knowledge in sketchpads with the invention of the "Ultimate Display". The Ultimate Display was the first computer-aided HMD with internal sensors that tracked the user's head movement (Mazuryk & Gervautz, 1996; Dixon, 2006; Kumar, 2014). Furthermore, Ivan Sutherland, developed a VR system in the form of a hardware "The Sword of Damocles'' in 1968. This VR system hardware was hung on the ceiling because it was big in size but had an appropriate head tracking system (Mazuryk & Gervautz, 1996, Boas, 2013).

Scholars from the University of North Carolina (UNC) in 1971 were able to develop the first prototype of a force-feedback system called GROPE (Mazuryk & Gervautz, 1996). In 1972, General Electric Corporation built a computerised flight simulator which featured a 180-degree field of vision by using three screens surrounding the cockpit (Mazuryk & Gervautz, 1996). Myron Krueger in 1975 invented an Artificial Reality system termed ''VIDEOPLACE'' which is a conceptual environment that had never been in existence. In this system, the silhouettes of the user are captured by the cameras and were projected on a large screen (Mazuryk & Gervautz, 1996). Aspen Movie Map was created in 1977 at the Massachusetts Institute of Technology. Aspen Movie Map was a crude virtual simulation of Aspen in which users could maneuvre the streets of Colorado. Also, in 1977 Tom DeFanti and Daniel J. Sandin invented Wired Gloves which worked with fibre-optics and the first one created were the Sayre glove (Boas, 2013).

McDonnell-Douglas Corporation integrated VR into its HMD (the VITAL helmet) for use in the military. A head tracker in the HMD followed the pilot's eye movements to match the computer-generated images. An advanced flight simulator was developed at the US Air Force's Aerospace Medical Research Laboratories (AFAMRL) by Thomas Furness. He developed the Visually Coupled Airborne Systems Simulator (VCASS) in 1982, visually coupled systems facilities for in flight, simulated control of threat and weapon systems (Mazuryk & Gervautz, 1996; Welch, 2009). Similarly, in 1984, the Virtual Visual Environment Display was designed at the NASA Ames, USA. This was a stereoscopic monochrome HMD – an off-the-shelf technology at the time (Mazuryk & Gervautz, 1996). The Virtual Programming Lab (VPL) company founded by Jaron Lanier in 1983 fabricated the first commercially available VR devices popularly known as DataGlove in 1984 and the Eyephone HMD in 1988 (Mazuryk & Gervautz, 1996, Dixon, 2006). The DataGlove heavily influenced the manufacturing of other devices such as the Power Glove by Mattel for the Nintendo Entertainment System in the 1980's (Boas, 2013). The VPL Company together with Thomas Zimmerman in 1986 developed wired gloves which enabled virtual objects to be grasped and moved. In 1986, Frederick Brooks developed Grope-III project which allowed a sense of touch within the VR using motorised hand grips and magnets that controlled remote robotic arms (Dixon, 2006). In 1989, a Binocular Omni-Orientation Monitor (BOOM) was commercialised by Fake Space Labs. BOOM is a small box containing two cathode-ray tube (CRT) monitors that can be viewed through the eye holes (Mazuryk & Gervautz, 1996).

In the second half of the 1980's at the University of North Carolina, an architectural walkthrough application was developed, called the UNC Walkthrough project. Several VR devices were constructed to improve the quality of this system which includes: head mounted devices (HMDs), optical trackers and the Pixel-Plane graphics engine (Mazuryk & Gervautz, 1996). In the early 1990's, Virtual Wind Tunnel was developed at NASA, Ames, USA. This application allows the observation and investigation of flow-fields with the help of BOOM and DataGlove (Mazuryk & Gervautz, 1996). In 1991 Antonio Medina, an MIT graduate and NASA scientist, designed Computer Simulated Teleoperation – a

VR system that allows the piloting of a Mars robot rover from Earth taking into account the time delay (Kumar, 2014). In 1992, Daniel Sandin and Thomas DiFanti developed CAVE (cave automatic virtual environment) which is a scientific visualisation system which uses immersive projection onto three walls and the floor of a room, although stereoscopic glasses are worn (Dixon, 2006). However, the users need to put on stereoscopic glasses, use a wand mouse to manipulate the environment and a head tracker to detect the user's changing spatial position in order to display a realistically changing perspective (Mazuryk & Gervautz, 1996; Dixon, 2006).

The ImmersaDesk was developed in 1996. In July 1995, Nintendo's R&D1 group, spearheaded by famed Gumpei Yokoi, launched the Nintendo Virtual Boy console which played 3D monochrome video games. It was the first and only dedicated stereoscopic portable console to display 3D graphics (Zachara & Zagal, 2009). In 1997, Georgia Tech and Emory University collaborated to use VR for the treatment of PTSD in war veterans (Rizzo et al., 2008) In 2007, Google introduced Street-view which an alternative source of data while it enhances online Maps service with street-level 360-degree pan images, video footage captured by cars fitted with custom camera equipment (Rundle et al., 2011). Similarly, Google introduced a stereoscopic 3D mode for street-view by Palmer Lucky in 2010 who presented the first prototype for Oculus Rift (Mykhailovska et al., 2019). In 2014, Sony announced Project Morpheus, a VR system which leverages the PlayStation4's (PS4) outstanding graphics computing power (Markwalter, 2014). HTC released its HTC VIVE SteamVR headset in 2016. The HTC Vive is designed to turn a room into a 3D space which allows users to move freely in a space (Egger et al., 2017) while in 2018, Facebook F8 announced a new headset prototype called Half Dome with a varifocal function (Mun et al., 2018).

Several advances have been made in the area of VR as reported by Mazuryk and Gervautz, (1996); Potkonjak et al. (2016). VR is now being used in a variety of ways, from providing immersive gaming experiences, to helping treat psychological disorders, to teaching new skills and even taking terminally ill people on virtual journeys. VR has many applications and with the rise in smartphone technology VR will be even more accessible (Gervautz, 1996). VR is also a technology, a communication interface and an environment that provides interactive experience (Riva, 2003). The field of VR has grown enormously and the practical applications of the VR technology has been reported in many fields (Holden, 2005). This accounts for the rise in the use of VR and its technology in various fields. Nowadays, research and commercial VR systems are used for simulation and training, industrial design, phobia therapy and other health-related applications, surgical planning and assistance, artistic applications, and in games (Welch, 2009).

The development of a VR system involves the collection of technological hardware, including computers, head-mounted displays, headphones, and motion-sensing gloves (Steuer, 1992). VR provides a unique medium suited to the achievement of several requirements for effective rehabilitation intervention in medical treatment (Sveistrup, 2004). Virtual laboratories address the lack of laboratory infrastructure in most high schools and community colleges, especially in areas with low socio-economic status (Desai et al., 2017). The application of VR as an aided learning technology ranged from aviation training, military, industrial machine operations and in medicine where surgeons can be trained in surgical techniques through the VR systems (Holden, 2005). Brown and Standen (2006) also reported the potential of VR as an educational tool for those with intellectual disabilities. It is thought that students are better able to master, keep in mind, and generalise new knowledge when actively involved in the creation of knowledge. This idea is termed constructivism according to the philosophy of pedagogy (Youngblut, 1998). Science is obviously connected to technology cognitively and practically (Babateen, 2011). In order to make simple, reduce risks, minimise time of completion and cost of some experiments in the educational sector and other sectors, professionals have studied the integration of both information and communication technology for a better learning experience (Babateen, 2011).

Hence, VR is considered to be a new model of computer-based learning that provides the individual learner with a broader range of scientific vision (Chow & Andrews, 2007; Babateen, 2011). Virtual environment displays interactive head-referenced computer displays that give users the illusion of displacement to another location. Virtual environments potentially provide a new communication medium for human-machine interaction (Ellis, 1994). The VR environments allow users to interact with objects and environments that ordinarily will not be possible. Virtual environments are considered to be a perfect environment for testing phenomena that may be too costly or too dangerous in physical reality (Shudayfat & Moldoveanu, 2012).

In the physical environment, students can learn and configure personal scientific knowledge in the laboratories. Laboratory activities which are integral components of science lessons enable students to build up their own experience using real materials (Tatli & Ayas, 2010). An alternative learning environment to physical laboratory learning is the virtual laboratory system, which contributes to the occurrence of meaningful learning (Bortnik et al., 2017). The virtual laboratories open up a wide range of experiments to audiences that would otherwise not be made possible (Schmid, 2017). Virtual laboratories are used in varied science programmes, especially to achieve a hands-on practical experience (Lambropoulos, 2007). Multimedia virtual laboratories are used to aid understanding of resource material that could provide solutions as well as overcome the restrictions associated with instrumentation devices in a real lab (Zurweni et al., 2017). In this paper, we discuss the benefits of VR as an aided learning tool, for training, and an alternative medium for human experience, its applications, the technological advancement and potential future applications.

Advantages and Disadvantages of VR Technology in Learning Environments

With the rapid growth of VR and its application in various fields, it is important to specify the advantages of VR

over the physical facilities while pointing out its potential disadvantages.

Advantages

VR systems provide a cost-efficient way of passing knowledge across in learning environments such as high schools, universities and science laboratories and in a variety of disciplines (Potkonjak et al., 2016), thus creating avenues for cost-savings. VR affords the opportunity for flexibility in learning environments. The conduct of laboratory experiments often requires hazardous reagents and apparatuses that might not be easily accessible and affordable, hence a virtual environment can easily be created to overcome these challenges (Potkonjak et al., 2016). Multi-modal Collaborative Virtual laboratories (MMCVL) are virtual chemistry labs designed to address the problem of lack of resources and safe use of expensive laboratory equipment (Desai et al., 2017).

The amazing benefit of VR systems is with flexibility attributes. Different virtual laboratory experiments involving different components (virtual apparatus) can be easily created (Potkonjak et al., 2016). VR labs can be used for experiments that would normally require equipment that is too expensive, complicated, unavailable and unsafe to use in an experiment. The virtual environment can recreate a safe teaching mode that bridges the gaps between traditional laboratories and modern approaches to learning (Chen et al., 2010; Bortnik et al., 2017). ChemCollective and Virtual ChemLab are two examples of virtual laboratories used by chemistry students, funded by the National Science Foundation under the leadership of Dr David Yaron at Carnegie Mellon University (Lerberg, 2008). VR labs also present students' the opportunity to repeat an experiment multiple times, manipulate parameters and settings that could influence the outcome of an experiment (Chen et al., 2010). Similarly, the VR systems enable students to receive immediate feedback to correct a defective understanding of concepts (Tatli & Ayas 2010; Chen et al., 2010; Bortnik et al., 2017).

Virtual laboratories improve interaction between students and instructors and support discussions between participants in virtual environments. Scheucher et al. (2009) designed a 3D Collaborative Virtual Learning Environment (3D CVLE) for physics education in which students and educators are able to work together in a collaborative way. Virtual laboratories provide instruments for education that are independent from place and time. It is able to carry instruction from closed walls of a classroom to anywhere with a computer and enables applications to become more dynamic with simulations (Tatli & Ayas, 2010). Furthermore, the VR simulators allow the embedding of performance metrics in the learning software, thus enabling continuous performance feedback (Thomsen et al., 2016). Cheng et al. (2010) designed a collaborative virtual learning environment for children within the autistic spectrum. The 3D empathy system was developed by employing empathy rating scale (ERS) to determine the understanding of empathic behaviours of participants after intervention.

Disadvantages

Despite the advantages of VR systems in learning environments, they do have their setbacks. Some setbacks of a virtual laboratory system include the requirement to process the expected knowledge into a computer system prior to use (Pearson & Kudzai, 2015). The VR can create a specific student's attitude such as lack of seriousness, responsibility and carefulness (Potkonjak et al., 2016). At the final stage of training, there is the need to apply real equipment, to be able to acquaint the learners with hands-on practical experience (Potkonjak et al., 2016).

Application of VR in learning experience

The extended functionalities that a virtual environment provides in research interest for distance learning has led to the construction of a wide range of applications that implement VR technology in order to sustain the learning process in Educational Virtual Environments (Alexiou et al., 2004). The VR technology is employed in various fields of science, art and education. Due to the rapid development of science and technology, VR technology has been diversified according to the level of interaction and immersion (Ran & Liu, 2013). The desktop VR system which is an interactive non-immersive system is a low-cost VR system that uses only the personal computers. It uses the computer screen as a window for participant interaction, thereby serving as the virtual environment (Ran & Liu, 2013). The distributed VR system is another technology that could be maximally applied in the educational field. The distributed VR system is a web-based VR environment which makes use of multiple physical locations in multiple users through network connections (Ran & Liu, 2013). In this system, the users can share information, work as a team, thereby creating a collaborative workstation and providing the opportunity and necessary technical support for distance learning (Ran & Liu, 2013). An example of a distributed VR environment for learning is C-VISions. C-VISions is a research project, which focuses on the application of a multi-user 3D environment for educational purposes (Alexiou et al., 2004). Also, Agbonifo et al. (2020) developed a desktop- VR-enabled chemistry laboratory platform for students' adaptive learning – to enable students to learn the titration experiment in a virtual laboratory environment before proceeding to the chemistry wet lab.

Application of VR technology in diverse fields

The advancement in interactive and immersive technologies had a noticeable impact on various styles of teaching and learning (Abulrub et al., 2011). Likewise, diverse professions have adapted and exploited the VR systems in the advancement of their various fields (Reznek et al., 2002). One area of VR application is in the architectural walkthrough system through the VR visualisation tool (Mazuryk & Gervautz, 1996). Though it might be impossible to exactly foretell what the future of VR holds, a generalised opinion can be reached on the future of VR systems by examining some ongoing VR research (Guttentag, 2010). In the bit to help students achieve their academic goals, different

models have been built to achieve learning. Way (2006) presented a model termed Applied Computing Technology Laboratory (ACT Lab) which was built on successful research programs. The ACT Lab is structured for flexibility, efficiency and a dynamic research program that expands the idea of undergraduate students' research activities. The virtual laboratory is a web based platform where students can get access to equipment, guidance or information and that allows collaboration between faculty members and helps create a learning interaction between the teacher and students. Similarly, Belloum et al. (2003) developed a Grid-based Virtual Laboratory Amsterdam (VLAM-G) for learning purposes in applied sciences. The VLAM-G is a grid-based virtual laboratory for remote experimental control and collaborative Grid-based distributed analysis. The need for virtual laboratories arise due to lack of training facilities. Abulrub et al. (2011) demonstrated the use of a 3D interactive VR visualisation system in preparing engineering graduates for practical experience of real industrial environments.

The VR technology has been beneficial in the training of medical students (Abulrub et al., 2011). Rosenthal et al. (2008) reported a high acceptance level of VR while training medical students. The virtual laboratory has helped improve students' skills on laparoscopy and their performance in the operating room. The various tasks performed with the virtual laboratory include: the angled scope task, grasp-and-clip task, intracorporeal knotting task and three-dimensional environment task (Rosenthal et al., 2008). The simulation-based training of surgical skills was meant to improve operation performance using VR technology (Thomsen et al., 2016). Proficiency levels have been proven to be among the most effective ways to train in technical skills. One of the numerous benefits of VR application can be found in the health sector or training of students in surgical operations such as training in phlebotomy and treatment of patients for disorders (Wandell, 2010; Carl et al., 2018). An obvious advantage of learning medical procedures by simulated practice is that there is no risk to the lives of patients in the event of a mistake (Wandell, 2010). The EyeSi simulator is a VR simulator used in ophthalmic and cataract surgery. It has an established measure of performance and evidence-based proficiency level (Thomsen et al., 2016). Wandell, (2010) also looked at the effectiveness of VR simulators in phlebotomy. The virtual IV system which is the VR simulation device designed to train students in intravenous fluid line insertion, contains a virtual phlebotomy training. Furthermore, McLay et al. (2010) investigated the beneficial effect of VR technology-aided training for the treatment of post-traumatic stress disorder (PTSD) patients.

VR technology offers a unique opportunity to disseminate exposure therapy (ET) which is a modality for treatment (Carl et al., 2018). McLay et al. (2010) reported the survey of using VR Exposure Therapy (VRET) and the traditional Exposure Therapy (ET), the report showed that all the patients in both groups improved considerably well with an average of 67% and 50% respectively. Carl et al. (2018) investigated the acceptability of the VRET and traditional ET technology in medicine, and showed that 76% of respondents opt for VRET over traditional ET for treatment, while 81 – 89% of college students preferred VRET over traditional ET. Carl et al. (2018) also reported the success of VRET in treating specific phobias, such as: fear of flying (aerophobia), fear of heights (acrophobia) and fear of animals (zoophobia).

The VR machinery and software consist of J&J Engineering biofeedback systems which have the ability to substitute the portable biofeedback units (StressErasers). The VRET function in such a way that the client computer provided 3D images through a head-mounted display (HMD) and a joystick controller to allow the client to move and interact with the stimulated world (McLay et al., 2010). Guttentag (2010), investigated the application of VR technology to tourism and its implication. The VR technology was applied in the aviation industry for effective transfer of safety knowledge to passengers on board an airline. This has been successfully disseminated through mobile VR on personal electronic devices (PEDs) such as smartphones and tablets of most passengers on-board (Chittaro et al., 2018). The interactive content of the VR technology was sent alongside with electronic tickets or boarding passes to passengers through their smartphones. Chittaro et al. (2018) explored the possible effectiveness of VR approach in making interactive safety briefings. The mobile VR application referred to as app was developed using Unity 4.5 game engine and *C#* programming language which shows a full 3D aircraft cabin environment (Chittaro et al., 2018).

Virtual manufacturing is defined as a computer system which is capable of generating information about the structure, status, and behaviour of a manufacturing system as can be observed in a real manufacturing environment (Mujber et al., 2004). VR in manufacturing is applied in design, prototyping, machining, assembly, inspection, planning, training and simulation (Mujber et al., 2004). The VR provides designers with a virtual environment at the concept design stage in the design of a product. The virtual prototyping is used in designing before the physical prototype is used to prove the design, alternatives, to do engineering analysis, manufacturing planning, support management decisions, and to get feedback on a new product from prospective customers (Mujber et al., 2004). Hadi et al., (2011) demonstrate the use of a 3D interactive VR visualisation system in preparing engineering graduates for practical experience of real industrial environments. Balogun et al. (2010) explored virtual tourism by designing a 3D Geo-spatial VR system for tourist centres and historical heritage to help manage and promote tourism thereby increasing the Gross Domestic Product (GDP) of the country.

Dixon (2006) surveys the history of various VR technologies used in the field of theatrical and performance arts. Some of the VR technologies are Placeholder, Osmose, Virtual Bodies, VR scenography in real time, ieVR's Mechanical and Blast Theory's Desert Rain. Placeholder premiered in 1993 is the much-celebrated project by Brenda Laurel and Rachel Strickland that opened up potential for virtual flight. Osmose (1994-1995), created by Char Davies, reported the VR system as a revolutionary fully embodied immersion technology which uses sophisticated data-suits to sense living immersive experience. Virtual Bodies: Dancing with the aid of Virtual Dervish (1994) was developed by Yacov Sharir and Diane Gromala, it is a visual body programmed in a continuous motion and undulates as if breathing like a living body. The Institute for the Exploration of VR used

VR tools to recreate and remediate theatre history. Also, VR technology is used as a prime scenographic medium to achieve a sense of immersion. Machinal (1999) used the staging configuration of ieVR's first production to pre-record moving 3D imagery of landscapes, objects and hyper-realistic machinery. Finally, Blast Theory's Desert Rain (1999) is the closest to VR performance event due to its aesthetic form which render it the most innovative and futuristic utilisation of performance VR.

Prospect of VR

The VR technology is invariably advancing with an increasing development of more systems to help improve human experiences. Studies are ongoing by researchers on six degrees of freedom (6DoF) positions and orientation-aware computer interfaces to support access to embedded information attached to the physical world all around us (Welch, 2009). The benefit will be employed in laboratories, the hallway, parks, city sidewalks and individuals will in the future see, hear, and interact with information that exists as an essential part of their immediate physical environment (Welch, 2009). With this advancement, the medical field will also be a benefactor of its numerous benefits, as doctors could be able to remotely treat patients through an image like a surrogate (medical avatar). The VR technology holds an advantage to therapists to be able to provide a wide range of controlled stimuli and monitor responses to treatment by patients. Workers and technicians can be directed on assembling and maintenance through VR technology. The blind can be given gaze-directed aural sight, and deaf people visual hearing through VR technology (Riva, 2003; Welch, 2009). Information and associated databases will be structured by physical location and time, enabling users to both store and retrieve past, present, and future information in the framework of physical locality and direction of gaze (Welch, 2009). In the education sector, visual education can include synchronous face-to-face interaction, group interaction, voice communication, examination of 3D models, projection of visual information in a PowerPoint window (Messinger et al., 2009). Also according to Dixon (2006), the potential of VR technology can be used for dance engagement in theatre and arts. In the teaching of history in school VR tools can help provide avenues for reconceptualisation of the past with some energy and excitement in the field (Allison, 2008).

Conclusion

VR technology will continue to have a beneficial role in various fields of study and training. In general, the review of current applications shows that VR can be considered a useful tool for diagnosis, therapy, education and training however, several barriers still remain. The PC-based systems, while being inexpensive and easy-to-use, still suffer from a lack of flexibility (Riva, 2003). It is obvious that VR can be used as an alternative in learning activities and proffering solutions to some challenges associated with inadequacy of equipment or facilities in the learning environment. The medical field has been able to apply VR in various aspects such as in training of medical students and treatment of diseases. The aviation industry has used the VR systems to aid the effective dissemination of information to passengers on-board in air transit. It also gives confidence to students to carry out the practical aspect of their studies without any physical damage and harm.

References

Abulrub, A.-H. G., Attridge, A. N., & Williams, A. M. (2011). Virtual reality in engineering education: The future of creative learning. IEEE Global Engineering Education Conference (EDUCON). *Learning Environments and Ecosystems in Engineering Education,* 751 - 757.

Agbonifo O.C, Sarumi O.A, & Akinola Y.M (2020). A virtual reality enabled chemistry laboratory platform for students' adaptive learning. *Research in Learning Technology.* Preprint

Alexiou, A., Bouras, C., & Giannaka, E. (2004). *Virtual laboratories in education*. In IFIP World Computer Congress, TC 3, (19-28). Springer, Boston, MA.

Allison, J. (2008). History educators and the challenge of immersive pasts: A critical review of virtual reality 'tools' and history pedagogy. *Learning, Media and Technology, 33*(4), 343-352.

Baarspul, M. (1990). A review of flight simulation techniques. *Progress in Aerospace Sciences, 27*(1), 1-120.

Babateen, H. M. (2011). The role of virtual laboratories in science education. *In 5th International Conference on Distance Learning and Education IPCSIT, 12,* 100-104.

Balogun, V. F., Thompson, A. F., & Sarumi, O. A. (2010). A 3D geo-spatial virtual reality system for virtual tourism. *The Pacific Journal of Science and Technology, 11*(2), 601-609.

Belloum, A. S., Groep, D. L., Hendrikse, Z. W., Hertzberger, B. L., Korkhov, V., Laat, C. T., & Vasunin, D. (2003). VLAM-G: A grid-based virtual laboratory. *Future Generation Computer Systems, 19*(2), 209 - 217.

Boas, Y. A. G. V. (2013). Overview of virtual reality technologies. *In Interactive Multimedia Conferenc*e, 1 - 6.

Bortnik, B., Stozhko, N., Pervukhina, I., Tchernysheva, A., & Belysheva, G. (2017). Effect of virtual analytical chemistry laboratory on enhancing student research skills and practices. *Research in Learning Technology, 25*, 1-20.

Carl, E., Stein, A. T., Levihn-Coon, A., Pogue, J. R., Rothbaum, B., Emmelkamp, P., & Powers, M. B. (2019). Virtual reality exposure therapy for anxiety and related disorders: A meta-analysis of randomized controlled trials. *Journal of anxiety disorders, 61*, 27-36.

Chen, X., Song, G., & Zhang, Y. (2010). Virtual and Remote Laboratory Development: A Review. *In Earth and Space 2010: Engineering, Science, Construction, and Operations in Challenging Environments*, 3843 - 3852.

Cheng, Y., Chiang, H. C., Ye, J., & Cheng, L. H. (2010). Enhancing empathy instruction using a collaborative virtual learning environment for children with autistic spectrum conditions. *Computers & Education, 55*(4), 1449-1458.

Chittaro, L., Corbett, C. L., McLean, G. A., & Zangrando, N. (2018). Safety knowledge transfer through mobile virtual reality: A study of aviation life preserver donning. *Safety science, 102*, 159-168.

Chow, A., Andrews, S., and Trueman, R. (2007). A 'Second Life': can this online, virtual reality world be used to increase the overall quality of learning and instruction in graduate distance learning programs. *In Proceedings of the Association for Educational Communications and Technology International Convention*. (Vol 2, 75-83). Bloomington, IN: Association for Educational Communications and Technology.

Desai, K., Belmonte, U. H. H., Jin, R., Prabhakaran, B., Diehl, P., Ramirez, V. A., & Gans, M. (2017, April). Experiences with multi-modal collaborative virtual laboratory (mmcvl). I*n 2017 IEEE Third International Conference on Multimedia Big Data (BigMM)* (376-383). IEEE.

Dixon, S. (2006). A history of virtual reality in performance. *International Journal of Performance Arts & Digital Media, 2*(1), 23 - 54.

Drummond, K., Houston, T., & Irvine, T. (2014). *The rise and fall and rise of virtual reality*. Vox Media.

Egger, J., Gall, M., Wallner, J., Boechat, P., Hann, A., Li, X., Chen, X & Schmalstieg, D. (2017). HTC Vive MeVisLab integration via OpenVR for medical applications. *PloS one, 12*(3), 1-14.

Ellis, S. R. (1994). What are virtual environments?. *IEEE Computer Graphics and Applications, 14*(1), 17-22.

Guttentag, D. A. (2010). Virtual reality: Applications and implications for tourism. *Tourism Management, 31*(5), 637-651.

Holden, M. K. (2005). Virtual environments for motor rehabilitation. *Cyberpsychology & behavior, 8*(3), 187-211.

Hui-Zhen, R., & Zong-Fa, L. (2013). Application and prospect of the virtual reality technology in college ideological education. *Fourth International Conference on Intelligent Systems Design and Engineering Applications,* 125-128. IEEE.

Kumar, D. (2014). Virtual Reality in the Real World. *IJRIT International Journal of Research in Information Technology, 2*(4), 309- 313.

Lambropoulos, N. (2007). User-centered design of online learning communities. *In User-centered design of online learning communities,* 1-28. IGI Global

Lerberg, B. (2008). *Virtual labs in a chemistry classroom.* OpenStax-CNX module: 1-5.

Markwalter, B. (2014). Entertainment and immersive content: What's in store for your viewing pleasure. *IEEE Consumer Electronics Magazine, 4*(1), 83-86.

Martirosov, S., & Kopecek, P. (2017). Virtual reality and its influence on training and education-literature review. *Annals of DAAAM & Proceedings*, 28.

Mazuryk, T., & Gervautz, M. (1996). *Virtual reality-history, applications, technology and future*, 1-72.

McLay, R. N., McBrien, C., Wiederhold, M. D., & Wiederhold, B. K. (2010). Exposure therapy with and without virtual reality to treat PTSD while in the combat theater: A parallel case series. *Cyberpsychology, behavior, and social networking, 13*(1), 37-42.

Messinger, P. R., Stroulia, E., Lyons, K., Bone, M., Niu, R. H., Smirnov, K., & Perelgut, S. (2009). Virtual worlds—past, present, and future: New directions in social computing. *Decision support systems, 47*(3), 204-228.

Mun, S., Whang, M., Park, S., Lee, D. W., & Kim, H. I. (2018). Overview of VR Media Technology and Methods to Reduce Cybersickness. *Journal of Broadcast Engineering, 23*(6), 800-812.

Mujber, T. S., Szecsi, T., & Hashmi, M. S. (2004). Virtual reality applications in manufacturing process simulation. *Journal of materials processing technology, 155,* 1834-1838.

Mykhailovska, O. V., Chervynskyi, A. I., & Fokin, D. P. (2019). The prospects of Virtual Reality (VR) technology in educational process and business. *Науковий вісник Полісся,* (1), 139-147.

Potkonjak, V., Gardner, M., Callaghan, V., Mattila, P., Guetl, C., Petrović, V. M., & Jovanović, K. (2016). Virtual laboratories for education in science, technology, and engineering: A review. *Computers & Education, 95,* 309-327.

Reznek, M., Harter, P., & Krummel, T. (2002). Virtual reality and simulation: training the future emergency physician. *Academic Emergency Medicine, 9*(1), 78-87.

Riva, G. (2003). Applications of virtual environments in medicine. *Methods of information in medicine, 42*(05), 524-534.

Rizzo, A. A., Graap, K., Perlman, K., McLAY, R. N., Rothbaum, B. O., Reger, G., Parsons,T., Difede, J & Pair, J. (2008). Virtual Iraq: initial results from a VR exposure therapy application for combat-related PTSD. *Studies in health technology and informatics, 132*, 420.

Rosenthal, R., Gantert, W. A., Hamel, C., Metzger, J., Kocher, T., Vogelbach, P., & Hahnloser, D. (2008). The future of patient safety: Surgical trainees accept virtual reality as a new training tool. *Patient safety in surgery, 2*(1), 16.

Rundle, A. G., Bader, M. D., Richards, C. A., Neckerman, K. M., & Teitler, J. O. (2011). Using Google Street View to audit neighborhood environments. *American journal of preventive medicine, 40*(1), 94-100.

Scheucher, B., Bayley, P., Gütl, C., & Harward, J. (2009). Collaborative virtual 3d environment for internet-accessible physics experiments. *International Journal of Online Engineering, 5*(REV 2009), 65-71.

Schmid, C. (2007). Grid technologies for virtual laboratories in engineering education. *International Journal of Online Engineering (iJOE), 4*(1).

Shudayfat, E., Moldoveanu, F., & Moldoveanu, A. (2012). A 3D virtual learning environment for teaching chemistry in high school. *In Annals of DAAAM for 2012 & Proceedings of the 23rd International DAAAM Symposium* (Vol. 23, No. 1, 2304-1382).

Standen, P. J., & Brown, D. J. (2006). Virtual reality and its role in removing the barriers that turn cognitive impairments into intellectual disability. *Virtual Reality, 10*(3-4), 241-252.

Steuer, J. (1992). Defining Virtual Reality: Dimensions Determining Telepresence. *Journal of Communication, Autumn 42*(4), 73-93.

Sveistrup, Heidi. "Motor rehabilitation using virtual reality." *Journal of neuroengineering and rehabilitation 1.1* (2004): 10.

Tatli, Z., & Ayas, A. (2010). Virtual laboratory applications in chemistry education. *Procedia-Social and behavioral sciences, 9,* 938-942.

Thomsen, A. S. S., Bach-Holm, D., Kjærbo, H., Højgaard-Olsen, K., Subhi, Y., Saleh, G. M., & Konge, L. (2017). Operating room performance improves after proficiency-based virtual reality cataract surgery training. *Ophthalmology, 124*(4), 524-531.

Way, T. P. (2006). A virtual laboratory model for encouraging undergraduate research. *ACM SIGCSE Bulletin, 38*(1), 203-207.

Welch, G. F. (2009). History: The use of the kalman filter for human motion tracking in virtual reality. *Presence: Teleoperators and Virtual Environments, 18*(1), 72-91.

Youngblut, C. (1998). *Educational uses of virtual reality technology* (No. IDA-D-2128). Institute for defense analysis, Alexandria VA.

Zachara, M., & Zagal, J. P. (2009). Challenges for success in stereo gaming: A Virtual Boy case study. *In Proceedings of the international conference on Advances in Computer Enterntainment Technology* (99-106).

Zurweni, Wibawa, B., & Erwin, T. N. (2017). Development of collaborative-creative learning model using virtual laboratory media for instrumental analytical chemistry lectures. *In American Institute of Physics Conference Proceedings (*Vol. 1868, No. 1, 030010). AIP Publishing LLC.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

You can teach old dogs new clicks - the importance of teacher use of online content in a blended higher education course in Singapore

Christopher W. Harris[A] [A] *Director of Education, William Angliss Institute, Melbourne, Australia*

Hazel Tan[B] [B] *Lecturer, Monash University*

Keywords

Blended learning;
educational technology;
higher education;
pedagogy;
teaching and learning.

Article Info

Received 19 May 2019
Received in revised form 13 July 2020
Accepted 23 August 2020
Available online 26 August 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.9

Abstract

Lecturers and teachers teaching in blended learning courses have myriad teaching strategies to employ and various online and face-to-face content at their disposal. There is still much we can find out about what and when to blend online and face-to-face components. In this study, we investigated the effects of the lecturer's synchronous use of online content in the physical class on the subsequent asynchronous online participation and performance of higher education students. We found that the teacher's use of the online content in the physical class has a positive effect on students' subsequent online participation out-of-class. The results illustrate that intentional and integrated online and face-to-face components have positive impacts on students' engagement and online participation. The results have implications for teachers, course designers, learners, and researchers of higher education blended courses.

1. Introduction

Blended learning is coming into a new era of understanding as a pedagogical strategy in its own right with numerous research studies and their meta-analyses being conducted (Bernard et al., 2014; Means et al., 2013). With the increasing adoption of blended learning year-by-year this century (Bliuc et al., 2011; Levy et al., 2011; McFarland et al., 2019; Means et al., 2013) and the most recent proliferation owing to the global impacts of COVID-19 (Crawford et al., 2020) the need for empirical research on the teacher and learning outcomes, student engagement and media mix of blended learning courses is an essential emerging body of literature (Surjono et al., 2019; Tham & Tham, 2011).

Blended learning is broadly defined as the systematic combination of online (web-based, internet) and face-to-face teaching and learning (Garrison & Kanuka, 2004; Bonk & Graham, 2006). There have been discussions about the definition relating to aspects such as the percentage of time spent in each mode in order to constitute as "blended" (Bernard et al., 2014), instructional methods, and media used (Bonk et al., 2006). As such, the integration of the online and established classroom pedagogies necessarily distinguishes blended learning from other mixed teaching and learning methods that may have embraced a variety of offline resources and myriad instructional methods (Bliuc et al., 2007).

Generally, literature on both student participation in online and blended learning, like educational technology literature (Bulfin et al., 2014), is wide-ranging in focus and methodology, answering Garrison et al.'s (2004) call to "explore the impact of blended learning in achieving more meaningful learning experiences" (p. 104). Investigations into the impact and quality of blended learning typically involve evaluating students' performance outcomes and academic achievements (Bernard et al., 2014; Akçayır & Akçayır, 2018; Surjono et al., 2019), the level of collaboration and interaction between learners (Borokhovski et al., 2016), and students' learning experience and engagement (Bliuc et al., 2007). It is perhaps not surprising to find that pedagogically sound blended course designs and intentionally designed activities that promoted collaborations can have positive effects on the abovementioned student outcomes (Bernard et al., 2014; Bliuc et al., 2007; Borokhovski et al., 2016; Bower et al., 2015). However, researchers call for further research on finer grain details, particularly in regards to "what mixes of classroom instruction and online conditions produce both deep and meaningful learning and more satisfying educational experiences" (Bernard et al., 2014, p. 116).

The purpose of this study is to find out what impacts the online participation and results of students in a blended economics unit. The study compares two groups enrolled in a blended learning course with access to online materials. During the physical face-to-face classroom lesson, the lecturer incorporated online materials synchronously for the experimental group, but not for the control group, although both groups had access to online materials and a scripted instruction to use them out-of-class asynchronously. The central Research Questions (RQ's) are:

RQ1: In a face-to-face (F2F) blended class, what is the effect of the teachers' use of online content in a physical classroom, students' gender and students' age on students' use of online content after the physical class?

RQ2: In a face-to-face (F2F) blended class, what is the effect of the teachers' use of online content in a physical classroom, students' gender and students' age on students' performances?

In an earlier study, Harris and Fu (2018) found a positive correlation existed between teachers' use of online content in the physical class and students' ages and their self-stated on-task time online. That study was based on a survey of students (n = 1,047) and used a Pearson Chi-squared test of independence to show that associations between the variables existed, but could make no claim to causality. Furthermore, the use of self-stated time online and self-stated understanding as dependent variables were not validated against analytics from the Learning Management System (LMS). This current research study is a follow up, using LMS analytics about students' online participation and their post-examination results.

2. Literature review

Defining blended learning

This research defines blended learning as the systematic combination of online (web-based, internet) and face-to-face teaching and learning (Garrison et al., 2004). As such, the "co-presence of the internet and established classroom forms" (Friesen 2012, p. 1) and the careful planning of same necessarily distinguishes blended learning from other mixed teaching and learning methods that may have embraced a variety of offline resources and myriad pedagogies (Masie, cited in Bonk et al., 2012). Indeed, this paper and the literature maintain the narrower definition of blended as planned combinations of online, both synchronously and asynchronously, and face-to-face teaching and learning for the one unit or course (Bliuc et al., 2007; Garrison et al., 2004; Garrison & Vaughan, 2008).

Scholars first held up blended learning as a solution to 'nullifying the lacunae' (Pillay & James, 2013, p. 255) of its two constituent pedagogical approaches: purely online and purely face-to-face (Rogers, 2001). In the case of online, researchers find the form lacked variously interaction, teacher feedback and assurance (Brown, 1996; Masie, cited in Bonk et al., 2012). Conversely, scholars question the relevance, efficiency and effectiveness to meaningful learning experiences of the traditional institutional lecture (Garrison et al., 2004; Heterick & Twigg, 2003; Schweizer, 2004; Twigg, 2003). Against this backdrop, Friesen (2012, p.1) advocates the ever-increasing array of opportunities resulting from this evolution for blended learning designers as the "range of possibilities presented by digital media." Bonk et al. (2012) further asserts that these possibilities could increase access to, flexibility and cost-effectiveness of blended courses, claims well supported in the literature (Harris, 2016; Levyet al., 2011; Van de Bunt-Kokhuis & Weir,

2013). However, Bonk et al.'s claims to the improvements to pedagogy found in blended learning courses are contested, particularly when compared to purely face-to-face courses and are also under-researched in Asia (Ferguson & Tryjankowski, 2009; Shimizu et al., 2019; Tham et al., 2011).

The Singaporean context

The literature provides a substantial case for more testing of the application of blended learning within the Asian context along the lines of cultural preferences. In a study of Singaporean polytechnic students in a blended course argued, Fang argues that "culture at national, ethnic, and cyber levels might influence what they find useful, enjoyable and effective" (2007, p. 1), a claim that is acutely important to test as Singaporean national policy agendas direct institutions more and more into the blended and online learning space.

Since 2016, Singapore has moved unilaterally to a lifelong learning, skills-centred model, known as Skillsfuture, that is disrupting traditional temporal and sectorial models of delivery affecting all levels of public education from the Pre-Tertiary Institutes of Technical Education and Polytechnics to the under- and post-graduate preserves of the autonomous universities (Ong, 2016). The main drivers of this systemic change to Singapore education are, firstly, a declining number of new entrants to the workforce year-on-year, which is acute in 2020 with only 20,000 new local entrants (pre-COVID-19) arriving into the employment marketplace, compared to 90,000 in 2015 (Tay, 2015). Secondly, a more protectionist policy born out of the 2015 election, concurrently means less foreign labour is being imported. These two policies combined create a labour crunch, with worrying consequences for employers. Thirdly, and further exacerbating employers, the much-heralded academically-driven Singaporean education system has come under criticism for not providing skills need in a rapidly changing world (Tay, 2015). When combined, these drivers result in a Skillsfuture policy tying the two pertinent Ministries of Manpower and Education together to make learning lifelong and more open to all, but at the same time, "more modular, more flexible, more blended and online and with deeper ties to industry" (Chan, 2015), intended to free up students to work and workers to study.

The drivers for change not only prescribe but have driven growth in opportunities for online and blended modes of delivery to prosper (Chan, 2015; Harris et al., 2018; Harris, 2016; Ong, 2015;). Add to this the impact of the COVID-19 pandemic prevalent at the time of writing in which most institutions "currently teaching fully online, while others pursue blended" (Crawford et al., 2020, p. 8) and localised studies within the context are timely and warranted.

In the aforementioned study that underpins this research, Harris et al. (2018) found that associations exist between Singaporean teachers' use of online, students' ages, and students' self-stated understanding of Commerce units with online learning time. The researchers use a Pearson Chi-squared test of independence and establish associations between these variables, associations which give the impetus for this study, and more so because their test could not prove causality. A description of the pedagogical context for the blended course at the centre of both that survey and this experimental study is given in the Methodology section.

Student and teacher perspectives on blended learning

However, generally, literature on both student participation in online and blended learning is largely Western in context and, like educational technology literature more generally (Bulfin et al., 2014) is wide-ranging in focus and methodology, generally answering Garrison et al.'s (2004) call to "explore the impact of blended learning in achieving more meaningful learning experiences" (p. 104). Too often such achievements are too readily assumed in the marketing hype that surrounds educational technology (Harris, 2012; Selwyn, 2016), and researchers should do well to stay objective. Indeed, a second order meta-analysis found high quality, thorough research evaluating the efficacy of particular approaches of blended learning to be rare (Tamim et al., 2011). Abeysekera and Dawson (2015, p.12) went further to insist on an approach otherwise lacking:

> For individual university teachers to be confident in the flipped approach, and university decision-makers to support them, the following types of investigations may be necessary: Small-scale localised interventions, including experimental studies: what is the efficacy of the flipped classroom approach in this discipline, this classroom, with these students?

The literature demonstrates that such blended learning interventions and other forms of research on blended or flipped learning as those described have largely focused on the students' experience, demographics and motivations. Research concerning the age of students explores its effect on student self-reliance and persistence within blended or fully online courses (Harris et al., 2018; Hood, 2013, White & Selwyn, 2013; Xu & Jaggars, 2014, p. 647; López-Pérez et al., 2010) while other research looks at student intentions and motivations to use webinars in a blended learning course (Khechine et al., 2014). Similarly, in studies within the Singaporean context, the focus is on student participation, experience and outcomes rather than necessarily on that which the teacher does (Cheng, 2007; Latchem & Jung, 2009; Menkhoff et al., 2007, Tham et al., 2011).

Conversely, research focused on the teacher and blended learning has considered teachers' perceptions, beliefs, as well as broader institutional approaches to course design and research frameworks (Boelens et al., 2018; Bliuc et al., 2007; Garrison & Anderson, 2003; Jonassen et al., 1995; Meyer & Land, 2003). Teachers' beliefs have been found to be one factor upon which their teaching choices will be predicated (Garrison et al., 2003). Indeed, there can be a wide range of teachers' beliefs about blended learning and their teaching approaches in a blended learning environment. Boelens et al. (2018) interviewed 20 instructors in adult education about their beliefs and use of differentiated strategies in blended learning to meet the needs of a diverse group of learners.

They obtained a range of profiles from no additional support considered in blended learning arrangements, to completely redesigning and transforming blended learning arrangements to cater to students' needs. Both extremes require a participant learner who can transition from simply "assimilating information to constructing meaning and confirming understanding" independent of the instructor (Garrison et al., 2004, p. 98). As such, this echoes the prevailing Western view of the teacher's presence within blended learning courses echoes Garrison et al.'s (2004) view as one of the teacher as facilitator and guide.

However, just how or even if this "guide on the side" (Jonassen et al., 1995; King, 1993) notion is adapted to the "high teacher dependency" classrooms of Singapore (Tham et al., 2011) needs to be accounted for with more research. A study by Shimizu et al. (2019) concerning students in a blended problem-based-learning environment, for example, found that the pedagogy only amplified the dependency and that the Japanese students could be "very deferential towards tutors as authority figures; they fear confrontations with these authority figures and tend to be dependent" (p. 2). This resonates with Cheng's (1999) finding that the cultural preference of Asian students was to withhold their analysis of subject matter rather than exchanging views, an approach arguably not commensurate with a participant learner construct. Against these challenges, the problem remains then as to what role a teacher's activities should take to best enable student online participation in the Singaporean blended environment.

However, further complicating both teacher and student support for blended courses are criticisms of content and media choices within the environment not keeping up with technological advances. Studies from autonomous Singaporean universities concerned with course design, find the pedagogy of little concern to designers and an online learning experience that lacks interactivity, predicated on a perception of the online portion being supplementary rather than fully integrated into the course (Menkhoff et al., 2007; Teo & Gay, 2006; Tham et al., 2011; Thanasingam & Soong, 2007). This finding is supported by meta-analysis research on the use of mobile devices for teaching and learning, which found that mobile phones are "primarily used as a sort of reinforcement tool" (Sung et al., 2016, p. 253) rather than for more critical learning and reflection.

When technology and teacher are not fully integrated the premise on which blended is defined, that the whole course is greater than the sum of its pedagogical parts, is challenged. For example, case-study research found that these same supplementary and unintegrated approaches to online learning components of blended courses resembled a regression to the very issues with online learning, described here in the Introduction, which led to blended learning in the first place. The research instead argues that "designing for active learning" (Bower et al., 2015, p. 12) increased student satisfaction and learning outcomes. That research is also from Australian and New Zealand courses.

The problem to be addressed, therefore, concerns determining what teaching and learning activities affect the learning outcomes and participation of Singaporeans studying in blended learning courses. The significance of the research is that it enables comparisons with and challenges to the findings and assumptions present in Western literature on an Asian student population's participation and performance in blended learning courses.

3. Method

The problem identified was a lack of knowledge of the relationship between teaching and learning activities in a blended context in Singapore and the resulting online participation and performance of students. The literature further posited a gap in methodology calling for the use of quantitative methods in localised, experimental design settings that allowed for the researcher to utilize the latest techniques, such as learning analytics (Bulfin et al., 2014; Siemens, 2013).

Design

This study was conducted in a large private tertiary (post-secondary) higher education institute in Singapore, where students were undertaking a Diploma in Commerce (equivalent to AQF level 5 or UKQF4, first-year bachelor degree). Student participants in the research were enrolled in the blended Microeconomics unit, which was made up of 24 hours face-to-face lecturer contact time and between eight and 12 student self-paced learning hours online. An experimentally designed intervention was used to investigate the impact of the teacher's use (the intervention for the experimental blended group) or not (the control group) of the online resources in the physical class (synchronous) with the students' use outside it (asynchronous). Students' subsequent online participation was measured in clicks in the Learning Management System (LMS) Analytics (Bulfin et al., 2014) and their performance was measured via the pre (co-variable) and post-test quizzes (dependent variable) of the economics subject matter taught.

The particular intervention involved two randomly assigned groups of first semester student participating in a separate two-hour face-to-face (physical) class within the previously mentioned unit, covering the threshold concept supply and demand. All student participants were in their first semester of blended learning with no known prior blended learning experience. The lessons were designed differently, with the control group receiving a 'traditional' offline lesson in which the teacher did not use online resources, as opposed to the experimental group, who received a face-to-face lesson involving the teacher's use of online resources synchronous with students' over the LMS (see Table 1 below).

The two separate lesson plans below (see Table 1) were designed in collaboration with the experienced economics lecturer who taught both the Experimental and Control Groups. The lecturer was chosen for his knowledge of and experience with both the traditional and blended lesson plans and practices used in the respective formats of teaching. In terms of validating the content, a second faculty member with subject expertise in economics reviewed the lessons and approved the accuracy and parity of the content

and level of difficulty, and the alignment to the post-quiz. The presage or design aspect of the experimental group's lesson reflects the "importance of designing for active learning" (Bower et al., 2015, p. 12) with the videos, games and quiz chosen for their interactive properties. Likewise, the control group, while utilizing more traditional forms of teaching and learning activities, also had active learning in place to mitigate potential for threats to internal validity (Creswell, 2014).

Table 1: Comparative table of teaching & learning lesson plans and materials used for the control and experimental (intervention) groups for the microeconomics lecture

Lesson Stages	Control Group (No-use)	Experimental Group (Use)
1.Pre-Lesson: (Start of class) 15 min.	-Pre-Test on basic economics supply & demand knowledge -Administrative check for LMS log-in activation	-Pre-Test on basic economics supply & demand knowledge -Administrative check for LMS log-in activation
2.During: (Introduction) 20 min.	-Lectured introduction using standardized PowerPoints -Allow questions	-Online Video introduction using animated 5-min. video -Allow questions
3.During: (Development) 30 min.	-'Chalk and Talk' using Visualiser (Overhead Projector) for graphs -Supply & Demand Graph activity	-Drag and Drop online Supply & Demand graphs - Online Quiz on Supply & Demand activity
4.During: 25 min.	-Discuss answers for 3.	Discuss answers for 3.
5.Consolidation 15 min.	-Study guide (text) activity -Teacher read scripted reminder re: student using LMS materials after class*	-Study Guide (text) activity -Teacher read scripted reminder re: students using LMS materials after class*
6.Post-Lesson (next lesson, one week later)	-Post-Test on supply and demand	-Post-Test on supply and demand

*Students' online learning use is monitored from end of lesson to beginning of next lesson

The topic chosen for the lectures, supply and demand, was necessarily troublesome for the novice participants (Swoboda & Feiler, 2016), a threshold concept of microeconomics, or one that "represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress" (Meyer et al., 2003, p. 1). The topic was also directly linked to summative assessment later in the course (and after the study). This was to ensure the lesson is of importance so the potential for a lack of extrinsic motivation to learn the content, a potential threat to validity based on 'selection', can be somewhat mitigated (Creswell, 2014, p. 305). When a student is motivated by an external reward like assessment marks and grades, they are said to be extrinsically motivated (Abeysekera et al., 2015, Brown, 1996). At the same, the topic would be covered again formally in their credit-bearing unit, to allow for the scenario, mitigated by the check and balance of the expert third-party curriculum moderation but nevertheless possible, that one group might have a more effective lecture than the other.

The economics subject matter was equivalent and the post-tests identical to both groups to ensure there was no perception of one group to the next of advantage and, given both groups rightly had access to online materials, the instruction to use them after class was also identical and scripted by the researcher to control for any unintended coercion of student to the LMS, which might have weakened the case for the cause of teacher use in RQ1. This control also complied with the aforementioned ethical requirement for the researcher to ensure the equity of student experience and opportunity. Furthermore, these design factors diminished the threat to validity posed by any "diffusion of treatments", which is likewise controlled by keeping the groups separate (Creswell, 2014, p. 305).

Participants

Student participants were recruited via email and information session, following ethics procedures required for the research study. Sixty-eight undergraduate students initially consented to participate in the study, but eight did not answer the post-quiz and were released from the study. Students were randomly assigned into two face-to-face lessons, conducted by the same lecturer/teacher, and had access to the same online materials in the LMS. The control group received a traditional face-to-face lesson on an economics topic, Supply and Demand, whereas the experimental group experienced the teacher's synchronous use of online video, online learning activities, games and quizzes during the lesson.

Given the dictates of "true experimental design" (Creswell, 2014, p. 307), all consenting participants were assigned their university-style lecture and were asked to take notes and participate as usual. Therefore, the use of propensity score matching and other statistical techniques needed for comparing how an intervention impacts on groups with known between-group preexisting differences were not needed (Professor Helen Watt, personal communication, 27 March, 2017).

Data

The data collected using LMS analytics was interrogated along with the independent variable data on age and gender, using the Statistical Package for the Social Sciences (SPSS). For the impact of the multiple dependent variables and a concomitant co-variable, online participation and quiz results, non-parametric tests were applied because the data were not normally distributed.

Paired t tests were initially used to account for pre and post-test means and standard deviations. Different scores between pre-test (the co-variate) and post-test measures were standardised for use in further analysis on age and gender in SPSS. As presented in the Findings, the data was found to be abnormally distributed and non-linear, and so a non-parametric equivalent of the t-test, the Mann-Whitney U test was employed.

Given RQ1 and RQ2 both included a multiple number of independent (teacher's use of online resources, gender and age) and dependent variables (student's participation online in clicks and post-test results), the statistical procedure initially used was an F-test, specifically a Multivariate Analysis of Covariance or MANCOVA. According to Weinfurt (1995), a MANCOVA is "used to assess the statistical significance of the effect of 1 or more independent variables on a set of 2 or more dependent variables", controlling for a concomitant co-variable (p. 245). Therefore, this test addressed the

research questions pertinent to multiple variates in line with other like studies from within the education paradigm (Melendez & Melendez, 2010; Mathuranath et al., 2003; Fraenkel et al., 1993).

MANCOVA methods, held up by researchers as superior to other tests like mixed-mode ANOVAS because of the latter's vulnerability to sphericity violations from which MANCOVA are largely free are, nonetheless, based on their own set of mathematical assumptions which, when violated, may compromise the research. Two important assumptions, outlined below by O'Brien and Kaiser (1985), were considered and the ways and means of ensuring they were met were factored into this study:

Assumption 1. Homogeneity of variances and correlations – this could be an issue if sample sizes of the independent groups were unequal so the researcher endeavoured to arrive at parity or close to parity of the groups. Unfortunately, as the findings show, the main groups, originally with 34 consenting participants each, were only close to parity in the end (n = 28; n = 32), because of 8 students not attending the Post-Test, but homogeneity still ensued.

Assumption 2. Intersubject independence of observation of contrast variables – this was controlled for by the imposing of test conditions for the dependent variable, Post-Test results (to answer RQ2). However, as the earlier reference to t tests and the findings demonstrate, the requisite normally distributed data assumed for MANCOVA tests was not present and so the non-parametric equivalent, the Kruskall-Wallis test was employed (see Findings).

Limitations

The first limitation of this collection was that it did not account for the quality or depth of learning (Siemens, 2013) found in other research about, for example, time on content using video interactions (Kim et al., 2014) or discussion boards or blogs (Tang & Lam, 2014). This limitation was somewhat mitigated both by the use of post-test results as a proxy for student understanding and for the subsequent data analysis, as demonstrated in an earlier experimentally designed study on laptop multitasking in-class (Sana et al., 2013).

A second limitation was the sample size. The sample size reflected the difficulty in recruiting from a population of part-time students, largely working adults from which participant withdrawal (n=8) was due to work or personal commitments.

4. Findings

Summary of Statistics

For the purpose of analysis, subjects were grouped on the basis of gender (two groups), age (seven groups), and the use or non-use of the online learning materials in the classroom by the lecturer. Descriptive statistics in Table 2 show the means and standard deviations of these categories in terms of the number of clicks (a proxy for participation between the lecture investigated and the post-test) made in the online learning materials (addressing RQ1) and the means and standard deviation on the post-test (addressing RQ2). Table 2 also shows the summary of multivariate and other tests performed on the groups.

Table 2: Mean scores on pre-and post-test and number of clicks by categories

All Groups		Mean (SD)			
	n (M/F)	Age	Pre	Clicks	Post
Overall:	60 (26/33)	27.08 (1.22)	2.63 (1.22)	44.73 (20.88)	5.38 (2.21)
Gender:					
Male	26	27.31 (7.68)	2.69 (1.26)	39.04 (19.53)	6.23 (2.05)
Female	34	26.91 (4.80)	2.59 (1.21)	49.09 (21.98)	4.74 (2.15)
p		.818 [a]	.030 [b]	.001 [b]	.173 [b]
Age Groups:					
18-22	15	20.33 (1.23)	2.33 (1.05)	27.80 (7.27)	5.40 (1.77)
23-27	18	24.89 (2.06)	2.78 (1.31)	73.39 (21.83)	5.83 (2.43)
28-32	17	29.47 (1.86)	2.76 (1.15)	37.35 (16.41)	4.76 (2.46)
33-37	6	33.83 (1.17)	2.83 (1.72)	38.17 (12.76)	6.17 (1.84)
38-42	2	38.00 (0.00)	3.00 (1.41)	21.00 (8.70)	5.50 (2.12)
43-47	1	44.00	1.00	32.00	2.00
48-52	1	50.00	3.00	8.00	6.00
Use/Non-Use by Lecturer of Online Resources and Activities In-Class					
No Use	32 (13/18)	26.88 (5.80)	2.75 (1.14)	20.16 (25.46)	5.00 (2.19)
Use	28 (13/15)	27.08 (6.16)	2.50 (1.32)	72.82 (84.42)	5.82 (2.20)
p		.585 [c]	.322 [d]	.001 [d]	.162 [d]

Note: M/F, males/females; SD, standard deviation; [a]Independent Sample t-test; [b]Kolmogorov-Smirnov test for normality; [c]Wilks' Lambda three-factorial MANCOVA; [d]Kruskal-Wallis test.

The statistics in Table 2 above demonstrate the limitation of the population researched for multivariate analyses, even at a cursory glance. Of obvious concern in any test of normality are the number of outliers. Indeed, the final population (n = 60) is small for this type of analyses (Creswell, 2014, p. 145) and further complicated by wide and small distributions of sub-group numbers, in particular for age, which had seven groups (see Table 2). This was in a large part due to the timing of the Post-Test as necessarily one week after the lecture, meaning some participants (n=8) were absent for the test and survey and were thus deemed invalid, an unanticipated flaw from the research design not accounting for the part-time and working status of the subjects (See Conclusion). Nevertheless, the data was tested for assumptions of normality, linearity, and homogeneity.

Results of tests of assumption for multivariate analysis

For verifying normality, Komogorov-Smirnov's two-sample test was run on the dependent variables of clicks and post-test results as well as for the co-variable, the Pre-Test, collected and analysed to account for any prior learning and knowledge. Komlogorov-Smirnov's test was chosen for its

applicability to small data sets. The resulting significance scores (sig. <0.05) reflect data sets not normally distributed, and also reflects non-linearity, a finding confirmed by proofing of histograms and stem-and-leaf-plots of clicks and post-test results. However, the one exception is the relationship of significance between the intervention of the teacher using the online in class ("Use") and the post- test results as this is normal (p= 0.173). The pre-test shows both groups came in relatively normally distributed (p= 0.30 and p= 0.17) but the 'no use' against post-test results were not normally distributed and clicks have no significance regardless of the treatment; no case exists for normality and linearity across the data sets.

The final assumption for discriminant tests like MANCOVA and other multivariate procedures, especially vital when the design is unbalanced as is the case here, assumes that the individual group covariance matrices are equal or homogeneous across the different groups. Box's M test was performed across the 4 factorials and showed the covariance matrix of post-test scores and recorded clicks are equal across Gender, Age, Teacher Use/Non-Use, and the pre-test. As displayed in Table 3, the result shows homogeneity (p =0.09).

Table 3: Box's test of equality covariance matrices[a]

Box's M:	59.606
F:	1.826
df1:	24
df2:	1208.638
Sig.	.09

Note: [a]Design: Intercept + Teacher_Use + Gender * Age * PreTest

Results of MANCOVA tests

Homogeneity aside, the running of multivariate tests as expected showed no significance across factors using Wilks' Lambda (p = 0.585). An application of Pillais' Trace, usually reserved for larger samples, also expectedly revealed nothing of significance (p = 0.599). In simplest terms, it proves the inapplicability of the unbalanced data to MANCOVA tests.

The data reflected an almost bi-modal distribution, in particular for the Group in which the Teacher did not use the online materials in class ('No Use'). Whilst this failed any test of normality or linearity required for the intended MANCOVA analysis, the homogeneity warranted some investigation of the data using non-parametric tests. Therefore, rather than t-tests, which required the assumption of normal distributions, the Mann-Whitney U non-parametric test was applied.

Results of Non-Parametric Tests of Mean

Given the aims of the research were to investigate the effects of three factors on the dependent variables of clicks and post-test scores, Mann-Whitney U tests were run on each factor against each of these two variables and independent samples. As expected from earlier testing, and despite accounting for abnormal distributions, the findings were that no significant differences in the U rankings scores occurred when the effect of Age was tested against each of post-test and click scores. This was likewise the case when the factor of the teacher Use or No-Use of online materials in class was tested against post-test (despite a higher, if not significantly so, average mean on post-test for Use group, shown in Table 3) and pre-test results. However, clicks in the Use group were statistically significantly higher than clicks in the No-Use group (U = 233; p = 0.01) as shown below.

Table 4: Mann-Whitney U Test, effect of teacher use/non-use of online materials on post-test scores, clicks[a]

Chi-Square	1,957	10.312
df	1	1
Asympt. Sig. (2-tailed)	.162	.001

Note: [b]Grouping Variable: Use/Non-Use

This result confirmed the descriptive statistical findings (see Table 2), which showed significant differences in the means of clicks for Use and Non-Use groups, in particular for males, but multivariate analysis revealed insufficient normality of gender data to prove a multi-factor relationship between use, gender and test scores. This is despite higher amounts of average mean clicks and percentage improvement across scores for males and females in the treatment group, comparatively speaking. For the variable of Gender, no significant differences in the U rankings scores occurred when tested against click scores, although Post-Test Scores might survive a less stringent threshold than 0.05 (p = 0.09) and warranted exploration with a bigger sample (see Table 3).

Table 5: Kruskall-Wallis Test for effect of teacher use/non-use of online materials on post-test scores and clicks[b]

	Post-test	Clicks
Chi-Square	1,957	10.312
df	1	1
Asympt. Sig. (2-tailed)	.162	.001

Note: [b]Grouping Variable: Use/Non-Use

From the Kruskall-Wallis results above, p = 0.001, the Null Hypothesis could be rejected and there is a greater than chance probability of student clicks after class being related to whether or not the Teacher Used it in class. A further interrogation (Franke et al., 2011) of the Chi Square Score (Chi-Square/ n – 1; 10.312/ 59 = 0.17) revealed that 17% of the variability in rank scores for clicks was accounted for by Use or Non-use of the online materials by the lecturer in class. Outliers in the data set for both groups notwithstanding, the effect was clear, as Figure 1 shows, with the Median for clicks in the Use group in line with the upper range for Non-Use.

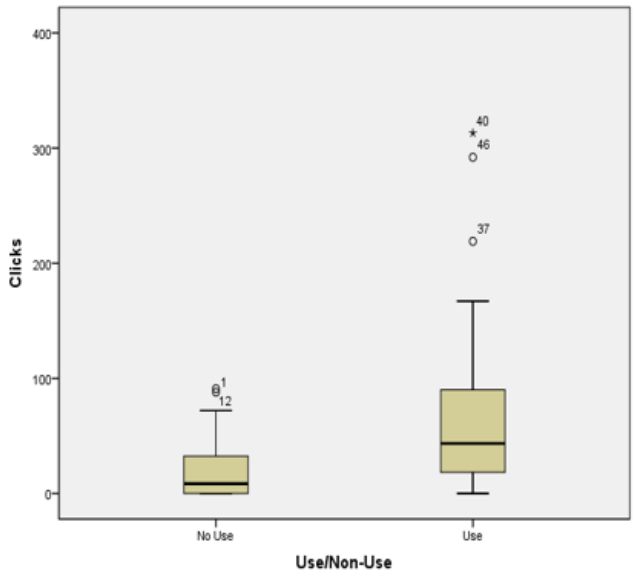


Figure 1: The effect of teacher use of online content in a face-to-face class on student online participation out-of-class

5. Discussion

As described under Method, the experiment took place in a natural setting, the lecture theatre, thus cannot lay claim to major contributions to learning theories or pedagogical precepts predicated as might larger and/or longitudinal studies. However, the research did heed the call to expand the methodological capacity of educational technology research with more localized, contextualized interventions (Bulfin et al., 2014). The research also answered Abeysekera et al.'s challenge of endeavouring to find the efficacy of blended learning for "this discipline (in this case economics), this classroom (higher education), with these students (part-time working Singaporean adults)" (2015, p. 12). In this way, the research made a contribution both to expanding the breadth of methodologies embraced within the broader discipline of educational technologies and within the context of part-time higher education students in Singapore, a group the Literature Review shows is increasingly enrolling in blended learning programs.

The specific aim of this experiment was to investigate the effects of the teacher's use of online learning materials on the subsequent out-of-class online participation, measured in clicks, and test scores of students enrolled in a blended learning course. Regarding RQ1, the research does find for an original discovery concerning the effect of the teacher's use or non-use of the online material in class (synchronous) on the student's subsequent use out-of-class (asynchronous). Indeed, the research lays some claim to corroborating a monkey-see-and-do-monkey-do response from students in terms of their out-of class online participation, which supports Bower et al.'s (2014) recommendation for curriculum designs incorporating active learning as crucial to blended learning efficacy. However, the effects of age and gender on learning activity were found to have little or no significance, but the data sample size was limiting here with disparate sizes among age categories. Indeed, the positive correlation between age and factors like persistence and self-reliance as found in literature (Khechine et al., 2014; Harris et al., 2018; Xu et al., 2014) would warrant further research with larger and more equally distributed samples.

While several studies (López-Pérezet et al., 2010; Swoboda et al., 2016), have found differences in the participation of blended students in comparison to students in face-to-face classes, the originality here is found in the investigation of the role the teacher's instructional choices play within blended-only courses. Indeed, while studies have supposed the importance of supportive (Goh & Scarri, 2016), active (Bower et al., 2014), and open-minded faculty within course designs (Harris, 2012), this study sought to compare the actual effect of a lecturer who used the online materials synchronously in class against the effect of the same lecturer when he/she did not use the online materials in class, but where both groups had equal access to online materials out of the physical class. The subsequent finding, when the data was tested non-parametrically to allow for inherent issues of non-linearity and abnormal distribution, was that the lecturer's use of the online in class impacted the students' participation outside of the physical class in a statistically significant way.

However, in terms of the latter variable, the effects of time spent online and the blended learning format, the findings cannot make claims to efficacy of the synchronous blended approach on test score performance, as set out in RQ2. This is despite (statistically insignificant) higher post-test average scores by 8% for an experimental group (M = 5.82, compared to the control group's M = 5.00, out of a possible score of 10) that came in despite comparatively lower pre-test score averages (respectively M = 2.50, M = 2.75, see Table 2).

To borrow from Abeysekera et al. (2015), the effect of the teacher's use in this class for this group of students should not be generalised, but should rather open up questions pertinent to the context. For example, consider the milieu around the role of teachers in Asian and blended learning classes. Whereas the finding of students following their teacher's lead, may be seen as further proof of the "high teacher dependency" of students asserted by Tham et al., (2012), it also may show how integration of online curriculum within the same physical class and away from its once "supplementary" role (Menkhoff et al., 2007; Teo & Gay, 2006; Thanasingam et al., 2007) only reinforces the position of the teacher as a figure of authority. With more research, this could inform change management (Bower et al., 2014) and other institution-wide practices for the introduction of technology into curriculum and learning spaces now increasingly a necessity (Crawford et al., 2020). For the purposes of this report, the principal finding is that the grouping of participant students into classes in which the teacher used or did not use the online curriculum in the class accounted for 17% of the variance of clicks by students out of class (Table 6). Moreover, this fact about participation along with the, albeit statistically insignificant, relatively greater improvements to average test score of both male and female students on the post-test in the class where the teacher used the online materials together offer a case for larger, longitudinal studies to see if these hitherto disparate

variables are significantly related within a synchronous blended learning design.

From a research design and participant perspective, the greatest challenge was in the recruitment of part-time working adult students to participate in a study which required them to be present in two consecutive lessons, the lecture class itself and the subsequent post-test class. Nevertheless, the significance of the results for RQ1 suggest a bigger sample size from across institutions is warranted.

6. Conclusion

The major finding in this study, that of students' online participation being dependent on whether or not the teacher uses the online content of the blended course in class ($p = 0.001$), is novel for the focus on a teacher's instructional choices of online learning within a blended-only course, but resonates with earlier studies that relate student participation in blended courses to the level of integration of the online and face-to-face components (Bower et al., 2014; Friesen, 2012; López-Pérez et al., 2010). Nevertheless, this was a 'local study' and so its implications are conclusive only for the context in which it was performed (Abeysekera et al., 2015; Bulfin et al., 2014). Indeed, it is argued that the most successful blended and other teaching and learning models are ones which best meet the challenges and requirements of a local setting (Holkner et al., 2008). Within those boundaries, it can be argued that teachers of economics with part-time cohorts in Singapore within a blended course design should consider the integration of online content synchronously in the physical class, rather than designating it supplementary as has been the Singaporean norm (Gay, 2006; Menkhoff et al., 2007; Sung et al., 2016; Tham et al., 2011; Thanasingam et al., 2007).

In conclusion, future research directions should include more of these localized, controlled, random experiments that consider the integration of the lecturer in blended learning designs as a counter-point to the many studies cited here that look at the integration of technology. Moreover, discoveries like the one in this study of the impact of the lecturer on the out-of-class participation of students, may have positive consequences for the uptake of and research into educational technologies among educators (Bulfin et al., 2014), now even more critical in a more socially and educationally distanced post-COVID-19 world of higher education (Crawford et al., 2020). The one challenge to mitigate in future studies is in the recruitment of part-time students, so future applications should increase the sample size by repeating the experiment through multiple cohorts over time.

By way of post-script, in summarizing their experimental research concerning laptop use in class, Sana et al. (2013) argue for the provision to lecturers of "resources to help them create enriching, informative and interactive classes" (p. 30). Of course, adoption should not be for its own sake, instead it should be with learning, pedagogy, and the dual academic missions of great teaching and research in mind. For it still remains to be disproven for blended as it does for traditional courses in Higher Education that while students are accountable for their own learning, "enthusiastic instructors can influence how students choose to direct their attention" (Sana et al. 2013, p. 30), in and out of the physical classroom.

7. References

Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research & Development, 34*(1), 1-14.

Akçayır, G., & Akçayır, M. (2018). The flipped classroom: A review of its advantages and challenges. *Computers & Education, 126*, 334-345.

Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. *Journal of Computers in Higher Education, 26*(1), 87-122. https://doi-org.ezproxy.lib.monash.edu.au/10.1007/s12528-013-9077-3

Bliuc, A. M., Ellis, R. A., Goodyear, P., & Piggott, L. (2011). A blended learning approach to teaching foreign policy: Student experiences of learning through face-to-face and online discussion and their relationship to academic performance. *Computers & Education, 56*(3), 856-864.

Bliuc, A. M., Goodyear, P., & Ellis, R. A. (2007). Research focus and methodological choices in studies into students' experiences of blended learning in higher education. *Internet and Higher Education, 10*(4), 231–244. doi:10.1016/j.iheduc.2007.08.001

Boelens, R., Voet, M. & De Wever. B. (2018). "The design of blended learning in response to student diversity in higher education: Instructors' views and use of differentiated instruction in blended learning." *Computers & Education, 120*, 197-212.

Bonk, C. J. (2009). *The world is open. How web technology is revolutionizing education*. San Francisco, CA: Jossey Bass.

Bonk, C. J., & Graham, C. R. (2012). *The handbook of blended learning: global perspectives, local designs*. John Wiley & Sons.

Borokhovski, E., Bernard, R. M., Tamim, R. M., Schmid, R. F., & Sokolovskaya, A. (2016). Technology-supported student interaction in post-secondary education: A meta-analysis of designed versus contextual treatments. *Computers & Education, 96*, 15-28. http://dx.doi.org/10.1016/j.compedu.2015.11.004

Bower, M., Dalgrano, B., Kennedy, G. E., Lee, M.J.W., & Kenney, J. (2015). Design and implementation factors in blended synchronous learning environments: Outcomes from a cross-case analysis. *Computers & Education, 86,* 1-17. http://dx.doi.org/10.1016/j.compedu.2015.03.006

Brown, K. M. (1996). The role of internal and external

factors in the discontinuation of off-campus students. *Distance education, 17*(1), 44-71. http://dx.doi.org/10.1080/0158791960170105

Bulfin, S. A., Henderson, M., Johnson, N. F. & Selwyn, N. (2014). Methodological capacity within the field of "educational technology" research: An initial investigation. *British Journal of Educational Technology, 45*(3) 403-414. doi: 10.1111/bjet.12145

Chan, L. F. (2015). *Higher education in Singapore: The road ahead*. Paper presented at the OECD-Singapore Higher Education Futures Conference. Singapore. https://govinsider.asia/innovation/4-ways-for-singapore-universities-to-prepare-for-skillsfuture/

Cheng K. M. (1999). Institutional collaboration in higher education: challenges of the information era". In Carr, R. (1999), *The asian distance learner* (pp.126-206). Hong Kong: Open University of Hong Kong Press.

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Burton, R., Magni, P., Lam, S. & Glowatz, M. (2020). COVID-19-19: 20 Countries' Higher Education Intra-Period Digital Pedagogy Responses. *Journal of Applied Teaching and Learning, 3*(1), 9-28.

Creswell, R. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson: Sydney, Australia.

EDUCAUSE. (2012). Seven things you should know about flipped learning. *EDUCAUSE* Seven things you should know series. https://net.educause.edu/ir/library/pdf/eli7081.pdf

Fang, L. (2007). "Perceiving the useful, enjoyable and effective: A case study of the e-learning experience of tertiary students in Singapore". *Educational Media International, 44*(3), 237-253.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (1993). *How to design and evaluate research in education* (Vol. 7). New York: McGraw-Hill.

Franke, T. M., Ho, T., & Christie, C. A. (2011). The chi-square test: often used and more often misinterpreted. *American Journal of Evaluation, 33*(3) 448-458. doi: 10.1177/1098214011426594

Ferguson, J., & Tryjankowski, A. (2009). Online versus face-to-face learning: Looking at modes of instruction in master's-level courses. *Journal of Further Higher Education, 33*(3) 219–228.

Friesen, N. (2012). "Defining blended learning." *Learning Spaces*. http://learningspaces.org/papers/Defining_Blended_Learning_NF.pdf

Garrison, D. R., & Anderson, T. (2003). *E-learning in the 21st century: A framework for research and practice*. London: Routledge/Falmer.

Garrison, R., & Kanuka, H. (2004). Blended learning: uncovering its transformative potential in higher education". *The Internet and Higher Education, 7*(2) 95–105. doi:10.1016/j.iheduc.2004.02.001

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. John Wiley & Sons.

Goh, E., & Scerri, M. (2016). "I study accounting because I have to": An exploratory study of hospitality students' attitudes toward accounting education. *Journal of Hospitality & Tourism Education, 28*(2), 85-94.

Harris, C. W. (2016) *Lifelong learning and earning: The changing landscape of higher education in Singapore*. Paper presented at the Council for Australasian Tourism and Hospitality Education (CAUTHE) conference, February 11, 2016, Wesley Centre Sydney, Australia. http://www.cauthe2016.net/

Harris, C. W. (2012). The uses of Facebook technologies in hospitality curriculum on an experiential learning platform for a new generation of students. *Asia Pacific Journal of Marketing and Logistics, 24*(5), 805-825. http://dx.doi.org/10.1108/13555851211278385

Harris, C. W. & Fu, S. (2018). The blend justifies the means: the relationships between lecturer use of online content in-class, student age, and student self-stated understanding, with students' use of online content out-of-class in a blended commerce course. *Journal of Applied Learning and Teaching 1*(1), 5-12.

Heterick, B., & Twigg, C. (2003). *The learning marketspace*. http://www.center.rpi.edu/LForum/LM/Feb03.html.

Holkner, B., Romeo, G., Henderson, M., Auld, G., Russell, G., Seah, W. T., & Fernando, A. (2008). 4 exemplar schools: Using innovative learning technologies. *In Australian Computers in Education Conference*.

Hood, M. (2013). Bricks or clicks? Predicting student intentions in a blended learning buffet. *Australasian Journal of Educational Technology, 29*(6), 762-776.

Jonassen, D., Davidson, M., Collins, M., Campbell, J., & Haag, B. B. (1995). Constructivism and computer-mediated communication in distance education. *American Journal of Distance Education, 9*(2), 7-26.

Khechine, H., Lakhal, S., Pascot, D., & Bytha, A. (2014). UTAUT model for blended learning: The role of gender and age in the intention to use webinars. *Interdisciplinary Journal of E-Learning and Learning Objects, 10*(1), 33-52.

Kim, J., Li, S. W., Cai, C. J., Gajos, K. Z., & Miller, R. C. (2014). *Leveraging video interaction data and content analysis to improve video learning*. In Proceedings of the CHI 2014 Learning Innovation at Scale workshop.

King, A. (1993). From sage on the stage to guide on the side. *College teaching, 41*(1), 30-35.

Latchem, C., & Jung, I. (2009). *Distance and blended learning in Asia.* Routledge.

Levy, R., Dickerson, C., & Teague, J. (2011). Developing blended learning resources and strategies to support academic reading: A student-centred approach. *Journal of Further and Higher Education, 35*(1), 89-106.

López-Pérez, M. V., Pérez-López, M. C., & Rodríguez-Ariza, L. (2010). Blended learning in higher education: Students' perceptions and their relation to outcomes. *Computers & Education, 56*(3), 818-826.

Mathuranath, P.S., George, A., Cherian, P.J., Alexander, A., Sarma, S.G. & Sarma, P.S. (2003). Effects of age, education and gender on verbal fluency. *Journal of Clinical and Experimental Neuropsychology 25*(8) 1057–1064.

Crawford, J., Hussar, B., Zhang, J.,Wang, X, Wang, K, Hein, S., Dilberti, M, Forrest Cataldi, E., Bullock Mann, F., Barmer, A. (2019) *The condition of education 2019 (NCES 2019–144).* U.S. Department of Education. National Center for Education Statistics, Washington, DC. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019144

Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record, 115*(3), 1-47.

Melendez, M. C. & Melendez, N. B. (2010). The influence of parental attachment on the college Adjustment of White, Black and Latina/Hispanic women: A cross-cultural investigation. *Journal of College Student Development, 51*(4), 419-435.

Menkhoff, T., Thang, T. Y., & Wong, Y.K. (2007). *Evaluating the blending of an e-learning course into a knowledge management course: A case study from the Singapore Management University (SMU)"*. Proceedings of the IADIS international conference e-Learning 2007, Lisbon, 6-8 July 2007. https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1644&context=lkcsb_research

Meyer, J., & Land, R. (2003). *Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines* (pp. 412-424). Edinburgh: University of Edinburgh.

O'Brien, R. G., & Kaiser, M. K. (1985). MANCOVA method for analyzing repeated measures designs: An extensive primer. *Psychological bulletin, 97*(2), 316.

Ong, Y. K. (2015). *Welcome address by the acting minister for education (higher education and skills).* Paper presented at the OECD-Singapore Higher Education Futures Conference, Singapore. https://www.mfa.gov.sg/content/mfa/overseasmission/geneva/press_statements_speeches/2015/201510/press_20151014.html

Pillay, S., & James, R. (2013). "The pains and gains of blended learning – social constructivist perspectives". *Eduation+Training, 56*(4). 254-270 http://dx.doi.org/10.1108/ET-11-2012-0118

Rogers, P. L., (2001) Traditions to transformations: The forced evolution of higher education. *Educational Technology Review, 9*(1). 47-60.

Sana, F., Weston, T., & Cepeda, N. J. (2013). Laptop multitasking hinders classroom learning for both users and nearby peers. *Computers & Education, 62*, 24-31.

Schweizer, H. (2004). "E-learning in business". *Journal of Management Education, 28*(6), 674-692.

Selwyn, N. (2016). Minding our language: Why education and technology is full of bullshit … and what might be done about it. *Learning, Media and Technology, 41*(3), 437-443. doi: 10.1080/17439884.2015.1012523

Shimizu, I., Nakazawa, H., Sato, Y., Wolfhagen, I. H., & Könings, K. D. (2019). Does blended problem-based learning make Asian medical students active learners?: A prospective comparative study. *BMC medical education, 19*(1), 147.

Siemens, G. (2013). Learning analytics: The emergence of a discipline. *American Behavioral Scientist, 57*(10), 1380-1400.

Singaporean Educational Landscape (2016) https://www.moe.gov.sg/docs/default-source/document/education/landscape/print/sg-education-landscape-print.pdf. Ministry of Education, Singapore

Sung, Y. T., Chang, K. E., & Liu, T. C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education, 94*, 252-275.

Swoboda, A., & Feiler, L. (2016). Measuring the effect of blended learning: Evidence from a selective liberal arts college. *The American Economic Review, 106*(5), 368-372.

Surjono, H. D., Muhtadi, A., & Trilisiana, N. (2019). *The effects of online activities on student learning outcomes in blended learning environment.* In Proceedings of the 2019 3rd International Conference on Education and Multimedia Technology (pp. 107-110).

Tamim, R. M., Bernard, R. M., Borokhovski, E., Abrami, P. C., & Schmid, R. F. (2011). What forty years of research says about the impact of technology on learning. *Review of Educational Research, 81*(1), 4–28.

Tang, E., & Lam, C. (2014). Building an effective online learning community (OLC) in blog-based teaching portfolios. *The Internet and Higher Education, 20*, 79-85.

Tay, V. (2015). *Jobs of the future economy.* Presented at the Singapore Association for Private Education, Education for the "New Economy" Conference, Singapore

Teo, C. B., & Gay, R. K. L. (2006). A knowledge-driven model to personalize e-learning. *Journal on Educational Resources in Computing, 6*(1), 1-15. doi: 10.1145/1217862.1217865

Tham, K. O., & Tham, C. K. (2011) Blended Learning – "Blended learning", A focus study on Asia". *International Journal of Computer Science Issues, 8*(2) 136-142.

Thanasingam, S. & Soong, S. K. (2007). *Interaction patterns and knowledge construction using synchronous discussion forums and video to develop oral skills*. http://www.ascilite.org.au/conferences/singapore07/procs/thanasingam.pdf.

Twigg, C. A. (2004). *Improving quality and reducing costs: Lessons learned from round III of the pew grant program in course redesign*. National Center for Academic Transformation. http://thencat.org/PCR/RdIIILessons.pdf

Van de Bunt-Kokhuis, S., & Weir, D. (2013). "Serving culturally diverse e-learners in business schools". *Multicultural Education and Technology Journal 7*(1), 17 – 45. http://dx.doi.org/10.1108/17504971311312609

Weinfurt, K. P. (1995). Multivariate analysis of variance. In Grimm, L. G., & Yarnold, P. R. (Ed). (1995). *Reading and understanding multivariate statistics* (pp. 245-276). Washington, DC, US: American Psychological Association.

White, P., & Selwyn, N. (2013). Moving on-line? An analysis of patterns of adult Internet use in the UK, 2002–2010. *Information, Communication & Society, 16*(1), 1-27.

World Economic Forum (2016) *The 10 countries best prepared for the new digital economy*. https://www.weforum.org/agenda/2016/07/countries-best-prepared-for-the-new-digital-economy/

Xu, D. & Jaggars, S. (2014). Performance gaps between online and face-to-face courses: differences across types of students and academic subject areas" *The Journal of Higher Education, 85*(5), 633-659. doi: 10.1353/jhe.2014.0028

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Diverse student bodies and diverging performance trajectories

Sina Erdal[A] [A] *Senior Teaching Fellow, Portsmouth Business School, University of Portsmouth*

Andrew Wood[B] [B] *Professor, Head of Accounting and Financial Management, Portsmouth Business School, University of Portsmouth*

Keywords

Academic performance;
international students;
performance trajectories;
prior educational experience;
threshold concepts.

Article Info

Received 28 December 2019
Received in revised form 2 August 2020
Accepted 12 August 2020
Available online 24 August 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.7

Abstract

Recent research suggests there is a divergence of performance between UK and Chinese students as they progress through their degree. The current study uses a large dataset that includes sufficient detail to enable us to categorise students according to their previous educational experience to test for differential progression trajectories across a broader range of categories. We find that students who progress with identical grades subsequently experience a systematic divergence of performance that depends on the subject they are studying and their previous educational experience. Not only are inferior performance trajectories not restricted to Chinese students, but for more quantitative courses the performance of Chinese students frequently progresses at a rate that is comparable or superior to UK and other international students. The results not only contribute to our understanding of student achievement, but they also have practical implications for student recruitment, curriculum design and student support.

Introduction

In an important recent study, Crawford and Wang (2015) compare the performance of UK and Chinese students as they progress through their Bachelor degree and find that Chinese students outperform their UK counterparts during the first year but significantly underperform during the second and third years. This finding poses a challenge to the University sector, not least because of its responsibility to the large number of Chinese students who come to the UK and other western countries to study for a degree. It also raises a question of whether this divergence of performance is unique to Chinese students or whether other easily categorised students also experience markedly different levels of improvement as they progress through their undergraduate studies.

Numerous studies have considered the determinants of degree performance but the idea of diverging performance amongst different groups of students as they progress through their degree has been little studied prior to Crawford and Wang (2015)[1]. The specific issue of diverging performance is important not only for providing a different dimension to considering performance per se and therefore improving our understanding of the determinants of degree performance, but also to help our understanding of the requirements and implications for student support that results from the increasing diversity of the student body that is evident in universities not just in the UK but globally, be it through internationalisation or widening participation.

The current study uses a relatively large dataset from a UK business school that includes sufficient detail to enable us to categorise individual students according to their previous educational experience and to test for differential progression trajectories. Our approach is designed to enable us to progress the work of Crawford and Wang by testing: a) whether there is predictable variation in the progression trajectories of different groupings of Chinese students according to their previous educational experiences; and b) whether other clearly defined groups of students experience different progression trajectories throughout their university studies. Our results demonstrate the importance of subject studied, with all overseas students studying courses based on predominantly discursive assessments experiencing inferior progression trajectories compared to British A-level students. Most strikingly, Chinese students progress at similar rates to that of non-Chinese students. The picture for quantitative courses is more complex with smaller differentials and some categories of overseas students achieving comparable performance trajectories to British A-level students.

Why specific groups of students experience diverging performance

A stylised view of the stages of a three year UK degree is that the first year is a comparatively gentle introduction to subject specific material allowing students, most of who will be living away from home for the first time, to adapt to independent living and learning. Provision is often tied to specific textbooks and the subject material covered during this period is usually quite general and will be accompanied by much of the taught study skills that are provided as part of the degree. As students progress from year to year the material covered becomes more specialised as it focuses on the subject of their major and as a result becomes increasingly challenging as it draws on recent research within the discipline requiring students to make greater use of a variety of specialist texts and academic journals as opposed to introductory textbooks. At the same time, assessments become less descriptive and more conceptually demanding; for students to succeed it is critical that they are able to absorb themselves in the language of their discipline and clearly express themselves when writing essays. In summary, success beyond the first year is contingent on their ability to adopt appropriate learning approaches: independent or autonomous learning associated with 'deep' rather than 'shallow' approaches to learning (Entwistle & McCune, 2004). It is the contention of this study that students' capacity to adapt depends to some extent on their previous educational experiences.

A natural framework for considering the determinants of progression trajectories is provided by the literature on threshold concepts. According to Meyer and Land (2003; 2005), threshold concepts are associated with different ways of thinking and understanding about the subject of study and can be viewed as 'conceptual gateways' through which students must pass in order to fully progress in their studies. The learning of threshold concepts is characterised as 'troublesome', giving rise to what Meyer and Land describe as states of liminality in which students struggle and even flounder. Students progress at different speeds and with different levels of success through these gateways.

Preparation for higher education

It has often been suggested that the Chinese education system has traditionally favoured what can be described as a surface approach to learning that is characterised by rote learning, usually within a classroom situation, and consequently does not prepare students for the type of independent learning that is required in British and other international higher education institutions. While this would help explain why performance deteriorates as Chinese students progress to higher levels of study, the depiction of Chinese students as surface learners is not uncontroversial. Indeed, it has been suggested that not only are many of the negative perceptions of Chinese students as passive, surface learners based on misplaced stereotypes but they also reflect the difficulties that Western teachers have with the different study approaches adopted by Chinese students (Mathias et al., 2013). Moreover, it has been argued that the Western view of the role that rote learning plays within a 'Chinese approach' to learning is partial and it is a mistake to see it as a negative (Tan, 2011; Tweed & Lehman, 2002). Furthermore, the tendency of Chinese students to exhibit study characteristics associated with surface learning is not incompatible with those same students adopting deep approaches to study (Sakurai et al., 2014).

1 One exception is the literature that evaluates the effect of work placements on degree performance by comparing the performance trajectories of students who take a placement with those who don't (see for example Mansfield 2011).

The question of preparedness for higher education can be posed for other clearly identifiable groups of students. Studies on the experience of UK students from lower socioeconomic backgrounds suggest that they are less prepared for making the transition to higher education, in particular they are less prepared for autonomous learning and dealing with what appears to be a less supportive teacher-student relationship, and they are often unsure of what is expected of them in assessments (see Thomas, 2011, for a survey). It is likely that these problems of adjustment are particularly acute for students entering higher education via the vocational route offered by Business and Technology Education Council (BTEC) qualifications which are usually associated with highly supportive routes to achievement.

Academic ability and language skills

Academic ability as measured by previous academic performance is likely to be a factor in determining differential trajectories through the stages of a degree since academically weaker students may perform well during the early stages when they are more likely to be working from single textbooks and benefitting from scaffolding that is likely to be in place, but as material becomes more conceptually challenging and the scaffolding removed, they face a greater risk of being left behind.

It has been suggested that the rapid growth in recruitment from China has been accompanied with a lowering of entry requirements which has resulted in greater diversity of both ability and commitment specifically of Chinese students (Lannelli & Huang, 2014). If true, this is a possible explanation, at least in part, for performance divergence. However, as with the other potential explanations, a decline in effective entry requirements is not likely to be unique to Chinese students. The growth in foundation colleges, whether aimed at home or overseas students, is likely to attract weaker students, as can the BTEC path into university. There is a substantial gap between the performance of BTEC and traditional entry students with Rouncefield-Swales (2014) reporting that 54.4% of BTEC students graduating in 2012/13 achieved a 'good degree' compared with 71.6% of traditional entry students (see also Shields & Masardo, 2015).

In addition to overall academic ability, the possession of specific skills can be crucial to success in higher education. In their series of papers on the subject of threshold concepts and troublesome knowledge, Meyer and Land (2003, 2005) and Land et al. (2005) highlight the importance of language and discourse.

> It is hard to imagine any shift in perspective that is not simultaneously accompanied by (or occasioned through) an extension of the student's use of language. Through this elaboration of discourse new thinking is brought into being, expressed, reflected up and communicated. This extension of language might be acquired, for example, from that in use within a specific discipline, language community or community of practice, or it might, of course, be self-generated. It might involve natural language, formal language or symbolic language (Meyer & Land, 2005).

It is easy to see that students who are studying in a second language may well be disadvantaged in this respect since it is not only harder for such students to detect subtle nuances and changing meanings to subject specific vocabulary, but it is harder still to successfully adopt that language and at the same time make the subjective changes and cognitive leaps necessary for the subject they are studying. However, this may vary according to subject and it is conceivable that some students who have weaker discursive language skills may have strong quantitative language skills and are therefore relatively strongly equipped to communicate the language of mathematical relationships, including probability and risk, which places them at an advantage at acquiring threshold concepts for more formalistic and technical subjects taught within a business school setting.

There is a large literature demonstrating that a workload that is perceived by the student to be highly demanding encourages the adoption of a surface approach (see Baeten et al., 2010 for a survey) from which it is a small step to suggest that students studying in a foreign language or a new environment are facing a demanding workload and are therefore more likely to adopt surface approaches to learning (Sakurai, 2009; Sakurai et al., 2014). This problem is most acute for students who are both adjusting to living and studying in a foreign language but are also academically weaker than their peers. An illustration of this is the anecdotal observance of overseas students with weak grades who adopt self-defeating strategic approaches to study by foregoing in-sessional English support so they can focus on the modules that directly count to their degree (see also Kingston & Forland, 2008).

Data and Methodology

In contrast to previous studies, rather than analysing absolute levels of performance we use a methodology that allows us to compare the performances stage by stage conditional on performance in the preceding stage. The starting point shall be two regressions, one with the year 2 grade as the dependent variable and the other the year 3 grade with the primary independent variable being the grade achieved in the previous year, years 1 and 2 respectively, with dummy variables identifying different sub-groups. Accordingly, our results allow us to compare the second and third year performance of students conditional on the first and second year performances respectively.

$$Year2grade = \beta_0 + \beta_1 Year1grade + \beta_2\ China + dummies\ for\ other\ subgroups + controls$$

$$Year3grade = \beta_0 + \beta_1 Year2grade + \beta_2\ China + dummies\ for\ other\ subgroups + controls$$

Reliable data has been obtained for all students first registered to study for a degree at Essex Business School between the years 2009/10 through to 2012/13. From this data we obtain two samples which we label Second Year and Third Year. Because we are interested in evaluating how students' performance improves from one year to the next, for inclusion in our samples we require grades from both the year in question and the preceding year. Consequently, the

Second Year sample includes all students who undertook the second year of a Bachelor's degree between 2010/11 and 2013/14 for whom we have a grade for both their first and second years. The Third Year sample includes all students who undertook the third year of a Bachelor's degree between the years 2011/1 and 2013/14 for whom we have grades for both their second and third years, but not necessarily for their first year[2]. The size of the Second Year sample is 1018 while the size of the Third Year sample is 1030.

The samples described in Table 1 can be considered along two dimensions, both of which have a bearing on student performance and progression. The first dimension relates to the subject of study. Essex Business School is distinctive for having a large finance faculty and a management faculty that is dominated by academics working within a Critical Management Studies tradition[3]. Consequently we can differentiate between on the one hand BSc Finance, BSc Banking and Finance, and BSc Accounting and Finance, each of which contain a fairly high level of quantitative modules, and on the other BSc Business Management and BSc Management and Marketing which after the first year are entirely discursive. We exclude joint degrees which include a combination of both quantitative and discursive modules.

Table 1: Sample characteristics, by subject

	Second year		Third year	
	Quantitative courses	Discursive courses	Quantitative courses	Discursive courses
A-level	134	123	95	93
BTEC	62	62	50	50
Europe	163	154	121	123
Overseas A-level	71	22	53	12
Chinese	29	5	22	2
Non-Chinese	42	17	31	10
Foundation	95	41	62	29
Chinese	64	21	43	12
Non-Chinese	31	20	19	17
Diploma	0	0	132	24
Chinese	0	0	114	15
Non-Chinese	0	0	18	9
2+2	0	0	92	32
Other overseas	65	26	45	17
Chinese	33	6	23	4
Non-Chinese	32	20	22	13
total	590	428	650	380

Note: Quantitative courses are BSc Finance, BSc Banking and Finance, BSc Accounting and Finance, BSc Accounting, BSc Accounting with Economics. Discursive courses are BSc Management, BSc Management and Marketing. Joint degrees between finance and management or accounting and management are excluded from the sub-samples as are the relatively small management science degrees.

The second dimension regards the origin of the student and their previous educational experience. The ability of students to adapt to a university education will depend on their educational capital which is related not just to their country of origin but also the type of pre-university education. When categorising students, we are guided by whether the disaggregation produces clearly identifiable groupings which are of sufficient size to make analysis meaningful. In some cases the resulting sub-groups will be fairly heterogeneous, but it is important that students within the sub-groups share some common features which are likely to influence subsequent performance and the ability to adapt to higher education in the UK.

A simple distinction can be made for UK students between those who previously studied A-levels, which have traditionally been seen as academic qualifications that prepare students for progressing to university, as opposed to BTEC courses which are vocational in nature and can be generalised as having more supportive structures with a greater reliance on coursework rather than exams. Accordingly we use the label 'A-level' in Table 1 to refer to UK students who enter university having previously studied A-levels or similar academically oriented courses such as the International Baccalaureate, while 'BTEC' refers to UK students whose previous qualification was a BTEC, or some combination of BTEC and A-levels where the A-level grades were not sufficient on their own to warrant entry, or a similar non-mainstream qualification.

Overseas students can be usefully categorised in a number of ways. A large number of overseas students in our sample studied British A-levels, usually but not necessarily in the UK, prior to entry to university. On the one hand, this suggests a familiarity with the English language and British educational system which should be of benefit to them and suggest less of a tendency towards a latent performance gap, but on the other hand a close inspection of the A-levels taken by these students reveal they are often concentrated on highly technical subjects which require less discursive skills. A-level subjects chosen by overseas students commonly include: Mathematics, Further Mathematics, Chemistry, and, perhaps most strikingly, they also often include a language A-level for their first language; it is common to find Chinese students with Chinese A-levels and Russian students with Russian A-levels, both usually with A grades.

Another large sub-group consists of overseas students whose previous qualification was a UK based foundation programme. Such programmes are common throughout the UK and include those run by independent colleges as well as by universities. Students who enter via this route have the advantage of gaining familiarity with the UK system and adapting to life in the UK prior to entry to the first year of a university course. However, a common reason for why they have studied a foundation course is that their school leaving qualifications were not sufficient to warrant direct entry to university[4].

There remain two other distinct routes to a business school degree, both offering direct entry to the second year. As with foundation courses, many universities run diplomas that are designed for international students to study the

2 The third year sample includes students who enter directly into our second year, usually from diploma programmes or via 2+2 link agreements. These categories of students are considered separately in some of the analysis below.
3 This excludes a Management Science group which is based at a separate campus.
4 This is a complex issue since for students from some countries, including China, the high school leaving certificate is not regarded as sufficient for entry to a British university and a further year of study is required with foundation courses being one option, particularly for students from affluent families.

equivalent of the first year of a business school alongside English for Academic Purposes. These diplomas recruit students who have not obtained sufficient achievement in either their academic or English studies or both. In contrast, a fairly large number of students come via institutional agreements as part of what has been labelled 2+2 programmes. Students coming via this route have studied two years at an overseas institution, usually in China, on a course that was specifically designed to prepare the student for entry into the second year of a UK business school. On the one hand, good 2+2 programmes have been carefully designed to prepare students for study in the UK, on the other the students forego the comparatively gentle subject level and study skills preparations essential for independent learning along with the gradual acclimatising experienced by Freshers.

This leaves two categories that are more loosely defined: Europe and Other Overseas. Students from Europe (EU and non-EU) are bunched together since although they tend to be more familiar with English language and culture, there is no obvious way to further differentiate between them because no single country or group of countries dominates. Similarly, the category Other Overseas includes all non-European students who are not included in any other category but have the common characteristic of not having previously studied in the UK.

Relation between the years

Scatter plots of the current grade against the previous year's grade are presented in Figures 1 and 2. There is a clear positive relationship with the exception of outliers located in the south-west quadrant of the graph where some students have progressed and have subsequently experienced a collapse in their performance. The accommodation of outliers within regression analyses is a well-known problem since on the one hand outliers can be considered as containing important information about extreme outcomes which we should take care not to lose, but on the other hand outliers can exert a disproportionate impact on the estimators. One approach is to accommodate the outliers by adopting a log-transformation which would help to achieve a fit that goes some way to capturing the effect of the outliers but in our case this would come at the cost of forcing a non-linear relationship through the entire sample.

A visual inspection of the outliers indicates that most of those students who perform very poorly in a given year usually progressed to that year with low or moderately low grades, hence their position in the south-west quadrant of Figures 1 and 2. A closer inspection of details of individual cases shows that students with very low grades have usually partially completed their studies, with their year grade consisting of marks from some term-time assessments combined with zero grades for end of year exams. Such a profile indicates the student has effectively disengaged before they completed the year with the cause of that disengagement usually being non-academic in nature. In view of this the results presented in this paper are based on a sample that excludes outliers defined as students who achieve less than 30 during the year in question. The

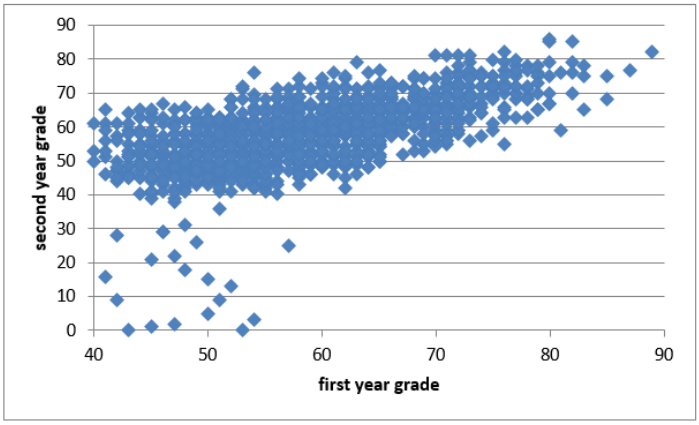


Figure 1: The relationship between second and first year grades

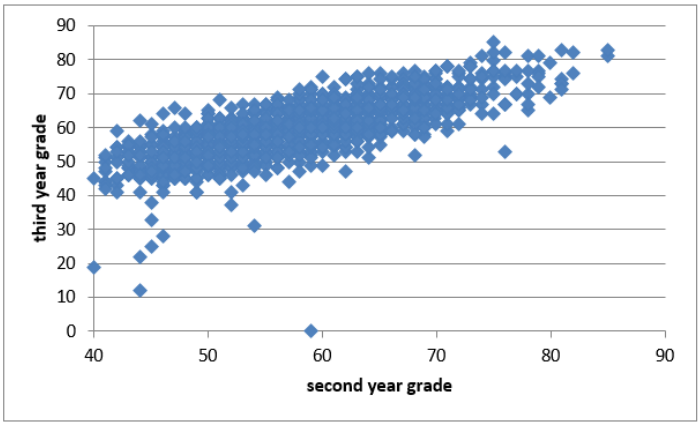


Figure 2: The relationship between third and second year grades

number excluded by this rule is 16 from the second year sample and 5 from the third year sample, 1.6% and 0.5% of the respective samples. In unreported results we conduct the same estimations using the entire sample; in all cases the results are qualitatively unchanged.

Results

Our initial regression results reported in Table 2 uses very broad categories of students that enable a simple comparison of the trajectories Chinese students with others large categories. The base is all UK students and three dummy variables are defined for all students from Europe, Chinese students, and all other overseas students[5]. While these are clearly defined groupings, they are nevertheless fairly heterogeneous and represent a starting point for our analysis. Our data covers four cohorts in the case of the Second Year sample and three in the case of the Third Year sample which for ease of exposition and to improve the power of the hypotheses tests we combine in the same regression. In unreported results, separate regressions for each cohort produced qualitatively similar results. There is,

5 In this paper we follow the convention within UK HE of referring to overseas as non-European with one important distinction; our definition of Europe is based on geographical boundaries rather than political. It is consequently larger than the EU with the largest difference due to the inclusion of Norwegian students as European rather than Overseas.

nevertheless, a cohort effect which is adequately accounted for with the inclusion of cohort dummy variables.

Table 2: Regression results, aggregate data

	Discursive		Quantitative	
	Second year	Third year	Second year	Third year
First year grade	0.514***		0.874***	
	(0.03)		(0.03)	
Second year grade		0.821***		0.726***
		(0.04)		(0.02)
Europe	-3.411***	-1.069*	-0.763	1.601**
	(0.58)	(0.59)	(0.65)	(0.63)
Chinese	-6.961***	-2.383***	-0.087	-1.433***
	(1.02)	(0.78)	(0.71)	(0.52)
Other overseas	-5.564***	-2.408***	-2.678***	-1.717**
	(0.79)	(0.81)	(0.72)	(0.67)
Female	2.186***	0.622	-0.119	1.201***
	(0.52)	(0.50)	(0.51)	(0.41)
2011 dummy	0.043		4.958***	
	(0.77)		(0.75)	
2012 dummy	-0.666	2.194***	-0.757	-0.521
	(0.78)	(0.63)	(0.76)	(0.49)
2013 dummy	3.015***	2.690***	2.878***	0.992*
	(0.80)	(0.65)	(0.73)	(0.51)
Intercept	28.780***	12.707***	4.376**	17.381***
	(1.84)	(2.35)	(1.86)	(1.34)
t-stat china – other OS	1.21	-0.03	-3.21***	-0.47
Observations	421	378	581	647
R^2	0.530	0.644	0.646	0.686
adj R^2	0.521	0.637	0.641	0.682

Notes: Standard errors in parentheses.
* significant at 10%; ** significant at 5%; *** significant at 1%

Our primary focus is on the coefficients for the dummy variables which represent the difference in grade achieved by the respective sub-sample relative to a UK student conditional on the grade achieved during the previous year. The results show that a divergence of performance is not exclusive to Chinese students and the magnitude of the divergence depends on the subject studied. The size of the performance divergence is meaningful, especially for discursive subjects, and is most pronounced in the second year. On average, Chinese students underperform UK students on discursive courses by -6.96 marks during the second year conditional on their first year grade with non-Chinese overseas students underperforming by -5.56 marks, both of these differentials are statistically significant. This conditional performance divergence reduces in the third year to -2.38 and -2.41 marks respectively for Chinese and non-Chinese overseas students, but remains statistically significant. For both second and third year performance, the differences in performance divergence experienced by Chinese and non-Chinese overseas students are not statistically significant. Performance divergence for European students studying discursive courses is also significant but is not so pronounced, with a differential of -3.41 during the second year and -1.07 in the third year, with the latter only significant at the 10% level.

The picture is qualitatively and quantitatively different for performances on quantitative courses. The conditional performance of Chinese students is no different to UK students during the second year but they experience a significant performance divergence of -1.43 in the third year. By contrast, non-Chinese overseas students experience a significant performance divergence in both the second and third years of -2.68 and -1.72 respectively, with the second year performance divergence also being significantly different to that experienced by Chinese students. Finally, the conditional performance of European students is not significantly different from UK students in the second year and is significantly positive in the third year indicating that conditional on their second year grade, European students outperformed UK students by an average of 1.60 marks during the final year of the degree.

Further disaggregation

To further examine the relationship between previous educational experience and performance divergence for the regressions reported in Table 3 we use dummy variables that correspond to the categories described above and listed in Table 1. Using the base as UK students who entered university with A-levels, we have a further seven categories of students for whom we could envisage different rates of progression. Of those seven, one, 2+2 students, includes exclusively Chinese students, while four others, overseas students with A-levels, foundation students, diploma students, and other overseas students, include both Chinese and other overseas students. To test whether performance divergence is most acute for, or even unique to, Chinese students we also interact these dummy variables with a dummy variable signifying whether the student is Chinese. For example, a significant coefficient for foundation indicates performance divergence for students who entered via a foundation course while a significant coefficient for foundation×Chinese indicates an additional performance divergence for Chinese students who came onto the degree via a foundation course. This distinction is made for all categories with the exception of overseas A-level and other overseas studying discursive courses due to the small number of Chinese students in these categories (see Table 1).

The coefficients for each sub-category are predominantly negative, confirming that UK A-level students represent a useful base for comparative purposes. On the whole, the conditional performance of BTEC students was comparable to the base of A-level students with the exception of the second year of management courses for which there is a significant divergence of -2.08 marks. There is a more pronounced gap for European students, again restricted to those students studying management courses, with the conditional performance being -4.08 marks below the base for the second year and -1.45 in the third year.

The results for non-European overseas students are in many ways more interesting, both because of the magnitudes of the coefficients but also because of the patterns that are evident. Broadly speaking, overseas students tend to experience a lower conditional performance with the size of the decline greater for discursive management courses as opposed to more quantitative accounting and/or finance courses, and the bulk of the divergence takes place during the second year. Where there is a difference between Chinese and non-Chinese students, Chinese students tend to have a smaller performance divergence than their fellow non-Chinese students.

Table 3: Regression results, disaggregated data

	Discursive		Quantitative	
	Second year	Third year	Second year	Third year
First year grade	0.514***		0.876***	
	(0.03)		(0.03)	
Second year grade		0.814***		0.722***
		(0.04)		(0.02)
BTEC	-2.077**	-1.098	0.528	-1.375
	(0.83)	(0.85)	(0.93)	(0.89)
Europe	-4.079***	-1.451**	-0.568	1.136
	(0.63)	(0.66)	(0.70)	(0.69)
Overseas A-level	-7.721***	-3.618**	-2.551**	-1.554
	(1.20)	(1.47)	(1.05)	(1.04)
Overseas A-level×Chinese			3.769**	1.090
			(1.46)	(1.40)
Foundation	-6.773***	-3.470***	-0.925	-3.863***
	(1.24)	(1.29)	(1.19)	(1.26)
Foundation×Chinese	-0.214	-0.513	-0.838	0.883
	(1.63)	(1.77)	(1.30)	(1.38)
Other overseas	-5.706***	-1.129	-3.964***	-2.679**
	(1.13)	(1.26)	(1.16)	(1.19)
Other overseas ×Chinese			6.663***	1.468
			(1.47)	(1.52)
Diploma		-4.516***		-0.950
		(1.66)		(1.29)
Diploma×Chinese		2.691		-0.818
		(1.98)		(1.27)
2+2		-2.693**		-2.108***
		(1.05)		(0.74)
Female	2.111***	0.549	-0.275	1.136***
	(0.52)	(0.51)	(0.51)	(0.41)
2011 dummy	0.236		4.836***	
	(0.77)		(0.75)	
2012 dummy	-0.394	2.381***	-0.940	-0.428
	(0.78)	(0.63)	(0.76)	(0.50)
2013 dummy	3.077***	2.796***	2.755***	1.042**
	(0.80)	(0.66)	(0.73)	(0.51)
Intercept	29.381***	13.430***	4.277**	18.075***
	(1.88)	(2.42)	(1.91)	(1.43)
Observations	421	378	581	647
R^2	0.538	0.651	0.657	0.691
adj R^2	0.526	0.638	0.649	0.683

Notes: Standard errors in parentheses.
* significant at 10%; ** significant at 5%; *** significant at 1%

One of the most striking results from Table 3 relates to the performance of overseas students who studied A-levels. A performance gap develops for these students during the second year, with coefficients of -2.55 for students studying quantitative courses and -7.72 for students studying discursive courses. The gap continues into the final year for students on discursive courses whose grades are on average 3.62 points lower than UK A-level students conditional on their second year grade. For overseas A-level students studying quantitative courses, the performance gap is only evident for non-Chinese students since there is a positive coefficient of 3.77 for Chinese students which offsets the negative coefficient for all students indicating that whereas the performance of non-Chinese students in this category dropped during the second year relative to their first year results, the results for Chinese students in the same category did not drop. Indeed, there is no performance gap in either the second or third year for Chinese students who studied A-levels. These results can be understood when it is recalled that the typical profile of an overseas student who took A-levels usually achieved very good A-level grades for highly quantitative subjects so they are well equipped to adapt to quantitative major, but they dramatically underperform when they major in discursive subjects.

Students from foundation programmes find the transition to higher levels of study challenging for discursive courses, with a conditional performance gap of -6.77 for second year and -3.48 for third year, but a significant gap of -3.86 only appearing in the Third Year for students studying quantitative courses. There is no significant difference between Chinese and non-Chinese students who entered university via a foundation course.

Chinese 2+2 students who enter directly into the second year of a course underperform during the third year relative to the second year irrespective of the subject they are studying, by -2.11 for quantitative, and -2.70 for discursive courses. The other group of students who enter direct into the second year are those who previously studied for a diploma. These students only experience a conditional underperformance if they are studying discursive courses and the underperformance is more pronounced for non-Chinese students relative to Chinese for which there is a large differential of +2.69 which is nevertheless insignificant.

The final category, other overseas, relates to overseas students who enter the first year of the degree without having previously studied in the UK. Perhaps surprisingly although the progression trajectories of these students tend to diverge below that of the base, the divergence for those students studying discursive topics is not as great as that experienced by overseas A-level or foundation students. Most strikingly, the trajectory of Chinese students in this category who are studying quantitative courses keeps up with, if not exceeds, that of UK A-level students.

Cumulative progression trajectories

In Table 4 we present the cumulative results for each category of student by combining the second and third year divergence coefficients as reported in table 3. Presenting the results in this format has the advantage of allowing for the fact that students may progress at different rates across the three years. Attention should be focused on the top five rows since these students have progressed across three years, the inclusion of diploma and 2+2 students in rows six and seven is for completeness.

Table 4: cumulative progression trajectories

	Discursive courses		Quantitative courses	
	non-Chinese	Chinese	non-Chinese	Chinese
BTEC	-3.175		-0.847	
Europe	-5.530		0.568	
Overseas A-level	-11.339		-4.105	0.751
Foundation	-10.243	-10.97	-4.788	-4.743
Other overseas	-6.835		-6.643	1.488
Diploma	-4.516	-1.825	-0.950	-1.768
2+2		-2.693		-2.108

The most interesting results from Table 4 relate to the categories for overseas students: foundation, overseas A-level and other overseas. The relative progression of non-Chinese students within these categories is similar within each subject. For quantitative courses, the range within which conditional grades diverge from the base lies between -4.11 and -6.64. There is a greater range of results for discursive courses with the results lying between -6.84 and 11.34. This confirms the importance of subject studied in determining progression trajectories.

Conclusions

In this paper we have compared the performance trajectories of different groups of students in order to test whether previous educational experience can explain diverging performances. We find that students who complete the first year of their programme with identical grades will subsequently experience a systematic divergence of performance that depends on the subject they are studying and their previous educational experience. For discursive courses, all groups of students, including UK students who entered university with BTEC qualifications, experience a performance trajectory that falls short of that achieved by UK students who entered with A-levels. This divergence is most pronounced for overseas students for whom there is a cumulative shortfall during the second and third years of their degree of up to -11 marks.

The picture is somewhat different for quantitative courses for which there are more modest differences in performance trajectories and the lower trajectories are only experienced by some overseas students. Most strikingly, Chinese students either experience trajectories that are not significantly different to non-Chinese students within the same category or are markedly better. Indeed, the cumulative trajectories of Chinese students who either entered the first year of a quantitative degree directly from a Chinese institution or having passed A-levels are little different or even superior to the baseline trajectory of British students who previously studied A-levels.

While some of the categories used in the study are fairly heterogeneous, categories such as BTEC and foundation are relatively homogeneous with students sharing similar educational experiences and being admitted on the same entry requirement irrespective of whether they are studying for a quantitative or discursive degree. It is therefore instructive to compare the results for these groups. British students who previously studied BTEC progress at approximately the same rate as British students who previously studied A-levels if they choose quantitative courses but their progression diverges by a cumulative average of -3.18 if they study discursive courses. By contrast, overseas students who entered university after taking a UK-based foundation course experienced a divergence of performance irrespective of whether they studied for a quantitative or a discursive course, but the divergence for the latter was on average twice that of the former.

We suggest that differing progression trajectories can be viewed within a threshold concept framework which highlights the discursive nature, broadly defined, of transformative concepts. Although this is not a fully formed position and requires further research, the importance of subject specific language skills in determining progression trajectories is evident in our results. We suggest that if the subject threshold concepts need to be articulated within a sophisticated discursive vocabulary then this poses a particular challenge to students for whom English is not their first language. However, if threshold concepts are at least in part articulated by a mathematical or statistical language then overseas students are less likely to see a lower progression trajectory. For this reason, the finding that Chinese students within the other overseas category who enter the first year of a UK quantitative degree direct from a Chinese institution tend to progress at the same rate as UK A-level students should not be a surprise because the technical skills of these students tend to be of a high standard. Similarly, the typical profile of a Chinese student who has studied A-levels in the UK is that they achieved very high grades in quantitative and technical A-levels which indicate that they are prepared for higher education so long as they choose quantitative majors. By contrast, the profile of Chinese students who register for foundation courses based in the UK tends to be weaker in comparison to A-levels, so foundation students struggle to make the same advances during their degree.

In addition to contributing to our understanding of student performance, the results have policy implications. For recruitment and curriculum design, it is important that overseas students sign up for degrees that enable them to flourish. It is usually assumed that this comes about through a self-selection process as students choose courses on subjects they are interested in and have skills to match but this is often not the case for business degrees where students often choose a degree at a business school because it is believed to be a way in to a career rather than due to an interest in the subject. As a consequence, students are less likely to consider the suitability of courses which can be problematic given the variety of ways in which business is approached within universities, ranging from degrees in finance or management science which require skillsets that are not dissimilar to those required by an economics degree, through to degrees designed from a critical management perspective which, although multi-disciplinary, tend to be quants-free zones.

The second area for policy prescription relates to the targeting of support. By focusing on trajectories we have shown how early promise is not always fulfilled and that overseas students tend to struggle to progress at the same rate as many UK students, particularly if there is a high discursive component to the degree. This demonstrates that it is not enough to focus the provision of study skills support during the first year and there is a continuing if changing need for targeted support through the second and third years.

References

Baeten, M., Kyndt, E., Struyven, K., & Dochy, F. (2010). Using student-centred learning environments to stimulate deep approaches to learning: Factors encouraging or discouraging their effectiveness. *Educational Research Review, 5*(3), 243-260.

Crawford, I., & Wang, Z. (2015). The impact of individual factors on the academic attainment of Chinese and UK students in higher education. *Studies in Higher Education, 40*(5), 902-920.

Entwistle, N., & McCune, V. (2004). The conceptual bases of study strategy inventories. *Educational Psychology Review, 16*(4), 325-345.

Iannelli, C., & Huang, J. (2014). Trends in participation and attainment of Chinese students in UK higher education. *Studies in Higher Education, 39*(5), 805-822.

Kingston, E., & Forland, H. (2008). Bridging the gap in expectations between international students and academic staff. *Journal of Studies in International Education, 12*(2), 204-221.

Land, R., Cousin, G., Meyer, J. H., & Davies, P. (2005). Threshold concepts and troublesome knowledge (3): implications for course design and evaluation. *Improving student learning diversity and inclusivity, 4*, 53-64.

Mansfield, R. (2011). The effect of placement experience upon final-year results for surveying degree programmes. *Studies in Higher Education, 36*(8), 939-952.

Mathias, J., Bruce, M., & Newton, D. P. (2013). Challenging the Western stereotype: Do Chinese international foundation students learn by rote?. *Research in Post-Compulsory Education, 18*(3), 221-238.

Meyer, J. H. F. & Land, R. (2003). Threshold concepts and troublesome knowledge: linkages to ways of thinking and practising within the disciplines. *Enhancing Teaching-Learning Environments in Undergraduate Courses,* Occasional Report 4, May 2003.

Meyer, J. H. F. & Land, R. (2005). Threshold concepts and troublesome knowledge (2): epistemological considerations and a conceptual framework for teaching and learning. *Higher Education, 49*(3), 373-388.

Rouncefield-Swales, A. (2014). *Vocational progression to selecting universities: comparisons and trends 2010-2013*. Western Vocational Progression Consortium.

Sakurai, Y. (2009). Academic experiences in a Cross-National tertiary program: Language immersion amid the Sciences. *International Journal of Teaching and Learning in Higher Education 21*(2), 239-247

Sakurai, Y., Pyhältö, K., & Lindblom-Ylänne, S. (2014). Are Chinese university students more likely to exhibit a Surface approach to learning than other international students in Finland?. *Journal of Research in International Education, 13*(2), 135-148.

Shields, R., & Masardo, A. (2015). *Changing patterns in vocational entry qualifications, student support and outcomes in undergraduate degree programmes*. Higher Education Academy.

Tan, P-L. (2011). Towards a Culturally Sensitive and Deeper Understanding of "Rote Learning" and Memorisation of Adult Learners, *Journal of Studies in International Education 15*(2), 124-145.

Thomas, L. (2011). Do pre-entry interventions such as 'Aimhigher' impact on student retention and success? A review of the literature. *Higher Education Quarterly, 65*(3), 230-250.

Tweed, R. G., & Lehman, D. R. (2002). Learning considered within a cultural context: Confucian and Socratic approaches. *American Psychologist, 57*(2), 89-99.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

A Conceptual Review of Demerit Points as Punishment and Social Necessity

Ian A. Van Deventer[A] [A] *Assistant Professor, School of Business, Spalding University*

Keywords

Demerit;
distract;
electronics;
learning;
motivation;
punishment.

Article Info

Received 31 May 2020
Received in revised form 31 July 2020
Accepted 18 August 2020
Available online 24 August 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.8

Abstract

Research suggests that students are aware of how much time they spend using electronics for non-academic activities during class. Many students believe they are multitasking when they engage in distracted behavior in the classroom. To make matters worse, many educators have become complacent and ignore or tolerate the use of electronics because they have no way to effectively solve the problem. Studies show that the use of electronics, such as a laptop computer or a smartphone, can distract as many as six other people seated near that student. Students engaged in distracting behavior negatively impact the learning and teaching of course content for themselves and others around them. The problem has impacted all levels of education from grade school to college. Studies of motivation theory have provided significant evidence that students are motivated by educators who exercise strong classroom-management skills. A demerit system in which points are lost will significantly reduce unwanted student behavior in the classroom, specifically the use of electronic devices for non-academic activities, resulting in increased achievement as measured by the final exam. This solution can also be generalized to any classroom setting where students earn points.

1. Introduction

It is easy to wax nostalgic about a time when cultural norms required students to pay attention in the classroom. Since the proliferation of mobile devices, such as smart phones, laptop computers, and tablets, it has gotten easier for students of all ages to become distracted in the classroom and more difficult for educators to cope with the disruptions to learning and teaching (Ravizza et al, 2014; Attia et al., 2017; Frisby et al., 2018).

The general problem is that some students do not want to be in the classroom. This reality causes them to become bored and easily distracted by the electronic devices they brought to class (Glass & Kang, 2018; Jacobsen & Forste, 2011; Ravizza et al., 2014; Ravizza et al., 2016; Risko et al., 2013; Sana et al., 2013). Some educators have become complacent with the problem and have accepted the fact that some students will use electronics to their own detriment. Research has shown that students who bring electronics to class distract their neighbors as well (Sana et al., 2013). This is how the seemingly harmless use of electronics can become disruptive to learning and teaching in the classroom. As many as 2 to 6 students in view of their multitasking peer can be affected by one person's use of an electronic device in the classroom (Sana et al., 2013), but students expect the educator to take charge when the class is being disrupted (Al Qahtani, 2016).

The specific problem is that educators do not know how to properly motivate a diverse group of students with different backgrounds, personalities, and interests. Kraushaar and Novak (2010) reported that students spend approximately 42% of class time using electronics for activities that were not related to the course. A practical solution is needed that is easy to implement, will motivate all students in grade school through college, takes no time away from classroom instruction, and takes advantage of inherent motivating factors.

Most educators would agree that it is the teacher's responsibility to create a positive classroom environment (Monroe, 2009; Williams & Williams, 2011; Yilmaz et al., 2017), but this is a difficult task. To be successful, educators must enforce rules, procedures, and even consequences when rules and procedures are not followed (Al Qahtani, 2016). I propose that using a demerit system as punishment will deter the non-academic use of electronics in the classroom and improve academic achievement as measured by quizzes and exams. Like the problem, the solution is generalizable to any classroom setting where students earn points.

2. Literature

Electronics as Distractions

There is a significant amount of evidence indicating that the use of electronics in the classroom is a problem for many educators. In 2011, Jacobsen and Forste conducted a study in the United States using time-diary and internet-survey data from 1 026 first-year students to explore the use of various types of electronic media and first-semester grades. The majority of students, 62%, self-reported using electronic media while in class, studying, or doing homework. In 2012, Junco conducted an internet survey in which he examined the relationship between multitasking and academic performance using a sample of 1,774 university students in the United States. A significant number of students, 69%, 28%, and 21%, self-reported texting, using social media and e-mail, and browsing the internet, respectively. In 2014, Ravizza et al. surveyed 170 undergraduate students in an introductory psychology course in the United States to examine the use of electronic devices to access the internet during class. The authors noted that all students, regardless of intellectual ability, demonstrated that they could not effectively multitask with electronic devices during class. Furthermore, all three studies provided evidence that using the internet for non-academic activities during class was detrimental to student achievement.

The use of electronics in classrooms has been studied as recently as 2017 by Carter, Greenberg, and Walker and in 2019 by Glass and Kang. The researchers studied the effect of laptops, tablets, and cell phones on quizzes and exams. Both studies were conducted in the United States and proved that the use of electronics for non-academic activities in the classroom reduced student learning. Interestingly, Carter et al. (2017) found no benefit from using computers in the classroom for academic purposes. Even the permitted use of electronics for academic activities was not beneficial to learning and teaching of course content. Glass and Kang (2019) found that performance on immediate quizzes was not affected, but unit exam and final exam scores were negatively affected by electronic distractions. Though short-term memory did not appear to be affected, long-term memory was negatively affected. These studies are significant because they indicate that the use of electronics in class is a persistent problem with no effective solution.

Students may not realize or even care that their self-destructive behavior affects others. Sana et al. (2013) conducted experiments in simulated classrooms with 77 undergraduate students at a large university in Canada to determine the effects of in-class laptop use on student learning. The authors reported that multitasking with laptops posed a significant distraction to users and fellow students and negatively impacted the learning of course content. Ravizza, Uitvlugt, and Fenn (2016) conducted a study with 507 university students in the United States and found that students spent an average of 37 minutes out of 1 hour and 50 minutes of class time engaged with social media, reading email, shopping, watching videos, chatting, reading news, and playing games. If half of students were actively engaged in these non-academic activities during class, the other half was likely distracted by them as well. This paints a bleak picture of the amount of learning and teaching that is actually taking place when electronics are present. All educators should be disturbed by the results of these studies.

Beland and Murphy (2016) studied technology distractions in primary and compulsory schools in England. Al Qahtani (2016) explored distracting behavior, including the use of technology, in university courses in Saudi Arabia. Attia et al. (2017) investigated technology as a distraction in

university courses in Saudi Arabia. Sun and Shek (2012) examined disruptive student behavior, including the use of cell phones, in Hong Kong junior secondary school classrooms. Neiterman and Zaza (2019) studied technology disruptions in university classrooms in Canada. Seemiller (2017) explored digital distractions among university students in the United Sates. Mandah (2019) investigated distracting behavior, including the use of cell phones, in secondary schools in Nigeria. Jacob, Adelaiye, and Bijik (2018) examined technology distractions among university students in Nigeria. Goundar (2014) studied technology distractions among university students in New Zealand. These studies serve to highlight the fact that students of all ages and education levels are using electronics in the classroom for non-academic purposes. These studies also indicate that this is at least a multi-national problem if not a global one.

In an attempt to solve the problem with the use of electronics in the classroom, Rekart (2011) wrote an opinion article in which he stated what we already knew: students who engaged in distracting behavior while in the classroom, studying, or doing homework impeded learning and academic achievement. To address the problem, Rekart (2011) recommended educators use frequent quizzes and tests, asserting testing enhances learning. The is known as the testing effect, which utilizes repeated recall to help strengthen long-term memory (Van Deventer, 2015). Students learn course material better if they are forced to recall it on frequent quizzes and exams (Van Deventer, 2015). However, for students to benefit from the testing effect, they need to be paying attention (Glass & Kang, 2019). The use of a demerit system would motivate students to disengage with electronics and force them to engage with the course material instead.

Classroom Management and the Learning Environment

Williams and Williams (2011) conducted a review of literature related to motivation and identified five key components: student, teacher, content, method, and environment. According to them, teachers were essential classroom managers responsible for a motivating learning environment. Yilmaz, Sahin, and Turgut (2017) analyzed academic articles published in the years 2000-2017 and identified classroom management and teaching methods as the most important factors affecting student motivation, stating that its most important purpose was to prevent the interruption of the learning and teaching process. It is no surprise to educators that classroom management is important; yet, the disruptive influence of electronics persists in the classrooms of most educators. Classrooms in which students are allowed to use or get away with using disruptive electronics are not being managed effectively. These articles drive home the point that educators cannot afford to be complacent and must find a way to effectively eliminate the unwanted use of electronics in the classroom.

Al Qahtani (2016) distributed a questionnaire to 190 undergraduate students studying educational policies, psychology, special education, and Islamic studies at King Saud University. The purpose of the study was to identify undesirable student behaviors and discipline strategies. The researcher identified cheating, rude manners, cell-phone use, side talking, and arriving late as the most undesirable behaviors from the student perspective. This study is significant because it provides evidence that students want strict rules and consequences, which are viewed as a crucial part of the educational process. Al Qahtani (2016) and Yilmaz et al. (2017) also asserted that effective classroom management remained a major challenge for educators. Students rightfully count on educators to solve classroom problems. A demerit system is punitive, but students expect punishment when rules are broken (Al Qahtani, 2016). As educators, we should not be afraid to give students what they rightfully expect from us.

Reward and Punishment as Motivation

Motivating factors such as reward and punishment were studied as early as 1898 and 1911 by Thorndike and studied again by Skinner in 1963, Tversky and Kahneman in 1986, Davison in 1991, Gray et al. in 1991, Ehrlich in 1996, and Hackenberg in 2009. It is well established in the literature that both reward and punishment are critical influencers of behavior. Thorndike (1927) was the first to report that reward increased wanted behavior and that punishment decreased unwanted behavior. The phenomena were studied later by Sidman (1962), Herrnstein and Hineline (1966), Schuster and Rachlin (1968), and Villiers (1980). In 2016, Kubanek, Snyder, and Abrams conducted a study with 88 undergraduate students from Washington University to conclusively determine whether reward and punishment were distinct factors in guiding behavior. Like their predecessors, the researchers determined that punishment was needed to decrease unwanted behavior and reward was needed to increase desired behavior.

McClurg and Morris (2014) conducted a series of surveys in which they sought to determine what factors motivated students to do well in class and which reward methods were preferred by students. They asked 143 undergraduate students to rank their preferences in a list of 12 possible incentives related to classroom performance. The results of the surveys indicated that students are motivated by grades and would prefer to have extra credit points added to their final grade. This study is significant because it demonstrates the use of a reward to encourage studying for exams, but a reward does not eliminate unwanted behavior such as the use of electronics for non-academic activities in the classroom. A demerit system in which students lose points is needed to deter students from breaking classroom rules. A demerit system capitalizes on what students care about most, their grades.

These studies are significant because they demonstrate that rewards cannot be used to deter unwanted behavior. Rules prohibiting the use of electronics for non-academic purposes should be clearly communicated to students at the beginning of the term, but consequences are needed to ensure that disruptions to the classroom environment are minimized. Punishment in the form of a demerit system would be more effective than a reward system if you are trying to eliminate an undesirable behavior such as using

electronics and causing distractions in the classroom.

Demerit Points as Motivation

As early as 1979, researchers like Kahneman and Tversky argued that the threat of a loss had more influence on behavior than a potential gain of the same magnitude. This phenomenon was also observed by Thaler in 1985; Kahneman, Knetsch, and Thaler in 1990; Hardie, Johnson, and Fader in 1993; and Novemsky and Kahneman in 2005. In a study conducted by McGraw, Larsen, and Kahneman (2010), 45 to 84 undergraduate students participated in three different tests where they were asked to imagine a game in which they had a 50% chance to win $200 and a 50% chance to lose $200. Participants indicated that the potential loss was felt more intensely than the potential gain.

Educators at all levels (grade school through college) can take advantage of the asymmetry to reduce or even eliminate unwanted behavior in the classroom. Using demerit points to decrease unwanted behavior would likely be more successful than a reward system because students would feel the loss of points for unwanted behavior more intensely than they would feel a gain of points for a desired behavior (McGraw et al., 2010). The researchers cautioned that there were some studies that showed no asymmetry in the intensity of feelings for reward and punishment (Mellers et al., 1997; Mellers, Schwartz, & Ritov, 1999), but there is overwhelming evidence that the use of punishment, such as a demerit-point system, is effective at reducing unwanted student behavior (Kahneman & Tversky, 1979; Thaler, 1985; Kahneman et al., 1990; Hardie et al., 1993; Novemsky & Kahneman, 2005; McGraw et al., 2010).

In another study conducted by Zainal and Salleh (2007) in Selangor, Malaysia, the researchers used a mixed-methods approach in which they surveyed 354 students and 100 teachers and interviewed 20 teachers directly involved in the use of a demerit system to evaluate the effectiveness of penalty points at decreasing vandalism. Students and teachers reported a significant decrease in the amount of vandalism that took place in the schools as a result of using penalty points as a deterrence. This study proves that a demerit system can be used to enforce all classroom rules and can eliminate a wide range of behaviors.

Embarrassment as Motivation

Punishment is a naturally evolved tool used to influence behavior (Thorndike, 1898, 1911; Skinner, 1962; Tversky & Kahneman, 1986; Davison, 1991; Ehrlich, 1996; Keltner & Anderson, 2000; Hakenberg, 2009; Feinberg et al., 2012; Krettenauer et al., 2014; Kubanek et at., 2015); but it is often avoided because punishment can also cause embarrassment. Researchers have demonstrated that embarrassment is a natural emotion that serves a necessary social function, including the development of a healthy conscience (Krettenauer et al., 2014), comradery, and trust (Keltner & Anderson, 2000; Feinberg et al., 2012).

Ausubel established embarrassment as a component of harmonious social relations as early as 1955. Embarrassment as a factor in social interactions was studied again in 1967 by Goffman. Later researchers like Scheff (1988), Kochanska (1993), and Keltner, Young, and Buswell (1997) determined that embarrassment plays a critical role in social relations like teasing and punishment to motivate moral behavior, conformity, and the development of a moral conscience. This brief history is evidence that embarrassment as punishment is necessary for students to develop healthy relationships with their peers and should not be avoided by educators.

Al Qahtani (2016), Williams and Williams (2011), and Yilmaz el al. (2017) identified classroom management as a key factor in student motivation. The researchers also insisted that, as part of maintaining a positive classroom environment, educators should be careful not to embarrass students. Like many of today's educators and parents, they believed embarrassment should be avoided but they were not aware of the emotion's vital role in social and moral development. Without some embarrassment, it is not possible to provide students with a positive learning environment. The embarrassment that accompanies discipline is necessary for changing behavior and developing harmonious social relations (Ausubel, 1955; Goffman, 1967; Scheff , 1988; Kochanska, 1993; Keltner & Buswell, 1997; Keltner, Young, & Buswell, 1997).

In another study, Keltner and Anderson (2000) conducted a review of literature related to the social consequences of embarrassment. Feinberg, Willer, and Keltner (2012) conducted five empirical tests of embarrassment as a social function in which they asked undergraduate students of a psychology or sociology course to complete questionnaires or to rate videos of others detailing an embarrassing moment. Researchers for both studies found that embarrassment served an appeasement function, allowing for people to be forgiven or even liked and trusted after social transgressions. Though punishment could be embarrassing for students, embarrassment as a consequence of unwanted behavior should not be avoided by educators. Embarrassment is an important component of social interactions.

Krettenauer et al. (2014) conducted a longitudinal study in which they investigated anticipated moral emotions and decision-making of 1,258 Swiss adolescents between the ages of 15 and 21. The researchers used a semi-structured interview procedure to assess anticipated moral emotions and decision-making and found that positive feelings after a moral transgression decreased over time, whereas positive feelings after a moral decision increased. As children age, moral emotions, such as embarrassment, shame, and guilt, continue to develop (Krettenauer et al., 2014). The researchers concluded that experiencing moral emotions is important for the development of everyday moral behavior.

It is evident that a significant number of students use electronics (laptops, tablets, smart phones, etc.) to entertain themselves (texting, using social media, surfing the internet, watching videos, online shopping, etc.) in the classroom. Stopping this behavior is essential to effective classroom management. The literature supports the use of a demerit system in which students experience the loss of points as a consequence of their disruptive behavior. Demerit points

make a practical and effective disciplinary tool for enforcing classroom rules and policies intended to provide all students with a positive classroom environment in which they can learn without disruption.

3. Theoretical Framework

The psychology of a demerit system is complex because it is comprised of several interrelated concepts: behavior, motivation, and prospect theory. Under behavior theory, educators use external mechanisms to solicit a change in classroom behavior (Zimmerman, 1995). This means using conditioning to achieve a desired behavior. Conditioning for a desired behavior can be accomplished by providing a motivation.

Motivation theory has two basic elements: appetitive and aversive (Gray, 1981, as cited in Potts, 2011). Appetitive motivation involves the use of a reward to cue desired behavior (Potts, 2011). Aversive motivation refers to the use of punishment to deter unwanted behavior (Potts, 2011). Most educators favor a reward system to motivate good behavior. By rewarding students for good behavior, you encourage only good students to continue the behavior leading to more rewards (Zimmerman, 1995). Unfortunately, uninterested students will forgo the reward and continue the unwanted behavior.

Prospect theory, which compares the effect of a potential gain to a potential loss, suggests that people are risk averse (McGraw et al., 2010). Educators can capitalize on this idea by implementing a demerit system in which students lose points for engaging in unwanted behavior. Well-performing students will naturally comply and low-performing students will stop causing distractions with their electronics to avoid losing their hard-earned points.

4. Methodology

This study was conducted using a systematic literature review. The specific steps included formulating the research question, problems statement, and hypotheses. A thorough literature search was conducted and articles relevant to classroom management, electronic distractions, motivation theory, behavior theory, and gaming theory were reviewed. The quality of the articles was assessed primarily by determining whether they were timely or could provide historical perspective. Information from the articles was then summarized, analyzed, and synthesized in the form of an annotated bibliography. The last step in the systematic process was to write the article using information from the annotated bibliography. Information was obtained throughout the systematic process as it became available during a continuous search for literature related to the paper.

5. Application

Effective classroom management involves creating a positive environment where students can learn without distractions (Monroe, 2009; Williams & Williams, 2011; Yilmaz et al., 2017). Creating a positive classroom free from the disruptive influence of electronic devices is not easy because it requires educators to enforce rules and procedures (Al Qahtani, 2016).

A demerit system will motivate a diverse group of students with different backgrounds, personalities, and interests. A demerit system is easy to implement, takes no time away from classroom instruction, takes advantage of an inherent desire to avoid a loss, and helps students develop a healthy moral compass. The use of demerit points as punishment is a practical way to deter the use of electronics in the classroom for non-academic activities and it should result in improved achievement.

It is simply a matter of time before some students become restless and use a laptop, tablet, or smart phone to entertain themselves in class by texting, using social media, surfing the internet, watching videos, and shopping online (Jacobsen & Forste, 2011; Junco, 2012; Ravizza et al., 2016). These activities not only affect the users of the devices, they distract the students within view of them. Research shows that these distractions negatively impact exam scores for both the users and fellow students (Sana et al., 2013). Sana et al., (2013) reminds us that students who use electronics for non-academic activities in class made an individual choice to disrupt their own learning, but it is disrespectful to disrupt the learning of others. It is the responsibility of the educator to manage the classroom and ensure that all students have a positive environment in which they can learn (Monroe, 2009; Williams & Williams, 2011; Yilmaz et al., 2017). The only way to ensure that all students have a positive learning environment is to enforce classroom rules and policies (Al Qahtani, 2016) and a demerit system is an effective way to do that.

6. Recommendations

The best way to test a demerit system is to use two groups of participants, consisting of a control group and a treatment group. This could be accomplished by using two or more sections of the same course and designating one or more sections as the control group and the other sections as the treatment group. All sections should be taught by the same instructor, preferably the researcher, to maintain consistency in teaching method used across the groups. The researcher would implement the demerit system in the treatment group but not in the control group. There should be no demerit system for the control group. Student achievement could be measured using the mean percentage for correct answers on the pre-test and final exam.

Participants could be drawn from a target population consisting of adults 18 years of age and older studying at the university. The target population could consist of students taking the course to satisfy a requirement of their degree program, to fulfill an elective requirement, or to satisfy an interest. Participants should be allowed to enroll in any section of the course that was available to them at the time of registration. The researcher could randomly designate one section as the control group and the other section as

the treatment group. Students should not be made aware of the study or the treatment until the start of the course.

A pre-test should be used to ensure that all participants started the course with roughly the same knowledge of the course topic. The final exam should be identical to the pre-test to ensure the same knowledge is tested at the end of the course and to measure how much students learned. The mean percentage for correct answers on the final exam could be used as the measure of student achievement (Van Deventer, 2015). Care should be taken to make sure the exam questions are a fair representation of the material taught in the course. It is recommended that the researcher use multiple-choice questions to measure achievement because they are easy to grade.

In other studies, the independent variable was the demerit or reward system, which was also the treatment administered to the students (Zainal & Salleh, 2007; Kubanek et al., 2015). The independent variable should have a nominal value of 0, indicating the student received no treatment, or a 1, indicating the student received the experimental treatment in the form of demerit points. Participants in the control group would not receive the experimental treatment, so they will all be coded with 0 for the independent variable. Participants in the treatment group would receive the experimental treatment, so they will all be coded with 1 for the independent variable. Coding the independent variable this way will allow the researcher to predict a positive correlation between the demerit system and final-exam scores.

In other studies, student achievement was the dependent variable and was measured using a final exam (Kubanek et al., 2015; Van Deventer, 2015). The dependent variable should have a ratio value and would depend on the outcome of the final exam for each student. The researcher is comparing the mean percentage for correct answers for the treatment group to the control group.

The descriptive statistics, which are the mean scores for correct answers from the control group and the treatment group can be compared to see which group performed better. I recommend that the data be further analyzed using a regression model. The regression model can be represented as Y = AX + B, where Y is the dependent variable, A is the coefficient, X is the independent variable, and B is the intercept. The formula can also be expressed with the known variables as Achievement = Prediction (Demerit System) + Minimal Student Grade. The highlighted area is the anticipated effect the demerit system (coded as 0 or 1) will have on final exam scores. The intercept, which is the minimal student grade, is calculated by the regression formula based on the values entered for the various participants. I anticipate the effect of the demerit system will be positive, so achievement should increase significantly. If the p-value is less than .10, it means the effect of the demerit system on student grades is strong. The lower the p-value, the stronger the effect is.

To control for confounding variables such as GPA, major, gender, and race, the general ordinary least squares (OLS) formula can be represented as Y = AX + B + CV, where CV represents the confounding variables (GPA + major + gender + race). The GPA would be a continuous variable in which you would key all of the GPAs for the participants. The major, gender, and race would all be nominal variables. The major would be codes 0 for non-majors and 1 for majors if the course subject is related to a major; otherwise, the major is not needed as a variable and can be omitted. This coding assumes that non-majors would not do as well as majors. Gender would be coded as 0 for male and 1 for female, if we assume that men generally perform worse than women in college. Race would be coded as 0 for non-white and 1 for white if we assume that non-white students do not perform as well as white students. The assumptions may not be true. The t-value will indicate the significance of the control variable. If the t-value is 1.67 or higher, it is considered a significant finding.

7. Conclusion

Researchers conducted studies in many countries around the world and examined the behavior of students at all education levels. They all concluded that students will use electronics for off-task behavior in the classroom. This behavior will also distract peers seated around them. The result is a significant amount of wasted class time and decreased learning. Fortunately, there is an easy solution. I predict that a demerit system in which points are lost will significantly reduce unwanted student behavior in the classroom, specifically the use of electronic devices for non-academic activities, resulting in increased achievement as measured by the final exam.

Researchers have provided significant evidence that students are motivated by educators who exercise strong classroom-management skills (Monroe, 2009; Williams & Williams, 2011; Yilmaz et al., 2017). Effective classroom management requires the enforcement of rules, policies, and consequences (Al Qahtani, 2016). If there are no consequences, the rules will not be taken seriously and the problem with unwanted behavior will persist.

Consequences do not need to be severe. For some students, simply pointing out or drawing attention to an infraction is enough to avoid further problems. For other students, a little embarrassment is not enough. To effectively motivate all students, it is necessary to exploit something that all students value, their points. A demerit system in which points are lost is the best way to eliminate the problem. Motivation theory suggests that students fear the loss of points they already earned more than they appreciate the promise of a reward for good behavior. Some students will be motivated by rewards, but not all of them. There will always be a few students who will forgo a reward for the opportunity to text a friend sitting next to them, update their Facebook page, or play Candy Crush; however, no student wants to lose points they already have. Explain the class rules, explain the consequences (for instance, take away five points for every infraction with no limit to the points they can lose) and see how quickly behavior may change.

References

Al Qahtani, N. (2016). The undesirable behaviors of students in academic classrooms, and the discipline strategies used by faculty members to control such behaviors from the perspective of the College of education students in King Saud University. *International Education Studies, 9*(3), 197-211. doi:10.5539/ies.v9n3p197

Attia, N. A, Baig, L., Marzouk, Y. I., & Khan, A. (2017). The potential effect of technology and distractions on undergraduate students' concentration. *Pakistan Journal of Medical Sciences, 33*(4), 860-865. doi: 10.12669/pjms.334.12560

Ausubel, D. P. (1955). Relationships between shame and guilt in the socializing process. *Psychological Review, 62*(5), 378-390. doi: 10.1037/h0042534

Beland, L. P., & Murphy, R. (2016). Ill communication: Technology, distractions & student performance. *Labour Economics, 41*, 61-76. doi: 10.1013/j.labeco.2016.04.004

Carter, S. P., Greenberg, K. A., & Walker, M. S. (2017). The impact of computer usage on academic performance: Evidence from a randomized trial at the United States Military Academy. *Economics of Education Review, 56*, 118-132. doi: 10.1016/j.econedurev.2016.12.005

Davison, M. (1991). Choice, changeover, and travel: A quantitative model. *Journal of the Experimental Analysis of Behavior, 55*, 47-61. doi:10.1901/jeab.1991.55-47

Ehrlich, I. (1996). Crime, punishment, and the market for offenses. *Journal of Economic Perspectives, 10*(1), 43-67. doi: 10.1257/jep.10.1.43

Ein-Gar, D., Shiv, B., & Tormala, Z. L. (2012). When blemishing leads to blossoming: The positive effect of negative information. *Journal of Consumer Research, 38,* 846-859. doi: 10.1086/660807

Feinberg, M., Willer, R., & Keltner, D. (2012). Flustered and faithful: Embarrassment as a signal of prosociality. *Journal of Personality and Social Psychology, 102*(1), 81-97. doi: 10.1037/a0025403

Frisby, B. N., Sexton, B. T., Buckner, M. M., Beck, A., & Kaufmann, R. (2018). Peers and instructors as sources of distraction from a cognitive load perspective. *International Journal for the Scholarship of Teaching and Learning, 12*(2). doi: 10.20429/ijsotl.2018.120206

Glass, A. L., & Kang, M. (2019). Dividing attention in the classroom reduces exam performance. *Educational Psychology, 39*(3), 395-408. doi: 10.1080/01443410.2018.1489046

Goffman, E. (1956). Embarrassment and social organization. *American Journal of Sociology, 62,* 264-271. doi: 10.1086/222003

Goffman, E. (1967). *Interaction ritual: Essays on face-to-face behavior.* Garden City, NY: Anchor.

Goundar, S. (2014). The distraction of technology in the classroom. *Journal of Education & Human Development, 3*(1), 211-229. http://jehdnet.com/journals/jehd/Vol_3_No_1_March_2014/14.pdf

Gray, L. N., Stafford, M. C., & Tallman, I. (1991). Rewards and punishments in complex human choices. *Social Psychology Quarterly, 54*(4), 318-329. doi: 10.2307/2786844

Hackenberg T. D. (2009). Token reinforcement: A review and analysis. *Journal of the experimental analysis of behavior, 91*(2), 257–286. doi: 10.1901/jeab.2009.91-257

Hardie, B., Johnson, E. J., & Fader, P. (1993). Modeling loss aversion and reference dependence effects on brand choice. *Marketing Science, 12*(4), 378-394. doi: 10.1287/mksc.12.4.378

Harrison, J. R., Vannest, K., Davis, J., & Reynolds, C. (2012). Common problem behaviors of children and adolescents in general education classrooms in the United States. *Journal of Emotional and Behavioral Disorders, 20*(1), 55-64. doi: 10.1177/1063426611421157

Herrnstein, R. J., & Hineline, P. N. (1966). Negative reinforcement as shock-frequency reduction. *Journal of the Experimental Analysis of Behavior, 9*, 421-430. doi: 10.1901/jeab.1966.9-421

Iten, N., & Petko, D. (2016). Learning with serious games: Is fun playing the game a predictor of learning success? *British Journal of Educational Technology, 47*(1), 151–163. doi: 10.1111/bjet.12226

Jacob, B., Adelaiye, O., & Bijik, A. (2018). Effect of technology distraction on learning among students in higher institutions in central Nigeria. *Circulation in Computer Science, 3*. doi: 10.22632/ccs-2018-252-83

Jacobsen, W. C., & Forste, R. (2011). The wired generation: Academic and social outcomes of electronic media use among university students. *Cyberpsychology, Behavior, and Social Networking, 14*(5), 275-280. doi: 10.1089/cyber.2010.0135

Junco, R. (2012). In-class multitasking and academic performance. *Computers in Human Behavior, 28*, 2236-2243. doi: 10.1016/j.chb.2012.06.031

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47*(2), 263-291. doi: 10.2307/1914185

Kahneman, D., Knetsch, J., & Thaler, R. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy, 98*(6), 1325-1348. doi: 10.1086/261737

Keltner, D., & Buswell, B. N. (1997). Embarrassment: Its distinct form and appeasement functions. *Psychological Bulletin, 122*(3), 250-270. doi: 10.1037/0033-2909.122.3.250

Keltner, D., & Anderson, C. (2000). Saving face for Darwin: The functions and uses of embarrassment. *Current Directions*

in Psychological Science, 9(6), 187-192. doi: 10.1111/1467-8721.00091

Keltner, D., Young, R. C., & Buswell, B. N. (1997). Appeasement in human emotion, social practice, and personality. *Aggressive Behavior, 23*(5), 359-374. doi: 10.1002/(SICI)1098-2337(1997)23:5<359::AID-AB5>3.0.CO;2-D

Kochanska, G. (1993). Toward a synthesis of parental socialization and child temperament in early development of conscience. *Child Development, 64*(2), 325-347. doi: 10.2307/1131254

Kraushaar, J. M., & Novak, D. (2010). Examining the effects of student multitasking with laptops during the lecture. *Journal of Information Systems Education, 21*, 241-251. doi: 10.1016/j.compedu.2006.09.006

Krettenauer, T., Colasante, T. Buchmann, M., & Mal, T. (2014). The development of moral emotions and decision-making from adolescence to early adulthood: A 6-year longitudinal study. *Journal of Youth Adolescence, 43*, 583–596. doi: 10.1007/s10964-013-9994-5

Kubanek, J., Snyder, L. H., & Abrams, R. A. (2015). Reward and punishment act as distinct factors in guiding behavior. *Cognition, 139*, 154-167. doi: 10.1016/jcognition.2015.03.005

Mandah, N. N. (2019). Strategies for managing classroom distractions for effective teaching and learning. *International Journal of Scientific Research in Education, 12*(4), 509-523. http://www.ijsre.com/assets/vol.%2C-12(4)-mandah.pdf

McClurg, L., & Morris, R. (2014). Shaping student behaviors through reward systems: Lessons from beaver trapping? *Journal of Higher Education Theory and Practice, 14*(2), 89-102. http://www.na-businesspress.com/JHETP/McClurgL_Web14_2_.pdf

McGraw, A. P., Larsen, J. T., & Kahneman, D. (2010). Comparing gains and losses. *Psychological Science, 21*(10), 1438-1445. doi: 10.1177/0956797610381504

Mellers, B., Schwartz, A., Ho, K., & Ritov, I. (1997). Decision affect theory: Emotional reactions to the outcomes of risky options. *Psychological Science, 8*(6), 423-429. doi: 10.1111/j.1467-9280.1997.tb00455.x

Mellers, B., Schwartz, A., & Ritov, I. (1999). Emotion-based choice. *Journal of Experimental Psychology: General, 128*(3), 332-345. doi: 10.1037/0096-3445.128.3.332

Monroe, A. (2009). Same solutions: How shame impacts school-aged children and what teacher can do to help. *The Educational Forum, 73*, 58-66. doi: 10.1080/00131720802539614

Murayama, K., & Elliott, A. J. (2011). Achievement motivation and memory: Achievement goals differentially influence immediate and delayed remember–know recognition memory. *Personality and Social Psychology Bulletin, 37*(10), 1339–1348. doi: 10.1177/0146167211410575

Neiterman, E., & Zaza, C. (2019). A mixed blessing? Students' and instructors' perspectives about off-task technology use in the academic classroom. *The Canadian Journal for the Scholarship of Teaching and Learning, 10*(1). doi: 10.5206/cjsotl-rcacea.2019.1.8002

Novemsky, N., & Kahneman, D. (2005). The Boundaries of loss aversion. *Journal of Marketing Research, 42*(2), 119–128. doi: 10.1509/jmkr.42.2.119.62292

Payne Carter, S., Greenberg, K., & Walker, M. S., (2017). The impact of computer usage on academic performance: Evidence from a randomized trial at the United States Military Academy. *Economics of Education Review, 56*, 118-132. doi: 10.1016/j.econedurev.2016.12.005

Potts, G. F. (2011). Impact of reward and punishment motivation on behavior monitoring as indexed by the error-related negativity. *International Journal of Psychophysiology, 81*(3), 324-331. doi: 10.1016/j.ijpsycho.2011.07.020

Ravizza, S. M., Hambrick, D. Z., & Fenn, K. M. (2014). Non-academic internet use in the classroom is negatively related to classroom learning regardless of intellectual ability. *Computers & Education, 78,*109-114. doi: 10.1016/j.compedu.2014.05.007

Ravizza, S. M., Uitvlugt, M. G., & Fenn, K. M. (2017). Logged in and zoned out: How laptop internet use relates to classroom learning. *Psychological Science, 28*(2). doi: 10.1177%2F0956797616677314

Rekart, J. L. (2011). Taking on multitasking. *Phi Delta Kappan, 93*(4), 60-63. doi: 10.1177%2F003172171109300415

Risko, E. F., Bchanan, D., Medimorec, S., & Kinstone, A. (2013). Everyday attention: Mind wandering and computer use during lectures. *Computers & Education, 68*, 275-283. doi: 10.1016/j.compedu.2013.05.001

Sana, F., Weston, T., Cepeda, N. (2013). Laptop multitasking hinders classroom learning for both users and nearby peers. *Computers & Education, 62,* 24-31. doi: 10.1016/j.compedu.2012.10.003

Scheff, T. J. (1988). Shame and conformity: The deference-emotion system. *American Sociological Review, 53*(3), 395-406. doi: 10.2307/2095647

Schuster, R., & Rachlin, H. (1968). Indifference between punishment and free shock: Evidence for the negative law of effect. *Journal of the Experimental Analysis of Behavior, 11*(6), 777-786. doi: 10.1901/jeab.1968.11-777

Seemiller, C. (2017). Curbing digital distractions in the classroom. *Contemporary Educational Technology, 8*(3), 214-231. https://files.eric.ed.gov/fulltext/EJ1148591.pdf

Sidman, M. (1962). Reduction of shock frequency as reinforcement for avoidance behavior. *Journal of the Experimental Analysis of Behavior, 5*, 247-257. doi: 10.1901/jeab.1962.5-247

Skinner, B. F. (1962). Two: Synthetic social relations. *Journal of the Experimental Analysis of Behavior, 5*, 531-533. doi: 10.1901/jeab.1962.5-531

Sun, R. C. F, & Shek, D. T. L. (2012). Student classroom misbehavior: An exploratory study based on teachers' perceptions. *The Scientific World Journal*. doi:10.1100/2012/208907

Thaler, R. (2008). Mental accounting and consumer choice. *Marketing Science, 27*, 15-25. doi: 10.1287/mksc.1070.0330

Thorndike, E. L. (1898). Animal intelligence: An experimental study of the associative processes in animals. *The Psychological Review: Monograph Supplements, 2*(4), i-109. doi: 10.1037/h0092987

Thorndike, E. L. (1911). *Animal intelligence: Experimental Studies*. Macmillan. https://ia802705.us.archive.org/24/items/animalintelligen00thor/animalintelligen00thor.pdf

Thorndike, E. L. (1927). The law of effect. *The American Journal of Psychology, 39,* 212-222. doi: 10.2307/1415413

Tversky, A., & Kahneman, D. (1990). Rational choice and the framing of decisions. *The Journal of Business, 59*(4), S251-S278. doi: 10.1007/978-3-642-74919-3_4

Van Deventer, I. A. (2015). The use of traditional summative testing to maximize student achievement: An empirical study. *Journal of Higher Education Theory and Practice, 15*(5), 61-66. http://www.na-businesspress.com/JHETP/VanDeventerIA_Web15_5_.pdf

Villiers, P. A. (1980). Toward a quantitative theory of punishment. *Journal of the Experimental Analysis of Behavior, 33,* 15-25. doi: 10.1901/jeab.1980.33-15

Williams, K., & Williams, C. (2011). Five key ingredients for improving motivation. *Research in Higher Education Journal, 11*. http://aabri.com/manuscripts/11834.pdf

Yilmaz, E., Sahin, M., & Turgut, M. (2017). Variables affecting student motivation based on academic publications. *Journal of Education and Practice, 8*(12), 112-120. https://files.eric.ed.gov/fulltext/EJ1140621.pdf

Zainal, K., & Salleh, N. M., (2007). The implementation of the penalty system program for vandalism in school: A case study. *The International Journal of Learning, 14*(9), 123-131. http://cpiasia.net/v3/images/policy_papers/The%20Implementation%20of%20the%20Penalty%20System%20Program%20for%20Vandalism%20in%20School.pdf

Zimmerman, B. F. (1995). *The nature and consequences of classroom disruption* [Doctoral dissertation, University at Albany – State University of New York]. https://interruptions.net/literature/Zimmerman-PhD.pdf

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

To tell the truth sometimes it pays to lie

John F. Hulpke[A]

[A] *Lecturer, University College Dublin, Singapore*

Keywords

Business education;
ethics education;
ethical lying;
lying;
philosophy of education;
white lies.

Article Info

Received 27 July 2020
Received in revised form 15 September 2020
Accepted 17 September 2020
Available online 17 September 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.12

Abstract

Thou shalt not lie. Kant famously said one must always tell the truth. Even with a murderer at the door one cannot lie. Probably no one else holds this extreme view. There are times a lie is appropriate, ethical. When might it be permissible to lie? Are there times when it might be not only OK to lie but be appropriate to lie? But others remind us that a business cannot succeed in the long run by lying, In education we help people learn how to make effective and ethical choices. Specific examples and mini-cases related to these issues help get classroom or online conversations started. Question are discussed, usually in dyads. The discussion does not end here. Our classroom experiences and feedback from students convinces us: to tell the truth, sometimes it pays to lie.

To tell the truth sometimes it pays to lie

Business educators provide tools managers need to make choices. In business education we teach, we help people learn, how to make decisions, including decisions with ethical implications (Gibbons et al., 2016; Jackson et al., 2016). In our classes we use cases and scenarios. One principle that appears in many of these cases involves whether or not to lie.

We learned in school that the famous and wise philosopher Immanuel Kant bluntly stated that it is always wrong to lie. Once a person even considers possible exceptions, "that person is already potentially a liar" (Kant, 1949 [1799] p. 349). Kant was not the last to say do not lie and was certainly not the first. The Judeo-Christian tradition includes as one of the Ten Commandments "thou shalt not bear false witness against thy neighbor" which some newer versions reword as "you must not tell lies…" (Exodus 20:16, New Century Version). Why not lie? Even setting the issue of morality aside, forgetting right and wrong, there are many who warn against lying. Thomas Becker says it bluntly: "a business cannot, in the long run, succeed by lying" (Becker, 1998, p. 159). This is a business education issue.

We must not tell lies. This sounds reasonable but the story is more complex than this. I show that sometimes lying is appropriate, even ethical. To tell the truth, sometimes it pays to lie. While everyone from Becker to the Ten Commandments tell us "thou shalt not bear false witness," lying persists. The following pages show that lying is sometimes correct in society and at times in business. Where and when? These questions deserve exploration. This essay helps move forward the discussion as follows, in overlapping sections: (1) what is lying and what is meant by lying in this paper, (2) how to determine whether and when lying might be ethical, and (3) limitations of this analysis and suggestions for further study.

The title of this paper includes ambiguous wording. A literal translation of the phrase above "to tell the truth, sometimes it pays to lie" would not convey the meaning of the sentence. The words "to tell the truth" often means the same as "actually" or "as far as I know" and are not necessarily related to truthfulness. One dictionary says "to tell the truth" idiomatically can mean "actually" (Free Dictionary, 2019). For example, the phrase "to tell the truth we never did find a good Mexican restaurant last night but we did find a great Chinese restaurant" has nothing to do with truth. The wording means "actually." In popular usage in English, the phrase to tell the truth may bring memories of a television show that ran on a US TV network from 1956 to 1981, then restarted in 2001 and again in 2006. Meanwhile, the whole idea of "TV networks" and "TV shows" has changed over the years, but the issues suggested in that American television entertainment program series remain. Today social media also looks at truth and lying. The same topic is definitely a subject for scholarly attention as well. A search in Google Scholar for "lying in business" in quotes brings up 109 entries. A search for lying in business not in quotes shows 950,000 entries. Even though Google Scholar sometimes double counts and sometimes misses things, the entries that are shown illustrate significant, current, interest in the topic of lying.

The second part, "pays to lie," also is often not taken literally word for word. "It pays to lie" might have nothing to do with paying or with money. "It pays to" is a slang phrase suggesting that something can be beneficial, necessary, and/or required (Hwang & Kim, 2009; 2017). The use of ambiguous words to start this discussion helps introduce the complex philosophical issue of lying. If anyone has the misfortune of being asked to translate this essay from English into another language she or he might be driven nuts when trying to translate "it pays." And the term "driven nuts" is also not directly translatable. This topic of lying is important and is receiving a lot of attention in society (Bhattacharjee, 2017; Lundquist et al., 2009) and in business (Eenkhoord & Graafland, 2011). The topic is also timely. A person who is caught lying once can never again regain 100% credibility. Without credibility one can not gain full trust and trust is fundamental to all interpersonal and inter-organizational interactions. Without trust, reputation can never be the same. This small essay contributes to the understanding of one component within this big picture. Better understanding of lying can help us better understand trust and better manage reputation, both important in business and society.

Lying occurs in life and in business. But what exactly do we mean by lying? Might it be appropriate to lie? Might there be cases where the ethical thing to do would be to lie? If so how to decide when to lie? What ethical decision-making criteria can help one decide? What theories of ethics can guide a person? Do theories yield similar advice? These questions are very broad and volumes have been written on related areas. I focus narrowly in this paper leaving much work for scholars and practitioners who will follow.

What is lying and what do i mean by the word lying?

In this essay to lie is to intentionally deceive someone by using words the speaker knows to be untrue. The definition by Pruss conveys much the same meaning: sincerely asserting what you do not believe (2012). Although this is the definition used here it is not the only accepted definition. Indeed there are hundreds of articles and books which attempt to define lying (Carson, 1988; Gaspar et al., 2019; Jenkins & Delbridge, 2017; Jones, 1986). One very interesting scholarly article on "lying in everyday life" gives examples of different categories of lies (See appendix 3, taken from DePaulo et al., 1996). But that same article inadvertently shows how complex the topic is. In the very first paragraph various perspectives on "lying" are provided. But the second paragraph of that paper, summarizing the first paragraph, discusses the widely varying "pronouncements about deceit" (p. 979). The topic "lying" now becomes the topic "deceit." While both deserve study and analysis, they are not identical.

In this paper I look at lying by individuals, not at honesty, not at deceit. There are times when individuals intentionally mislead others by saying nothing, or by saying something that is truthful but misleading. One can mislead others by using body language. We do not discuss these "non-lying" methods to mislead, reserving those for future study. I also

exclude statements one believes to be true but are in fact false. In 2018 reports about US Supreme Court nominee Brett Kavanaugh there were claims that Kavanaugh lied even in Senate hearings (Feller, 2018). But even if the allegations about misconduct including teen-age drinking were true, it is possible that Kavanaugh might not remember those incidents. Kavanaugh might now three decades later be stating what he remembers. Although some witnesses said he was not telling the truth, Kavanaugh may have believed what he said. He may not think he was lying. If he believed he was telling the truth, by my definition he was not lying. There are those who observe the same Senate hearings and conclude that the main Kavanaugh accuser, Dr. Christine Blasey Ford, "lied" (MediaBuster, 2018). But again here, even if some of Dr. Ford's statements are shown to be untrue, she may have stated them believing they were true. Thus, by my definition, they would not be lies. Having watched parts of the testimony of both parties, I can imagine that both believed they were telling the truth. Thus, it is possible that neither was lying. Lying is the *conscious stating as fact something a person knows to be untrue*.

There is no accepted "theory of lying" but "the traditional view of lying holds that this phenomenon involves two central components: stating what one does not believe oneself and doing so with the intention to deceive" (Lackey, 2013, p. 236). Without that second part, most but not all agree there is no lying. Arguments continue as to the minimum requirements for a statement to be classified as a lie. In the examples relating to US Supreme Court Justice Brett Cavanaugh above the first part may be missing. If one believes she or he is telling the truth that is not lying. This may help reclassify many of the "lies" of US President Donald Trump.

Lying is a popular area of discussion in the years following the 2016 US Presidential election. In one well-publicized case President Trump said that the size of the crowd at his inauguration was much larger than reported by the media. This might fit into the third category, statistics, from the popular phrase "lies, damned lies, and statistics." Trump was widely accused of lying about the numbers in attendance. When confronted with proof Trump's statistics were incorrect, his White House counsel Kellyanne Conway called these exaggerations not lies but "alternative facts" (McGranahan, 2017). One academic clearly agrees with those who say Trump lies too much: "it has long been a truism that politicians lie, but with the entry of Donald Trump into the US political domain, the frequency, degree, and impact of lying in politics are now unprecedented" (McGranahan, 2017, p. 243). Some in the news media also focus on Trump's statistics and conclude that:

> Trump is different. When he is caught lying, he will often try to discredit people telling the truth, be they judges, scientists, F.B.I. or C.I.A. officials, journalists or members of Congress. Trump is trying to make truth irrelevant. It is extremely damaging to democracy, and it's not an accident. It's core to his political strategy (Leonhardt, Philbrick, & Thompson, 2017, p.1).

However, many of Trump's "lies" are not "lies" as defined in this paper. Trump often says whatever he thinks even when he has no idea what the truth is. Trump may think he is telling the truth (Knight & Tsoukas, 2019). In this analysis which follows I look only at *lying*.

By limiting our focus I defer study on many interesting behaviors. There are scholars looking at the imprecise and ambiguous word "paltering" (Rogers et al., 2017). Sometimes the word paltering (which the English language probably does not need) means telling the truth to mislead, but other times the term is used more broadly. The word paltering is sometimes used as a synonym for misleading, which then could include lying. There are other ways a person can communicate with intention to mislead also. All these areas deserve attention, as honesty and integrity are seen as an essential in business transactions. In this paper I do not look at integrity in business, as important as that is (Bauman, 2013). Nor do I look at honesty (Cable & Kay, 2011). I do not look at trust (Alm, 2015; Levine & Schweitzer, 2015; McAllister, 1997; Shapiro, 1987). I do not look at truth, which according to pragmatists "cannot be absolute; it is always provisional and instrumental" (Jacobs, 2004, p. 218). I look only at one small component of this huge complex, lying.

Types of lying and where might one encounter lying

American humorist Mark Twain used the "phrase lies, damned lies, and statistics." Twain did not claim that he originated the phrase, and apparently the words have been around for a long time (Martin, 2018). This categorization scheme appears widely and is commonly used. Indeed, the use of statistics to lie is noteworthy. President Trump's fuzzy statistics are mentioned above and were discussed again and again as Covid-19 spread across America (Balog-Way & McComas, 2020; Barrios & Hochberg, 2020). Some academics criticize other academics for drawing incorrect conclusions based on faulty statistics or misuse or misinterpretation of possibly correct statistics (Hilbert, 2011).

Leaving numbers aside, a look at the literature shows numerous ways to categorize lies. Western society uses a number of euphemisms to describe "harmless" or "insignificant" lies. The term white lies is common (Erat & Gneezy, 2011). Winston Churchill used the words "terminological inexactitude" (Fisher & Lovell, 2009, p. 72). The phrase "economical with the truth" suggests misleading others at a threshold lower than actually telling lies. Some make a distinction between "self-oriented" and "other oriented" lies (DePaulo et al., 1996). One similar but not identical categorization looks at who might *benefit*, self or others, or perhaps both (Erat & Gneezy, 2011). A "benevolent falsehood" would often be seen positively. A student might lie to benefit self: copy another student's paper or take passages or take entire papers from the web and state "I declare that all materials included in this report is the end result of my own work." That statement is required in my university but some students signing that statement are lying.

Sometimes a student will lie to help others. Many universities have various attendance tracking systems. In one university students vote during a class on various issues using a "Personal Response System," a PRS device. The actual device which looks like a TV remote is issued to each student at the beginning of the semester. Various websites used by academics in the 2020s allow a student to vote on issues in a mobile phone using Mentimeter (Rudolph, 2018). An issue is discussed in class and on conclusion of the topic students select answer A or B or C or D. Votes can be tallied and shown to the class, a great instructional tool. But at my prior university the same PRS device also tracked attendance. A professor at that university found one student carrying 5 PRS devices, allowing 4 students to be counted as attending while not in class. My university has a system to track student attendance. Students use their chip-enhanced university ID cards to "tap in" on a device on the wall by the door upon entering the class and "tap out" when class is over. In a sad but true recent case, one very very short student entered the classroom and had to jump a bit to reach the tap-in device on the wall by the door. She then repeated the jump four more times, seen by everyone in the room, helping four absent friends "lie."

Sometimes in business lies are told to benefit the individual liar. The business misconduct literature is full of cases where executives used lies to enrich themselves. But sometimes people in business lie "for the good of the business." That argument sometimes goes, "many jobs are at stake here, a temporary adjustment of earnings will be to the benefit of all" (Loomis et al., 1999). For years, some business executives have lied about political contributions, believing the nation needed the "right" political candidate to win (Epstein, 1976).

In a classic paper in Harvard Business Review, Albert Carr (1968) asked, "is business bluffing ethical?" Carr does not clearly answer the question but does make a convincing case that "bluffing," lying, is common in some situations. Carr described his Harvard course on negotiations, and the publicity which followed embarrassed Harvard (Seligmann, 1979). Even today that article provokes strong reactions (Eabrasu, 2018).

An immense literature exists on lying for the greater good and lying to benefit oneself. But even "lying to benefit self" can be complex. Sometimes lies are told not for financial gain but to manage self-identity. Leavitt and Sluss (2015) convincingly show that lying can be a socially motivated behavioral response to identity threats. I take this line of thinking one step further. I show that lying can be socially motivated even in instances not directly related to protection of identity. Lying can be, purely and simply, altruistic. Lying can occur for the sole or primary purpose of helping another. This can occur frequently thus can be considered an element of individual ethics. Altruistic lying can occur in society, and in business. Whether and under what conditions altruistic lying might be unethical and when it might be seen as ethical has been discussed for centuries (Kant, 1949, original 1799) but remains open for discussion.

Lying is seen in everyday life, as careful research by Bella DePaulo and colleagues shows (DePaulo et al., 1996). Their work has been expanded on by more than a thousand papers citing their work since their original "lying diaries" study was published. Parents lie to children often for reasons they can (try to) justify (Vanderbilt et al., 2011). Lying occurs in interactions between organizations as in negotiations (Moosmayer et al., 2016; Wertheim, 2016). Lying is found in ways organizations communicate with the outside world (Bauman, 2013; Morrison et al., 2018; Rockness & Rockness, 2005). For example, there is a huge literature on "greenwashing," where organizations lie or mislead to create "favorable stakeholder impressions without substantially improving the organizations' environmental performance" (Cadez et al., 2019, p. 2. See also Andreoli et al., 2017; Walls & Bulmer, 2017; Wang et al., 2018). While these studies cited here often have a broader scope than our topic, each also includes lying, *conscious stating as fact something a person knows to be untrue*. In case after case, study after study, lying is seen as harmful. As one executive stated "What really bothered me was when I was being lied to" (Moosmayer et al., 2016. p. 135).

When lying might be unethical and when ethical

Some lying is widely seen as neither ethical nor unethical. In responding to "how are you?" one is expected to say "fine, how are you?" The research by DePaulo and colleagues cited above (DePaulo et al., 1996) started from diaries where individuals were asked to keep track of and record lies. As that article explains (p. 981), "the only example of a lie they were asked not to record was saying 'fine' in response to perfunctory 'how are you?' questions." A Mandarin speaker does not reply to the common greeting "chi fan le ma?" by saying yes, I had rice already. These questions and responses are omitted from studies on lying. Why? Some lies are not unethical.

In American culture one is allowed, expected, to be a little but loose when talking abut weight, especially if the person's weight is more than is currently socially acceptable. In answer to a traffic patrol officer's question, "how fast do you think you were going?" no one would be expected to exaggerate but most would not be surprised if you fudged downward a bit. The words "a little bit loose" implies that this is not a big bad lie. But when translated, again, the term might be lie. The same would apply to "fudge a bit." Replace with lie and it can be seen that there are circumstances where the word lie is avoided, but untruthfulness, lies, are expected. If being untruthful is lying, these examples illustrate that lying is at times in American culture considered okay. Lying in a court of law may be one of the worst times to lie. There are reasons not to lie to a judge. One is often asked before testimony "do you promise to tell the truth, the whole truth, and nothing but the truth?" (Grover, 2005). A respondent typically agrees, "I so swear." Then when asked how fast were you going, an expected response might be similar to "I do not remember clearly." In the US a political appointee of President Donald Trump may say, after being fired, say "I felt it was time to leave." In many business cases of employment termination a person is asked, or given the chance to, "voluntarily" resign. Then later when asked, "were you fired?" the person might say "no, I quit."

In business making a sale is often contingent on the purchaser having positive impressions about the product or service quality or timing. The sentence "I'm sure they can deliver this by the first of the month" may in fact mean that the sales person hopes the product can be delivered by a specific date, but delivery schedules are not within the control of the sales person. Given this, the sales person believes it is okay, ethical, to give hopes as facts in order to make sales.

All these cases are enough to show that some lies are expected and are in the USA culturally acceptable. However, the examples here shed little light on business ethics or on business ethics education. It would be helpful to consider the question when might it be ethical to lie in a broader context. Indeed the original Kant blanket prohibition against lying involved a life or death scenario given by a philosopher Benjamin Constant with whom Kant strongly disagreed. Constant had said if there is a murderer at the door, asking if the person he now wants to murder is in this house, the answer must be no, that person is not here. Kant held that even in this case it would not be permissible to lie. Probably even Kant knew few would be convinced by his unequivocal stance. But at least, Kant was clear and consistent. How can all this be connected to business ethics education? A discussion of the issues above might help get a conversation started. Then students can be asked to think and respond to questions. For example, one could use some variation of the survey shown below and also in appendix 1 of this essay.

Educational imperative: Teach when lying can be ethical, how to decide

Students typically become engaged when discussing potentially controversial topics such as lying. A lecture approach seems less likely to generate thought as compared to small group activities attempting to solve hypothetical or real problems where lying might be appropriate. We asked students to react to mini-cases where a decision was required. We first asked students to answer individually, and then discussed in twos or threes. The responses that follow are from adult learners in part-time undergraduate business courses offered by a European University in Singapore. Singapore has a very rich mixture of cultures, and there might be differences between cultural groups. For example, those of Singaporean-Chinese heritage might respond differently that Indian or Malaysian or Western or even Mainland Chinese. But these surveys were used only for the purpose of helping students learn about lying, and demographic data were not considered: whatever the culture, the scenarios used require decisions, lie or tell the truth.

For each of four questions, students were asked to decide between five options: a) in this case it would be best to lie, b) maybe best to lie, c) not sure, d) probably not ethical to lie, and e) definitely not ethical to lie. The questions, first answered individually by adults taking university business courses, follow:

1. You told the client that it would be a three hour job. You work hard and finished the job in two hours. You write up a bill saying you worked three hours. In this situation, is it OK to lie?

2. You read the reports: this line of tires your boss wants you to sell has serious safety problems. The tires will be discontinued but first "we need to clear out all the old stock." You need this job, and your boss insists you MUST SELL these tires. A family of five shows up in an older car and is ready to buy four new tires. It looks like the deal may be finalized then the motorist asks, "any safety problems with this tire?" In this situation, is it wrong to lie? You KNOW there are safety issues. But you need your job. Should you tell the truth?

3. The time is the 1940s, during the Second World War. You live in Holland, and your nation has been taken over by Hitler's German army. One move by the Hitler forces was to round up all who were then marched off to trains to be shipped to what rumors said were concentration camps. This seemed strange and even barbaric to all so a number of Jewish people were secretly moved to hidden attic apartments, and secretly supplied food by neighbors. One day you are stopped by a Gestapo agent who asks, "are there any Jews living in hiding on this street?" In this situation, is it wrong to lie? Should you tell the truth?

4. Your spouse or close friend shows up wearing clothes that make him or her look a bit funny, like an adult dressing up in the latest teenager style. He or she says, "How do I look?"

For purposes of this paper, and the educational goals of this exercise, the first interesting conclusion is that in this group of adult learners, most see times when lying is appropriate. Question 3 gives an opportunity to (after completion of the survey) discuss the Anne Frank case. Most students today in Singapore have very little idea about the Holocaust and no knowledge of how Anne Frank and her family was hidden safe, for several years before a local answered "honestly" that there was a Jewish family living "over there." The capture of that family led to her death, along with the 6,000,000 to 11,000,000 others. Historians still argue the number of deaths caused by Hitler but no estimates are below 5,000,000 (Berenbaum, 1981). And the bringing that huge impersonal, even incomprehensible, number down to one teenage girl who died because one person did not lie when he should have, helps make the discussion valuable educationally. But even with little or no idea about the holocaust or about Anne Frank, 375 out of 519 chose a), "it would be best to lie" Another 103 chose b) "maybe best to lie. Only 22 chose responses saying d) or e) indicating that it would be unethical to lie but after the discussion, even those came to agree that Kant was wrong, there are times one should lie.

The next part of the class discussion introduces the JUSTICE framework which is then applied to all four scenarios. The JUSTICE idea lists seven distinct approaches to issues of ethics, each letter for an approach such as Justice, Utiitarian, etc (see appendix 1). The discussions are invariably energized, even heated, with a lot of disagreement. The educational point is that *different approaches yield different answers*. The spiritual values approach resonates with all Singaporean cultures: it seems that all religions represented have an idea similar to the Judeo-Christian "Golden Rule," do unto others as you would have then do unto you. Problems with utilitarian approaches become clear when other famous cases are introduced. In Jim and the Jungle Jim can save a group of captured enemies if he agrees to kill one, the leader (Almond, 2001; Bedau, 1999), Very few in our classes say they could murder one to save many. Another famous mini-case is also introduced. You can save several victims from certain death from an oncoming trolley car by pushing one fat innocent bystander to her death, thus derailing the trolley and thus saving the group (Di Nucci, 2013). The discussions that follow show that utilitarianism can be impossible to apply: rarely will any student say, yes, I would push that fat person to her death to save many. Yet utilitarianism is still used to excuse many misdeeds, many lies.

The classroom exercise asked other questions also, relating to overcharging in business and misleading in order to make a sale, and in those scenarios, responses were made in each of the five categories. The point is, there are some cases where it is widely agreed one should lie. The facts of the Anne Frank case which are discussed in class AFTER the survey illustrates. Sometimes lying is appropriate, ethical. Different ethical decision making criteria (utilitarian, Golden Rule, justice, etc.) yield different answers. There are a number of frameworks that could be used in classes (see the web page of the Markula Center for Applied Ethics: scu.edu/ethics/ethics-resources/ethical-decision-making/a-framework-for-ethical-decision-making/).

Suggestions for further study

The survey which is described and discussed here should be replicated globally. Responses could be analyzed, exploring variations between genders, cultures, age groups. But more important than added study might be additional thinking. In my opinion, quantitative approaches to this analysis may not be enough. Many big questions have not yet been answered: When might lying be unethical and when ethical? For example, when might even altruistic lying be unethical? Further studies and additional thoughtful essays must follow. The timing is good. In the year 2020 people in the US and around the world are looking at lies in Washington DC (Balog-Way & McComas, 2020). More attention to the topic, more answers, may have significance for business and society and for business education.

The literature tells a lot about when and why people lie (for example Beck et al., 2020). It would be valuable to turn the topic upside down and explore when and why people tell the truth. As Abeler, Nosenzo, and Raymond report, "data from 90 experimental studies in economics, psychology, and sociology, and show that, in fact, people lie surprisingly little" (2019, p. 1115).

Much has been written on the value of, or difficulties with, educating students about making ethical choices (Piper et al., 2007; Sandel, 2011). Many educators explore a wide array of educational techniques, from role-play and simulations (Revoir, 2011) to debates (Lau, 2017) to case analyses (Wines, Anderson, and Fronmueller, 1998). One approach uses "bluffing games" (Shut Up and Sit Down web site, 2020) which could be followed by reflective discussions. Another stream of research looks at when and why academics lie (Bilos, 2019).

Limitations of this analysis

The focus here was, purposefully, at the individual level of analysis. By approaching lying in business and society from a business perspective we miss contextual factors. Individuals operate inside organizations, organizations which have their own cultures and are influenced and constrained by factors in the institutional environment (Baur et al., 2019; Hulpke, 2016; Jenkins & Delbridge, 2020). These other perspectives on lying would provide additional insights.

Further, this paper is written in English. The works we cite are in English. In English we can give distinct and different definitions for lying, misleading, obfuscation, paltering, integrity, honesty, trust, and truth. As mentioned above, translating terms such as these into a different language might yield different insights. To cite a simple example, consider a yes/no question in English, such as "do you agree with me?" Now consider the dictionary translation of 'yes' into Japanese. 'yes' in Japanese is 'hai'. However, 'hai' translated back into English might mean "I am thinking about what you said" or "perhaps" or "you make a good point." A waitress in a Japanese restaurant who approaches a recently seated customer may greet the customer by saying 'hai'. The waitress is not saying she agrees with what the customer has said as the customer has not said anything, the waitress is indicating hello, how can I help you, not stating "yes I agree." Thus a US President may say "the Japanese prime Minister lied to me" when the interpreter oversimplifies the 'hai' into 'yes' when the Japanese Prime Minister was telling the American president "we will consider that" not 'yes'.

'Manana' translated from Spanish to English is 'tomorrow' but 'manana' stated in a conversation may mean tomorrow or later or sometime in the future, maybe. 'Ken chon sumnida' might be translated as 'no problem' by the Korean to English interpreter but in daily usage the Korean saying 'ken chon sumnida' is not lying even if the speaker knows there is a problem, 'ken chon sumnida' often means "don't worry, everything will work out one way or another." Similarly, 'mei you wen ti' may be translated from Mandarin to English as 'no problem' but often means "don't worry things will probably work out." When asked "is this deal going to happen?" the Arab speaking respondent may say 'inshallah'. An interpreter may translate this as 'yes', it will happen, while a more correct literal translation may be 'God willing, or if Allah wills it'. But 'inshallah' might better be understood as 'only God knows, it may happen, it may not',

even when an interpreter may say 'she said yes'. These few examples illustrate that this English language paper simply can not be translated into any other language. The phrase on the first page, "to tell the truth, sometimes it pays to lie," hinted that transferability of ideas from one language or culture to another can be problematic.

One US business representative working in China in the 1980s came to the conclusion that cultural factors explained why his Chinese partners lied:

> I began to suspect more and more that the Chinese were, on occasion, lying to me, and eventually situations developed where I felt certain of it. My suspicions were reinforced when I read of the experiences of a Special Magistrate in Hong Kong… discussing the use of oaths in courtroom procedures. He stated, "naturally in a Chinese court no one is expected to tell the truth, and few ever do. Perjury is a word all but untranslatable into Chinese… No Chinese is going to tell the truth unless he can see some advantage in doing so. Why should he? Truth is private property" (Bauer, 1986, p. 123).

Bauer had the disadvantage of understanding neither the culture nor the language, but was probably not the only person to conclude that lying is influenced by culture. This essay bypasses this issue.

A further limitation relates to gender. Most business professors are still male (Lau & Hulpke, 2018) and academic cases are more likely to feature males than females. In the survey we use, students often assume the decision maker is male (especially for the first three of the four cases). The prison guards in Nazi Germany were predominately male, the person who told the truth which led to the death of Anne Frank was male, the decision maker in Jim and the Jungle is male, the key persons in the famous Sadhu case and video are all male (McCoy, 1983). In the original trolley car scenario the key figures are male. It is almost as if we live in a totally-male world. Future versions of the survey used here could be more careful to insure examples of decision makers are closer to the 50/50 male/female representation in the real world.

Additional study could tie lying to impression management. Birnbaum and colleagues note that individuals use various tactics to improve their chances of obtaining sexual partners even if these tactics "involve deliberate lying" (2020, p.7). Job seekers may carefully craft employment search to maximize opportunities, sometimes including lying (Weiss & Feldman, 2006). As science progresses, it might be possible for neuroscientists to explore this question further. As one example, Carson found neural hyperconnectivity in some individuals and drew connections to personality traits (Carson, 2013). Neurology and biology more generally may shed light on lying. Various scholars seek medical explanations for pathological lying (Grubin, 2005; Yang et al., 2005). Monteleone and colleagues (Monteleone et al., 2008) examine studies by Phan and others (Phan et al., 2005) and see patterns of activity in the medial prefrontal cortex when individuals lie. For more than 150 years the world has known the tragic story of Phineas Gage, who amazingly survived a steel rod having penetrated his skull and brain. His personality changed radically even though he managed to live a somewhat ordinary life for 11 years after the accident. Some scholars say, without proof, that the accident turned a personable dependable Gage into a pathological liar (Macmillan, 2000). Today neuroscientists are learning more about the physical characteristics of lying and liars.

The research on lying to date has been illuminating. From studies of diaries and other methodologies, we know that lying can sometimes be classified as *not* unethical. If lying can then be seen as within the realm of ethical behavior, when? Our motivation here is both academic and practical.

The questions addressed in this essay are more at the individual level, personal level. The questions here are at the managerial level more than at an organizational level. We do not address the question, "can companies lie?" Some organizations are said to have a culture of lying (Jenkins & Delbridge, 2020; Hulpke, 2017). What environmental and institutional factors might influence individuals who perceive themselves as honest to lie? After the widely publicized Carr paper on "bluffing" serious students of ethics sometimes look with disfavor at academic models or frameworks such as the JUSTICE model I discuss with students in conjunction with the four-question survey. Some of my colleagues have criticized my attempts to build ethical decision making abilities without first grounding students in the works of classic philosophers over the centuries. Covering Aristotelian thought in one sentence and Bentham and Mill in half a sentence each grates against the grain for many of my respected colleagues. But, as one professor put it, "students do not need Kant's third formulation of the categorical imperative – they need a simple values toolkit'' (Lau, 2010, p. 570). Unfortunately, even such models as the JUSTICE Model do not give clear and distinct guidelines as to when and where to lie. But, even though the discussion does not end here, our classroom experiences and feedback from our students convinces us: to tell the truth, sometimes it pays to lie.

Acknowledgements

Thanks to Barbara Green, Teresa Marie Kelly, Dan MacAllister, Elli Mileti, Richard Priem, and Brona Russell for ideas that contributed to the early development of this paper and to anonymous reviewers for suggestions at later stages.

Appendix 1: Lying survey

Lying? is it wrong to lie? Should you tell the truth? Consider these cases:

1. You told the client that it would be a three hour job. You work hard and finished the job in two hours. You write up a bill saying you worked three hours. In this situation, is it OK to lie?

2. You read the reports: this line of tires your boss wants you to sell has serious safety problems. The tires will be discontinued but first "we need to clear out all the old stock." You need this job, and your boss insists you MUST SELL these tires. A family of five shows up in an older car and is ready to buy four new tires. It looks like the deal may be finalized then the motorist asks, "any safety problems with this tire?" In this situation, is it wrong to lie? You KNOW there are safety issues. But you need your job. Should you tell the truth?

3. The time is the 1940s, during the Second World War. You live in Holland, and your nation has been taken over by Hitler's German army. One move by the Hitler forces was to round up all who were then marched off to trains to be shipped to what rumors said were concentration camps. This seemed strange and even barbaric to all so a number of Jewish people were secretly moved to hidden attic apartments, and secretly supplied food by neighbors. One day you are stopped by a Gestapo agent who asks, "are there any Jews living in hiding on this street?" In this situation, is it wrong to lie? Should you tell the truth?

4. Your spouse or close friend shows up wearing clothes that make him or her look a bit funny, like an adult dressing up in the latest teenager style. He or she says, "How do I look?"

	In this case it would be best to lie	Maybe best to lie	not sure	probably not ethical to lie	definitely not ethical to lie
Case 1					
Case 2					
Case 3					
Case 4					

This is part of a BIG survey, and one thing that may be analyzed later has to do with WHO completed the survey. So, thanks, a few personal questions… circle the best answer
AGE: 25 or younger 26 -34 age 35 and up MALE FEMALE

Years in work force, years you have worked 0-5 years 6 or more years

Countries where you have lived: One country Two countries Several countries

Figure 1: Lying survey

Appendix 2: The JUSTICE model (Lau, Hulpke, Kelly and To, 2007)

Lying? is it wrong to lie? Should you tell the truth? Consider these cases:

How to decide ethical questions? The below list contains seven different ways to look at any question with ethical implications. We will discuss in class. These seven each have supporters. The trouble is, when you use different tools to help you decide you may come up with different answers. Is there one best way? No. But, you might pick one favorite, which you will use first when an ethical question comes up. You might pick two or three favorites. The next section may help you see plusses and minuses of different ways to approach ethical questions. Here are seven ways to decide when faced with an ethical question:

Justice, applying same rules to all fairly, evenly
Utilitarian thought, does good outweigh bad
Spiritual values, Golden Rule, do unto others as you would want others to do unto you
Tv rule, knowing you must explain your decision on TV with your family watching
Influence, considering how big an influence (if any) your actions would have
Core values, the deepest human values, things
Really important in life
Emergency requiring immediate action, urgency of decision, a life or death issue

Different decision rules will give different answers. Applying the same rules to everybody is fair to the individual but *may not be the best decision for the group*. Should you save one life even if it means risking many lives? JUSTICE says 'yes'. Utilitarian says 'no'.

Appendix 3: Typology of lies (DePaulo, Kashy, Kirkenol, Wyer, and Epstein, 1996)

As shown by DePaulo and colleagues, there are many ways to categorize lies:

- Content of the lies
  - Feelings
  - Achievements
  - Actions, plans, whereabouts
  - Explanations
  - Facts, possessions
- Reasons for the lies
  - Self-centered
  - Other-centered
- Types of lies
  - Outright
  - Exaggerations
  - Subtle
- Referents of the lies
  - Liar
  - Target
  - Other person
  - Object or event

References

Abeler, J., Nosenzo, D., & Raymond, C. (2019). Preferences for truth-telling. *Econometrica, 87*(4), 1115-1153.

Alm, K. (2015). Teaching business ethics and stakeholder theory: Chains of trust or control? A stakeholder dilemma. *Journal of Business Ethics Education, 12,* 53-76.

Andreoli, T. P., Crespo, A., & Minciotti, S. (2017). What has been (short) written about greenwashing: A bibliometric research and a critical analysis of the articles found regarding this theme. *Revista de Gestão Social e Ambiental, 112*(2), 1-19.

Balog-Way, D. H. P., & McComas, K. A. (2020). COVID-19: Reflections on trust, tradeoffs, and preparedness. *Journal of Risk Research*, 1-11 (online before print).

Barrios, J. M., & Hochberg, Y. (2020). Risk perception through the lens of politics in the time of the covid-19 epidemic. *National Bureau of Economic Research Working Paper Series.* Online before print.

Bauer, E. E. (1986). *China takes off.* Seattle: University of Washington Press.

Bauman, D. C. (2013). Leadership and the three faces of integrity. *Leadership Quarterly, 24*(3), 414-426.

Baur, C., Soucek, R., Kuhnen, U., & Baumeister, R. F. (2019). Unable to resist the temptation to tell the truth or to lie for the organization? Identification makes the difference. *Journal of Business Ethics.* [Online before print].

Beck, T, Bühren, C., Frank, B. & Khachatryan, E. (2020). Can honesty oaths, peer Iinteraction, or monitoring mitigate lying?. *Journal of Business Ethics, 163*, 467–484.

Becker, T. E. (1998). Integrity in business: Beyond honesty and conscientiousness in business. *Academy of Management Review, 23*(1), 154-161.

Bedau, H. A. (1997). Jim and the Indians in the jungle clearing, in Bedau, H. A. (1997), *Making Mortal Choices: Three Exercises in Moral Casuistry*, Oxford: Oxford University Press.

Bedau, H. A. (1998). Making mortal choices, three exercises in moral casuistry. *Ethics, 109*(1), 174-176.

Berenbaum, M. (1981). The Uniqueness and universality of the holocaust: American theology after Auschwitz. *American Journal of Theology & Philosophy, 2*(3), 85-96.

Bhattacharjee, Y. (2017). Why we lie. *National Geographic, 4*(11), 27-47.

Bilos, A. (2019). Emerging focus on fake news issues in scientific research: A preliminary meta-analysis approach. *Interdisciplinary Management Research, 15,* 1139-1150.

Birnbaum, G. E., Iluza, M., & Reish, H. T. (2020). Making the right first impression: Sexual priming encourages attitude change and self-presentation lies during encounters with potential partners. *Journal of Experimental Social Psychology, 86*, 103904.

Cable, D. & Kay, V. (2011). Honesty is the best policy .*Business Strategy Review, 22*(1), 74-75.

Cadez, S., Czerny, A. & Letmathe, P. (2019). Stakeholder pressures and corporate climate change mitigation strategies. *Business Strategy and the Environment, 28*(1), 1-14.

Carr, A. A., (1968). Is business bluffing ethical?. *Harvard Business Review, 46* (January February), 2-8.

Carson, S. (2017). Creativity and psychopathology: Shared cognitive vulnerabilities. Chapter in Vartanian, O. Bristol, A. S., & Kaufman, J. C. (Eds.), *Neuroscience of Creativity. Boston: MIT Press.* (pp. 175-203).

Carson, T. L., (1988). On the definition of lying: A reply to Jones and revisions. *Journal of Business Ethics, 7*(7), 509-514.

DePaulo, B. M., Kashy, D. A., Kirkenol, S. E., Wyer, M. W., & Epstein, J. A. (1996). Lying in everyday life. *Journal of Personality and Social Psychology, 70,* 979 –995.

Di Nucci, E., (2013). Self-sacrifice and the trolley problem. *Philosophical Psychology, 26*, 662–672.

Eabrasu, M. (2018). Cheating in business: A metaethical perspective. *Journal of Business Ethics, 2018,* 1-14.

Eenkhoord, P., & Graafland, J. J. (2011). Lying in business: Insights from Hannah Arendt's 'Lying in Politics. *Business ethics: A European Review, 20*(4), 359–374.

Epstein, E. M. (1976). Corporations and labor unions in electoral politics. *The Annals of the American Academy of Political and Social Science, 425,* 33-58.

Erat, S., & Gneezy, U. (2011). White lies. *Management Science, 58*(4), 723–733.

Feller, M. (2018). All the times Brett Kavanaugh lied during his hearing. *Elle*. https://www.elle.com/culture/career-politics/a23545544/brett-kavanaugh-drinking-yearbook-yale-hearing/

Fisher, C. & Lowell, A. (2009). *Business ethics and values: Individual, corporate, and international perspectives.* London: FT Prentice Hall.

Fleming, P. & Zyglidopolous, S. C. (2008). The escalation of deception in organizations. *Journal of Business Ethics, 81*(4), 837-850.

Fradera, A. (2017). Using the truth to mislead (paltering) feels less bad than lying but will cost you in the long run, *Research Digest.* https://digest.bps.org.uk/2017/01/11/paltering-feels-less-bad-than-lying-but-will-cost-you-in-the-long-run/

Free Dictionary. (2019). *To tell the truth*. https://www.thefreedictionary.com/To+Tell+the+Truth

Gaspar, J. P., Methasani, R., & Schweitzer, M. (2019). Fifty shades of deception: Characteristics and consequences of lying in negotiations. *Academy of Management Perspectives, 33*(1), 62-81.

Gibbons, B., Fernando, M., & Spedding, T. (2016). Teaching and learning responsible decision-making in business - a qualitative research evaluation of a simulation-based approach. *Journal of Business Ethics Education, 13,* 293-324.

Grover, S. L. (2005). The truth, the whole truth, and nothing but the truth: the causes and management of workplace lying. *Academy of Management Executive, 19*(2), 148-157.

Grover, S. L. & Hui, C. (1994). The influence of role conflict and self-interest on lying in organizations. *Journal of Business Ethics, 13,* 295-303.

Grubin, D. (2005). Getting at the truth about pathological lying. *Journal of the American Academy of Psychiatry Law, 33,* 350-353.

Hilbert, M. (2011). Digital gender divide or technologically empowered women in developing countries? A typical case of lies, damned lies, and statistics. *Women's Studies International Forum, 34*(6), 479-489.

Hulpke, J. F. (2017). If all else fails, a corporate death penalty? *Journal of Management Inquiry, 26*(4), 433 - 439.

Hulpke, J. F. & Lau, C. (2015). Business ethics education: Warning, passion can be contagious. *Journal of Business Ethics Education, 12,* 125-158.

Hwang, B. & Kim, H. H. (2009). It pays to have friends. *Journal of Financial Economics, 93,* 138-158.

Hwang, B. & Kim, H. H. (2017). It pays to write well. *Journal of Financial Economics, 124*(2), 373-394.

Jackson, A. T., Simmons, M. J., Brummel, B. J., & Entringer, A. C. (2016). Appropriate training should turn ethical reasoning into ethical practice. *Journal of Business Ethics Education, 13,* 373-392.

Jacobs, D. C. (2004). A pragmatist approach to integrity in business. *Journal of Management Inquiry, 13*(3), 215-223.

Jenkins, S. & Delbridge, R. (2017). Trusted to deceive: A case study of 'strategic deception' and the normalization of lying at work. *Organization Studies, 38*(1), 53-76.

Jenkins, S. & Delbridge, R. (2020). Exploring organizational deception: Organizational contexts, social relations and types of lying. *Organization Theory, 1,* 1-24 [Online before print].

Jones, G. E. (1986). Lying and intentions. *Journal of Business Ethics, 5,* 347-349.

Kant, I. (1949). On a supposed right to lie from altruistic motives. In Beck, L. W., (Ed.), *Critique of practical reason and other writings in moral philosophy.* Chicago: University of Chicago Press.

Knight, E., & Tsoukas, H. (2019). When fiction trumps truth: What post-truth and alternative facts mean for management studies. *Organization Studies, 40*(2), 183-197.

Lackey, J. (2013). Lies and deception: An unhappy divorce. *Analysis, 73*(2), 236–248.

Lau, C. L. L. (2010). A step forward: Ethics education matters! *Journal of Business Ethics, 92,* 565–584.

Lau, C. L. L. & Yu, S. L. (2016). Online ethics debates: Try it once and... In Lau J. W. C. (Ed)., *Hong Kong Higher Education: The Way Forward.* Createspace Publishing, 51-100.

Lau, C. & Hulpke, J. (2018). Management faculty opening: Males preferred. In M. Gudić, T. K. Tan, & P. M. Flynn (Eds), *Redefining Success: Integrating the UN Global Compact into Management Education.* Greenleaf Publishing, 248-259.

Lau, C., Hulpke, J. F., Kelly, A., & To, M. (2007). Can ethical decision making be taught? The justice approach. *Social Responsibility Journal, 3*(2), 3-10.

Leavitt, K. & Sluss, D. M. (2015). Lying for who we are: An identity-based model of workplace dishonesty. *Academy of Management Review, 40*(4), 587-610.

Leonhardt, D., Philbrick, I. P., & Thompson, S. A. (2017). Trump's Lies vs. Obama's. *New York Times.* https://www.nytimes.com/interactive/2017/12/14/opinion/sunday/trump-lies-obama-who-is-worse.html

Levine, E. E. & Schweitzer, M. E. (2015). Prosocial lies: When deception breeds trust. *Organizational Behavior and Human Decision Processes, 126*(1), 88-106.

Loomis, C. J., Folpe, J., Woods, W., & Neering, P. (1999). Lies, damned lies, and managed earnings. *Fortune, 140*(3), 74-92.

Lundquist, T., Ellingsen, T., Gribbe, E., & Johannesson, M. (2009). The aversion to lying. *Journal of Economic Behavior Organization, 70,* 81-92.

Macmillan, M. (2000). Restoring Phineas Gage: A 150th retrospective. *Journal of the History of the Neurosciences, 9*(1), 46-66.

Martin, G. (2018). The meaning and origin of the expression: There are three kinds of lies: lies, damned lies, and statistics. *The Phrase Finder*. https://www.phrases.org.uk/meanings/lies-damned-lies-and-statistics.html

McAllister, D. (1997). The second face of trust: Reflections on the dark side of interpersonal trust in organizations. In R. J. Bies,, R. J. Lewicki & B. H. Sheppard, (Eds.), *Research on Negotiations in Organizations.* Stamford Connecticut: JAI Press, (pp. 87-111).

McCoy, C. S., (1983). The parable of the Sadhu. *Harvard Business Review, 61*(5), 103– 108.

McGranahan, C. (2017). An anthropology of lying: Trump and the political sociality of moral outrage. *American Ethnologist, 44*(2), 243–248.

Media Buster. (2018). *Christine Blasey Ford lies exposed at Kavanaugh US Senate hearing*. https://www.youtube.com/watch?v=D-CyAmW-Dgs

Monteleone, G.T., Phan, K.L., Nusbaum, H.C., Fitzgerald, D., Irick, J. S., Fienberg, S. E., & Cacioppo, J. T., (2008). Detection of deception using fMRI: Better than chance, but wellbelow perfection. *Social Neuroscience: Neural Correlates of Deception, 12/2009, 4*(6), 528-538.

Moosmayer, D. C., Niemand, T., & Siems, F. U. (2016). Ethical reasoning in business-to-business negotiations: Evidence from relationships in the chemical industry in Germany. *Business Ethics: A European Review, 35*(2), 128-143.

Morrison, L., Wilmshurst, T., & Shimeld, S. (2018). Environmental reporting through an ethical looking glass. *Journal of Business Ethics, 150*(4), 903–918.

Phan, K. L., Magalhaes, A., Ziemlewicz, T. J., Fitzgerald, D. A., Green, C., & Smith, W. (2005). Neural correlates of telling lies: a functional magnetic resonance imaging study at 4 tesla. *Academic Radiology, 12,* 164-172.

Piper, T., Gentile, M., & Daloz-Parks, S. (2007). *Can ethics be taught: Perspectives, challenges, and approaches at the Harvard Business School*. Boston: Harvard Business School.

Pruss, A. R. (2012). Sincerely Asserting What You Do Not Believe. *Australasian Journal Of Philosophy, 90*(3), 541-546.

Revoir, R. (2011). Exploring learning during a YouTube business ethics simulation. *Journal of Academic and Business Ethics, 8,* 113-128.

Rockness, H. & Rockness, J. (2005). Legislated ethics: From Enron to Sarbanes-Oxley, the impact on corporate America. *Journal of Business Ethics, 57,* 31-54.

Rogers, T., Zeckhauser, R., Gino, F., Norton, M. I., & Schweitzer, M. E. (2017). Artful paltering: The risks and rewards of using truthful statements to mislead others. *Journal of Personality and Social Psychology, 112(*3), 456-473.

Rudolph, J. (2018). A brief review of Mentimeter – A student response system. *Journal of Applied Learning and Teaching, 1*(1), 35-37.

Sandel, M. J. (2011). Justice: What's the right thing to do?. *Boston University Law Review, 91*(4), 1303-1310.

Seligmann, J. (1979). The game of lying?. *Newsweek*, 97.

Shapiro, S. (1987). The social control of interpersonal trust. *American Journal of Sociology, 93*(3), 623-658.

Shut Up and Sit Down web site, (2020). *Bluffing games*. https://www.shutupandsitdown.com/tag/bluffing-games/

Sims, R. (2000). The relationship between employee attitudes and conflicting expectations for lying behavior. *Journal of Psychology, 134*(6), 619-633.

Stone, M., Aravapoulou, E., Evans, G., Aldhaen, E., & Parnell, B. D. (2019). From information management to misinformation - The dark side of information management. *The Bottom Line, 32*(1), 47-70.

Takala, T., & Urpalainen, J. (1999). Managerial work and lying: a conceptual framework and an explorative case study. *Journal of Business Ethics, 20,* 181-195.

Vanderbilt, K. E., Liu, D., & Heyman, G. D. (2011). The development of distrust. *Child Development, 82*(5), 1372-1380.

Walls, J. L., & Bulmer, K. (2017). Emotional drivers of sustainability: Anger, contempt/disgust, and shame. *Academy of Management National Meeting Proceedings 2017*(1), 10408.

Wang, Z., Hsieh, T. S, & Sarkis, J. (2018). CSR performance and the readability of CSR reports: Too good to be true?. *Corporate Social Responsibility and Environmental Management, 25*(1), 66-79.

Weiss, B., & Feldman, R. S. (2006). Looking good and lying to do it: Deception as an impression management strategy in job interviews. *Journal of Applied Social Psychology, 36,* 1070 –1086.

Wertheim, E. G. (2016). The truth about lying: What should we teach about lying and deception in negotiations: An experiential approach. *Business Education Innovation Journal, 8*(2), 64-70.

Wines, W. A., Anderson, H. L., & Fronmueller, M. P. (1998). Accelerating moral development through use of experiential ethical dilemmas. *Developments in Business Simulation and Experiential Learning, 25*, 76-82.

Yang, Y. L., Raine, A., Lencz, T., & Bihrle, S. (2005). Prefrontal white matter in pathological liars. *The British Journal of Psychiatry, 187*(4), 320-325.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Slacking on: Lean practices in Applied Education

Kayla R. Waters[A]

[A] *Professor, Department of Family and Human Services, Washburn University*

Keywords

Applied learning;
community-based learning;
lean practices;
risk management.

Abstract

Applied educators experience both increased rewards and increased burden as a result of the inherent impact, complexities, and risks of executing applied and community-based learning projects. A "lean" approach to career management is recommended in order to ameliorate risk, optimize student and community outcomes, and sustain effective engagement over time.

Article Info

Received 9 September 2020
Received in revised form 31 October 2020
Accepted 2 November 2020
Available online 2 November 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.19

This work matters

Applied education matters. All education matters, of course, but applied education is especially important both because its lessons were deemed worthy of application in the first place, and because the act of application itself yields *mat(t) erial* impact.

While the term "applied learning" may traditionally have referred to specific professional fields of study (e.g. nursing, business, engineering), the applied descriptor has evolved to encompass any learning experience, in any discipline, that is designed to be implemented outside of the standard classroom setting in order to better prepare students to meet the broader needs of society (Schwartzman & Henry, 2009). For faculty, the implicit relevance of applied education generates a sense of both purpose and burden, necessitating skillful career management. It is assumed that the reader of this journal is aware of the considerable benefits of applied learning for students, faculty, and communities. Within this context, it is also sensible to conduct a clear-eyed review of the unique burdens of applied education, not to discourage engagement, but rather to motivate faculty to explore practices that support effective, sustained engagement over time.

If the work matters...

If the work matters, we work harder. The felt-sense of meaning inherent to applied education drives us to choose to work harder, and related pragmatics often leave us little choice at all. Logistically, applied learning projects often absorb excess time and energy, because when learning is applied, it is applied to our fast-changing world, requiring more flexibility and adaptability. Furthermore, faculty in applied disciplines may be credentialing students for certified or licensed professions, meaning that we expend resources answering (often at great length and in exquisite detail) to external accrediting bodies. Those of us in "gatekeeper" roles are honored with the complicated task of teaching and evaluating attributes far beyond the basic knowledge and skills of the discipline. We assess and remediate - occasionally even dismiss based on - deficits in traits like interpersonal skills and professional values. This is delicate work that demands enormous personal and professional faculty resources (SAMHSA, 2014). Finally, for any community-based applied learning project, faculty must be mindful of risks relating to institutional reputation, potential harm, and liability (Joyce & Ikeda, 2002).

Furthermore, these complications that are specific to *applied* projects are set against a backdrop of increasing workload demands across all of academia. For a successful career, faculty must navigate conflicting pressures from several directions. Universities place increasing weight on research performance indicators (Cadez, et al., 2017), while the scholarly community is raising serious concerns about a dysfunctional publication arena (Bauerlein et al, 2010; Rawat & Meena, 2014; Spellman, 2015; Waters, 2020). Student satisfaction data can make or break a career, despite significant vulnerability to bias (Basow & Martin, 2012). The educational system as a whole is attempting to respond to a wider range of stakeholders, many of whom expect objective evidence of accountability, (Bentley & Kyvik, 2012; Sfakianaki & Kakouris, 2019; Schwartzman & Henry, 2009), which leads to increased administrivia at all levels.

Ultimately, many faculty in applied education - while reaping great rewards in terms of student outcomes, community betterment, and professional fulfillment - are operating at, or above, capacity (Kerrigan, 2015). Something has to give. Some things are already giving. Many feel the strain on health, hobbies, and personal relationships (Burghardt & Tolliver, 2010; Waters & Frank, 2016a).

If the work matters, then *so do you*

Ironically, the very reasons we work too hard are precisely the reasons that it is frankly unacceptable for us to do so. Burghardt and Tolliver (2010), educators in the applied field of human services, remind us that "If the work is sacred, then so are you," (p. 163). While the word "sacred" may carry too much (or too little) meaning for some readers, the underlying message is applicable for all applied educators. There is a continuum of risk in applied education, but across disciplines it is imperative that we are careful, sharp, and energetic in order to reduce risks and respond nimbly when the unexpected arises, as it inevitably does (Joyce & Ikeda, 2002). It is *because* our work matters, that we work too hard. And it is because our work matters that we mustn't work too hard. We have an ethical obligation to maintain barriers, balance, and bandwidth. Doing so requires "slack-time," or intervals of time that are not pre-assigned to any specific task (Mullainathan, 2014).

When work stops working

If you have plenty of time to meet all your obligations, then this article is not for you. But, you might as well read it anyway, since you have plenty of time. For the rest of us, scarcity of resources (e.g. time, energy, funding, passion, empathy, creativity, civility) is threatening our ability to perform our best (Burghardt & Tolliver, 2010; Kerrigan, 2015; Mullainathan, 2014). Our sense of purpose, embedded in a culture of overwork, can compel us to schedule every moment and then some, morally in dread of wasting a single second (Cohen, 2018; Mullainathan, 2014). But one of the hallmarks of applied education is that things often don't go according to plan. Unexpected diversions offer rich learning opportunities, but only if we have the slack-time to capitalize on them. Otherwise, they yield dejection, disenchantment, risk, and harm.

Without some slack built into our schedules, we eventually find ourselves caught in the "fire-fighting trap" (Mullinathan, 2014), moving from one urgent problem to another, with no time to address non-urgent, but important tasks. Our efficiency degrades over time, which creates more fires to put out. Important life-tasks are short-shifted as well; without adequate sleep, exercise, nutrition, affection, and play, our energetic bandwidth also degrades, leading to a further reduction in capacity. We pass the point of diminishing returns, and frenetically hold the pace until we

reach a point of lost productivity and outright harm (Cohen, 2018; Drucker, 2006; Mullinathan, 2014). The entire system - the workplace and ourselves within it - glugs up and our students and communities suffer.

Yet we wear our over-busyness like a badge of honor. Josh Cohen (2018), a psychologist, notes that "It's culturally acceptable to complain aloud about how busy and tired we are, as though in doing so we reassure the world that we fully acknowledge our moral and social obligation to work and contribute" (p. xxxiii). In many academic environments it is not just culturally "acceptable", but rather culturally imperative to be too busy, all the time, out loud.

Do first things first…

There is a robust literature from the business and non-profit management sector designed to improve performance by reducing over-busyness. The recommended approaches will be referred to in this paper under the term "lean practices." Peter F. Drucker (2006; 2008), a prolific writer and management consultant, used the word "lean" to signify deliberate, mission-based decision making. By now, most of us are probably pretty familiar with time management strategies that help us "fit it all in" (Jonat, 2014). In contrast, the lean approach encourages us to stop fitting it all in - to "do first things first and do second things not at all" (Drucker, 2006, p. 24).

Cultivating lean practices

The lean approach teaches us to *eliminate most tasks* from our to-do list, or at least do some things poorly, on purpose. This difference makes lean practices distinct, requiring the deliberate suppression of functioning (on carefully selected tasks) in order to create the necessary slack to treat top priorities with the respect they deserve. The Lean Six Sigma approach to organizational improvement (Frank, 2012; George et al., 2004; Price et al., 2011) provides a guide, the "Hierarchy of Value", for helping make the relevant decisions intelligently:

Lean Hierarchy of Value:

Keep:	Value-added activities
Minimize:	Non-value added, but necessary activities
Eliminate:	Non-value added activities that are not necessary

The lean approach is accessible to anyone, regardless of management training or experience (Frank, 2012), but it's entirely possible that the average educator, having achieved the honors and accomplishments required to secure an academic career, will find the lean approach counterintuitive. *Purposefully poorer performance* simply might not be in the current skillset. Thus, a practical analysis of the logical processes entailed is offered for each category of the rubric:

Eliminating tasks: every moment matters

Elimination of tasks from the to-do list is what makes the lean approach unique and uniquely effective. The basic instruction is to just stop doing any task that is neither value-added nor necessary. In practice, the determination of value and necessity is challenging. To develop an effective lean approach, we must not ask ourselves two seemingly sensible questions:

First, we should not ask if a task has value. Of course the task has value… but the list of tasks with some value for our students is literally infinite. We eliminate nothing with this mindset. Instead, ask: is this task more valuable than other things that we could be spending the time and energy on? Is this is one of the core tasks around which a career should orbit? (Drucker, & Hesselbein, 2008; George et al., 2004).

Second, we should *not* ask if a task is quick. There is no amount of time too small to put to good use (Waters & Frank, 2016b). Every task, no matter how brief, is worth evaluating. In fact, in the early stages of cultivating a lean mindset, we may occasionally spend more time scrutinizing the value of a task than it would have taken to just do the task. But through the process, we build a capacity for discernment that will ultimately improve performance. In the long run, a series of saved minutes will yield hours of meaningful time we can pour into core tasks.

Minimizing tasks: purposefully poorer performance

Once we've identified a task that is not valuable enough to be a top priority, we can hopefully just stop doing it. Unfortunately, low-value tasks are sometimes required. If a task is required in order for you to keep your job at the institution, or for the institution to stay in business, then it is considered "necessary" no matter how off-mission or low-value it might be (Frank, 2012). Fortunately, many of these tasks fall into the domain of administrative duties, which tend to be amenable to lean thinking (Sfakianaki & Kakouris, 2019). Within the lean framework, necessary-but-low-value tasks are to be *minimized*. Minimization means that we deliberately suppress functioning to a good-enough standard. "Good enough" is not based on our sense of perfectionism or scholarly identity. It is just the minimal level necessary to meet requirements. Defining "good enough" requires professional discretion, but will usually involve a consideration of basic safety, ethical, and institutional requirements. It's tempting to layer ego-aspirations on top of minimal requirements, leading to overperformance with little payoff. Unfortunately, overperformance on a low-value task means underperformance on the overall mission (Drucker, 2006; George et al., 2004; Price et al., 2011).

The ancient Roman Stoic philosophers recognized the definitive preciousness of time, as well as the human frailties that lead us to waste it frivolously. They identified particularly insidious time-wasters, including the pursuit of fame and fortune (Irving, 2008). The average educator may feel confident in having clearly resisted the lures of fame and fortune, given that there is very little of either to be found in academia. However, when the Stoics talked about

"fame" they didn't just refer to celebrity, but also the basic recognition and regard of peers and colleagues. How many tasks serve the primary purpose (beyond what is required to maintain employment) of impressing colleagues or even just satisfying the inner critic? We like to think that all the things we do are vitally important (they aren't), especially when they serve to bolster our own egos. Marcus Aurelius, second century Stoic philosopher and Roman emperor (one of the few who is remembered for having great integrity [Birley, 1993]), cautioned that "Vanity is the greatest seducer of reason: When you are most convinced that your work is important, that is when you are most under its spell," (Aurelius, 1992). The deep compulsion to impress others is natural, but not always benign (Irving, 2008). Resources wasted on tasks that bolster status or ego, but yield little value for students or communities, are essentially stolen from the greater mission (Waters & Frank, 2016b). And, "one cannot buy, rent or hire more time… No matter how high the demand, the supply will not go up," (Drucker, 2006, p. 26). For the applied educator, who needs slack-time in order to optimize student and community outcomes, the only option is to reduce demand by deliberately eliminating and minimizing tasks.

When minimizing one task, it is useful to also identify a specific high-value task we want to promote with the conserved time, and mentally project the anticipated positive outcomes for students and community. It is also useful to identify cases where inadequate bandwidth is *already* forcing poorer performance on high-value tasks. The lean approach allows us to choose which tasks to suppress, allowing us to achieve excellence where it really matters. Finally, faculty in leadership positions should explore options at the institutional level for eliminating these minimized tasks in the future; some are truly indispensable, but others are only "necessary" because of misguided or outdated policies and practices.

High-value tasks: slacking on

Over time, as we eliminate and minimize low-value tasks, we find ourselves with extra resources to invest in substantive advancements for our students and communities. The higher proportion of our work-time we can devote to these tasks, the greater our sense of professional purpose, which in turn increases energetic bandwidth (Burghardt & Tolliver, 2010). We can capitalize on this virtuous cycle in several ways:

Scheduled slack-time. We may be inclined to immediately assign any spare moment to a new task, assuming that unscheduled time is unused time (Mullainathan, 2014). However, the applied educator in particular may find that unscheduled time assigns itself to responding optimally to unplanned diversions. In the event that nothing comes along to fill our time, we find that our new lean mindset naturally inclines us to make good, valuable use of any idle moments, though this may be hard to believe if you are currently exhausted by overwork (Cohen, 2018).

Continuous improvement. As our lean mindset matures, we can examine each and every task with the assumption that there might be a faster, easier way of accomplishing the same outcomes with *equal or greater success* (Frank, 2012; George et al., 2004; Price et al., 2011). An inspiring example was described by a group of eight early-career faculty who formed a learning community with the goal of minimizing their teaching tasks in order to protect time for research (Hershberger et al., 2009). After a year of collaborative effort they found that they were indeed spending less time on teaching and more time on research, but they also found that each had *actually improved* their teaching practices in the process. Spending more time on something doesn't always lead to better performance, and vice versa (Pink, 2002).

Fundamental to the philosophy of applied learning is the belief that active student engagement leads to improved outcomes (Svinicki & McKeachie, 2011). The shifting of activity to the student automatically shifts activity from faculty… our task is to figure out how to avoid overfilling the resulting space with unnecessary, low-value minutia. At first, it can feel like "cheating" to look for faster, easier strategies. However, over time, the improvements in mission-based focus should enhance overall productivity. "What matters is what you accomplish" (Pink, 2002, Chapter 6, para. 12) not the amount of time you poured into it.

Transition periods. Implementing lean practices may require short-term investments to yield long-term gains. Sometimes a transition period is necessary, during which performance is sacrificed even on *high-value tasks* in order to achieve better overall outcomes. A simple example would be a multifaceted community-based project that yields excellent outcomes for students, but isn't specifically required by any accrediting body. These types of projects are enormously worthwhile, but can absorb enormous faculty resources (Kerrigan, 2015). A lean analysis would likely reveal several ways that the project can be revised, streamlined, templated, and automated to *eventually reduce strain* (Price et al., 2011), but making these changes can be labor-intensive. The instinct might be to forgo project improvement because it is too time-consuming, or to shortchange bandwidth by eschewing sleep, hobbies, exercise, etc. Both these options would result in decreased efficiency over time (Mullainathan, 2014). The lean approach offers a third option: to instate a time-limited transition period where one knowingly *pauses* high-value tasks in order to improve processes (Frank, 2012). For example, the community-based project in question could simply be skipped for a year with the resulting slack time allocated for project improvement. Poorer student outcomes during that one year would ultimately be overbalanced by long-term gains. Sometimes even *required* tasks can be paused for a transition period, as in the example presented by Waters and Frank (2016a), when an academic department secured permission from administration to suspend collection of mandated program assessment data in order to improve the assessment plan, measures, and processes. The result of collecting no data for a few years was the ability to collect better data, and devote more time to using it wisely, *for the foreseeable future*.

Slack-time or slacking off?

Of course some caution is needed to avoid inadvertently eliminating necessary or high-value tasks, and it is recommended that we initially practice on low-risk tasks that are not directly tied to ethical or institutional requirements. However, the actual implementation of lean practices generally isn't as perilous as it initially feels, for the simple reason that the universe will provide natural feedback if we make a wrong choice (Drucker, 2006). If we eliminate a task that is necessary or valuable, then by definition, there will be consequences to let us know. Furthermore, any mistakes are more easily absorbed and ameliorated precisely because lean practices free up some slack time for addressing problems.

More hazardous than implementing lean practices is *communicating* about lean practices. Post-work philosopher Josh Cohen (2018) cautions that, "resentment and envy are aroused by the thought that someone may not feel bound by the imperative to keep going at all costs" (p. xvi). Our colleagues can easily mistake our quest for slack-time as evidence that we are "slacking off."

Careful communication about lean practices can avert misunderstandings, and help maintain our focus (Jonat, 2014). The distinctive *action* of the lean approach is the minimization and elimination of tasks, but one must never talk about these acts in isolation. Proposals to minimize or eliminate must always be embedded in an explicit *articulation* of the primary objective, which is to re-allocate conserved resources towards high-value tasks that will yield better outcomes for students and communities. Dropping a task looks lazy. Re-aligning resources to better meet the mission looks like leadership.

Irving (2008) offers some relevant advice gleaned from Stoic philosophy: we should choose our associates very carefully. Some colleagues will be absolutely entrenched in the pervading socio-cultural-political belief that overworking is a *moral* nonnegotiable (Cohen, 2018). For them, signs of deteriorating bandwidth (e.g. energy depletion, health concerns, incivility) are perceived as gold stars of superior work ethic. They may not be receptive to lean-language at all. Others may respect the lean approach only to the extent that it is wielded for the direct, immediate, observable purpose of maximal efficiency on the job (Cohen, 2018). These associates may appreciate proposals that explicitly specify exactly how any conserved resources will be allocated. Finally, over time, we also hope to identify some colleagues who can trust in the value of cultivating true slack-time - for responding to crises, optimizing high-value endeavors, and nurturing energetic bandwidth - *even when the positive impact is indirect or delayed.*

Sometimes it makes the most sense to just operate quietly within our own spheres of influence (Drucker, 2006; Jonat, 2014), especially in the initial stages of cultivating lean skills and particularly if we work in a "time-stupid" (Pink, 2002) organization that is hostile to any hint that overworking isn't working as well as we want it to. Over time, we can take advantage of our lean-enhanced performance to support more public endeavors.

Applied learning of lean practices

As applied educators know, the best way to deepen our understanding of a topic is through application and practice (Svinicki & McKeachie, 2011). The lean literature offers several practical suggestions for getting started.

Mission matters

Understanding one's mission is essential to discerning value (Drucker & Hesselbein, 2008; Price et al., 2011). "Mission drift" (expending resources on non-mission specific objectives) can lead us to over-value too wide of a range of tasks, until overall performance suffers (Price et al., 2011). Our students are humans, and there are literally limitless ways to enrich the human experience. But we can't do them all; we can't even do more than a bare few of them well. Drucker (2006) suggests that an effective mission statement should be meaningful, but concise enough to look good on a t-shirt. In contrast, academicians aren't generally known for our concision and faculty often operate under multiple mission statements (university, discipline, profession). We may have to use some intelligent discretion to determine what our mission actually is. The recommendation is to distill the most core concepts out of institutional mission statements and then add in our (presumed) preference for not losing our jobs. However, defining our mission helps us determine task value only to the extent that we combine it with the lean Hierarchy of Value. For example, is advising an extracurricular student group enriching for the students? Certainly! Is it consistent with the mission statement? Probably. Is it a *core requirement*, necessary for meeting the mission and more valuable than other tasks? Maybe. Emotionally it probably feels like a high-value task, logically it might make sense to strategically minimize. *These distinctions must be made by discerning professionals in context.*

You matter

You "matter" in at least two ways. First, in the physical sense of the word, you have mass and energy that can be applied to effect change. It's easy to adopt a stance of helplessness, feeling like outside influences dictate every task on your list (Drucker, 2008; Jonat, 2014). But there is always *something* you can change… some tiny task you can minimize or eliminate. Find one task, and apply the lean principles. Do that again. Accumulated slack-time will make it easier to repeat the process over time.

Second, in the emotional sense of the word, your human experience matters. Whatever positive impact you aspire to as an applied educator, you are a part of the universe(s) that you hope to improve. Your life, health, relationships, energy, and wellbeing are worthy of nurturing in their own right. Phrases like "purposely poorer performance" and "good-enough" may inadvertently give the impression of apathy or laziness, so remind yourself frequently of your higher aspirations… don't forget that you make lean decisions *in service of higher overall quality in all you do*. By cultivating slack-time and bandwidth, the use of lean practices can help you improve your career performance and your life

experience within it (Burghardt & Tolliver, 2010; Pink, 2002).

References

Aurelius, M. (1992). *Meditations*. London: Everyman's Library.

Basow, S. A., & Martin, J. L. (2012). Bias in student evaluations. In M. E. Kite (Ed.), *Effective evaluation of teaching: A guide for faculty and administrators* (p. 40–49). Society for the Teaching of Psychology. https://pdfs.semanticscholar.org/502e/dc874dcb9e2a0e5b438f0d2aceba93a44663.pdf

Bauerlien, M., Gad-el-Hak, M., Grody, W., McKelvey, B., & Trimble, S. W. (2010, June 13). We must stop the avalanche of low-quality research. *The Chronicle of Higher Education*. https://www.chronicle.com/article/We-Must-Stop-the-Avalanche-of/65890

Bentley, P. J. & Kyvik, S. (2012). Academic work from a comparative perspective: a survey of faculty working time across 13 countries. *Higher Education, 63*, 529-547. https://doi.org/10.1007/s10734-011-9457-4

Birley, A. R. (1993). *Marcus Aurelius: A biography*, (2nd Ed). London: Routledge.

Burghardt, S., & Tolliver, W. (2010). *Stories of transformative leadership in the human services: Why the glass is always full*. Los Angeles: Sage.

Cadez, S., Dimovski, V., & Groff, M. Z. (2017). Research, teaching and performance evaluation in academia: The salience of quality. *Studies in Higher Education, 42*(8), 1455-1473. https://doi.org/10.1080/03075079.2015.1104659

Cohen, J. (2018). *Not working: Why we have to stop*. London: Granata.

Drucker, P. F. (2006). *The effective executive: The definitive guide to getting the right things done*. New York: Harper Business.

Drucker, P. F. (2008). *Manage oneself*. Cambridge: Harvard Business Review Classics.

Drucker, P. F., & Hesselbein, F. (2008). *The five most important questions you will ever ask about your organization*. San Francisco: Jossey-Boss.

Frank, Z. (2012, April). *Use of lean principles in a rehabilitation setting: suggestions for implementation*. Presented at the Washburn University School of Applied Studies Proseminar, Topeka, Kansas.

George, M., Rowlands, D., & Kastle, B. (2004). *What is lean six sigma?* New York: McGraw-Hill.

Hershberger, A., Spence, M., Cesarini, P., Mara, A., Jorissen, K. T., Albrecht, D…Lin, C. (2009). The ripple effect: Lessons from a research and teaching faculty learning community. *Journal on Excellence in College Teaching, 20*(3), 145-173.

Irving, W. B. (2008). *A guide to the good life: The ancient art of Stoic joy*. Oxford University Press.

Jonat, R. (2014). *Do less: A minimalist guide to a simplified, organized, and happy life*. Avon, MA Adams Media.

Joyce, S. A., & Ikeda, E. K. (2002). Serving safely: A risk management resource for college service programs. *Guides, 39*. https://digitalcommons.unomaha.edu/slceguides/39/?utm_source=digitalcommons.unomaha.edu%2Fslceguides%2F39&utm_medium=PDF&utm_campaign=PDFCoverPages

Kerrigan, S. M. (2015). Sustaining change: Success, challenges, and lessons learned from twenty years of empowering students through community based learning capstones. *Metropolitan Universities Journal, 26*(3), 11-32. https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1010&context=studies_fac

Mullainathan, S. (2014). *Managing scarcity in organizations. scarcity: The new science of having less and how it defines our lives*. London: Picador.

Pink, D. H. (2002). *Free agent nation: How Americans new independent workers are transforming the way we live* [Kindle]. New York: Business Plus. https://www.amazon.com/Free-Agent-Nation-Independent-Transforming/dp/B00FKYJS0Y

Price, M., Mores, W., & Elliotte, H. M. (2011). *Building high performance government through lean six sigma*. New York: McGraw-Hill.

Rawat, S., & Meena, S. (2014) Publish or perish: Where are we heading? *Journal of Research in Medical Sciences, 19*(2),87–89. https://doi.org/10.7326/0003-4819-158-3-201302050-00590

Schwartzman, R., & Henry, K. B. (2009). From celebration to critical investigation: Charting the course of scholarship in applied learning. *Journal of Applied Learning in Higher Education, 1*, 3-23. https://www.missouriwestern.edu/appliedlearning/wp-content/uploads/sites/116/2018/11/JALHE-1.pdf#:~:text=Journal%20of%20Applied%20Learning%20in%20Higher%20Education%20Co-Editors%3A,Bringle%2C%20Ph.D.%2C%20Indiana%20University%20-%20Purdue%20University%20Indianapolis

Sfakianaki, E. & Kakouris, A. (2019). Lean thinking for education: development and validation of an instrument. *International Journal of Quality and Reliability Management, 36*(6), 917-950. https://doi.org/10.1108/IJQRM-07-2018-0202

Spellman, B. A. (2015). A short (personal) future history of revolution 2.0. *Perspectives on Psychological Science, 10(*6), 886–889. https://doi.org/10.1177/1745691615609918

Substance Abuse and Mental Health Services Administration (SAMHSA; 2014). *Clinical supervision and professional development of the substance abuse counselor: Treatment improvement protocol series 52*. United States Department of Health and Human Services.

Svinicki, M., & McKeachie, W. J. (2011). Active learning: Group-based learning. In M. Svinicki & W. J. McKeachie, (Eds.), *McKeachie's Teaching Tips: Strategies, Research, and Theory for College and University Teachers,* (13th ed). Belmont, CA: Wadsworth.

Waters, K. (2020, April 20). Bowing out gracefully: Why teaching institutions should eliminate publication requirements. *Academic Leader*. https://www.academic-leader.com/topics/promotion-tenure/bowing-out-gracefully-why-teaching-institutions-should-eliminate-publication-requirements/

Waters, K., & Frank, Z. (2016a). Putting assessment in its place. *Academic Leader, 32*(7), 2,6. https://www.academicbriefing.com/administration/putting-assessment-place/

Waters, K. & Frank, Z. (2016b, April). *Putting academic program assessment in its place*. Paper presented at the annual convention of the Midwest Organization for Human Services, Fort Wayne, IN.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Supporting students in developing critical global citizenship: examples from the English for Academic Purposes (EAP) classrooms

Kyriaki Koukouraki[A]

[A] *Lecturer, King's College London*

Keywords

Critical global citizenship;
critical thinking;
EAP;
global citizenship;
globalisation;
higher education;
intercultural competence;
internationalisation;
neoliberalism.

Article Info

Received 12 October 2020
Received in revised form 23 November 2020
Accepted 27 November 2020
Available online 27 November 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.16

Abstract

As globalisation is progressively expanding in the fields of economy, politics, society and culture, so too is internationalisation in the sector of higher education (HE). This fact had instigated around the turn of the millennium an increasing interest in the concept of global citizenship also mirrored in the changes of educational strategies in HE. The number of HEIs that include, either in their mission statements the aspiration of developing global citizens, or explicitly embed global citizenship education into their curriculum has risen exponentially. However, because of the lack of a unanimous definition of global citizenship amongst scholars, there is much confusion about what this term entails or should entail. The most pertinent interpretation of global citizenship related to HE is that of the neoliberal approach which has received much critique mainly due to it perpetuating a Western/English-speaking hegemony or supremacy over the rest of the world and its lack of a justice-oriented approach. In agreement with scholars that urge for a critical approach to global citizenship as to counteract to the neoliberal approach, this conceptual paper will propose some practical examples of how critical global citizenship within HE could be fostered by focusing on the aspects of critical thinking and intercultural competence, drawing from the experience within the English for Academic Purposes classroom.

1. Introduction

In an increasingly internationalised higher education (HE) environment, due to greater student and teacher mobility, fostering global citizenship seems to have become a conditio sine qua non with numerous higher education institutions (HEI) including this idea in their mission statements. This trend emerged in the late 1990s, especially in English-speaking countries with the US as vanguard (Schattle, 2009). According to Warwick and Moogan (2013; in Clarke, Yang, & Harmon, 2018, p. 15), internationalisation has 'the capacity to enhance the learning environment for all students, deliver an internationalised curriculum and prepare students for future roles in a global economy and as global citizens'.

The concept of citizenship, though, has not only evolved over time but recently has expanded beyond the fields of politics and history 'into the educational discourse, acknowledging the importance of citizenship for the development of healthy societies' (Diaz, 2017, p. 156). Although the terms 'citizen of the world' and 'global citizen' or 'cosmopolitan' are often used interchangeably, or even in combination as in 'cosmopolitan type of global citizenship' (Oxley & Morris, 2013), strictly speaking they are not synonyms. In like manner, as the term citizenship has evolved, so have the terms world citizen, global citizen or cosmopolitan (O'Byrne, 2003) with no current consensus amongst scholars regarding the definition of the above mentioned terms and in particular the term global citizen which is of the main interest in this article.

Overwhelmingly, the literature analysing this issue primarily focuses on theoretical conversations around the nature of global citizenship and its link to HE or on how study abroad programmes foster global citizenship ('travelling education' (Oxley & Morris, 2013)). However, there is a relative dearth of research on more practical examples of how global citizenship can actually be fostered or taught at university level. In recent years, global citizenship education (GCE) has received much support and specific guidelines from international or intergovernmental organisations such as the OECD (2018) and the UNESCO (2015, 2018) for primary and secondary education. This includes helpful instructions to support teachers in incorporating GCE in their curriculum. However, there is no such guidance for HE teaching professionals, possibly due to the autonomy of HE institutions in many countries around the world.

This article aims to shed some light on how and why global citizenship is being embedded into the HE curriculum. It explains why the author adopts the critical global citizenship approach and how this can be translated into practical teaching activities in order to support students to develop critical global citizenship during their studies. The research is drawing insights from the subject of English for Academic Purposes.

2. Global citizenship

'Essentially contested concepts', such as citizenship, cannot 'ever succumb[s]-as most scientific theories eventually do-to a definite or judicial knock-out' (Gallie, 1956, p. 179). Much more so, when trying to define the broad term of global citizenship (Horey et al., 2018). As O'Byrne (2003, p. 2) states, 'citizenship is a form of belonging' mainly associated with a nation-state 'but it is a specific form of belonging, reliant upon certain rights and duties which betray its contractarian assumptions' even if the 'contract is not mentioned explicitly'. Therefore, the term global citizenship appears as a contradiction to the aforementioned concept of citizenship. This tension is especially visible in a possible leftist approach, which views global citizenship as 'undermining governments' (Rhoads, 2013) . Or as Lo (2013) and Xing (2013) explain particularly between the concept of Chinese citizenship and global citizenship, although this view is not shared by all scholars (Xiao, 2013). Nonetheless, global citizenship should be perceived as a complementary dimension to national or local citizenship and not as an antagonistic one (O'Byrne, 2003, p. x).

Global citizenship can be defined and interpreted in a multitude of ways depending on the political, economic or philosophical approach of the scholars engaging with this abstract concept (e.g. Hunter et al., 2006; O'Byrne, 2003; Oxley & Morris, 2013; Pais & Costa, 2020; Peach & Clare, 2017; Perry et al., 2016). Yet it is worth briefly looking at those different approaches while simultaneously trying to establish the link to the near-synonymous term of cosmopolitanism used from antiquity to the present day.

The idea of a citizen of the world is not new but actually rooted in antiquity and more specifically in Ancient Greece. Although one century before the idea of cosmopolitanism emerged there, Confucius tried to teach a similar concept in China: the concept of Great Unity (大同 - dàtóng), i.e. 'the world commonwealth in which all men once strove for general welfare and harmony and which, he urged, should be restored' (Heater, 2004, p. 9). The term 'cosmopolitan' derives from the Greek words 'cosmos' (world, universe) and 'polites' (citizen). In Athens, Socrates (470-399 BCE) was one of the first to have claimed to be a citizen of the world instead of identifying himself as an Athenian or a Greek ('οὐκ Ἀθηναῖος οὐδ᾽ Ἕλλην ἀλλὰ κόσμιος') (Plutarch, 1878). Similarly, Diogenes the Cynic (412 or 404-323 BCE) and later the Stoics developed the idea of cosmopolitanism opposing 'the traditional (Greek) distinction between Greeks and barbarians [and] by applying to themselves the term cosmopolitans […]' (Brock, 2015). This means that they did not affiliate themselves with a particular city-state, polis, but as being part of the whole world. During the Enlightenment in the 17th century, the German philosopher Immanuel Kant (1724-1804) stressed the importance of world citizenship and freedom of movement which would ultimately lead to making the national movements obsolete. This approach is encapsulated in his cosmopolitan law (Weltbürgerrecht), suggesting a third sphere of public law, additional to constitutional and international law, where 'both states and individuals have rights, and where individuals have these rights as "citizens of the earth" (Erdbürger) rather than as citizens of particular states' (Kleingeld & Brown, 2014). It is worth mentioning that cosmopolitanism bears mostly a positive connotation referring to the universal community of world citizens whereas there are a few versions 'in which it serves primarily as a ground for denying the existence of special obligations to local forms of political organisations.'

(Kleingeld & Brown, 2014).

Moving away from the term cosmopolitanism, which is still being used today (e.g. see Appiah, 2006; Camicia & Franklin, 2011) and towards global citizenship being directly linked to current trends of globalisation (O'Byrne, 2003), the above mentioned difficulties of defining this abstract 'multidimensional and pluralistic' concept (Peach & Clare, 2017, p. 47) become once again apparent and entail numerous distinct categorisations (Oxley & Morris, 2013). Moreover, it is important to keep in mind that the overwhelming majority of the respective literature and proposed definitions derive from English-speaking (Western) countries (Pais & Costa, 2020). UNESCO, for example, as one of the two major international organisations promoting global citizenship education (the other being the OECD), defines global citizenship as follows: 'Global citizenship refers to a sense of belonging to a broader community and common humanity. It emphasises political, economic, social and cultural interdependency and interconnectedness between the local, the national and the global.' (2015, p. 14). Albeit providing an initial understanding of GC, a deeper examination of it is required. For the purpose of this analysis linked to HE, we will first look at one possible categorisation of GC as suggested by Shultz (2007) based on McGrew's (2000) three approaches to globalisation. This is relevant because this terminology is widely used in the respective literature and then we will expand this to critical global citizenship:

a) Neoliberal Global Citizen: within this approach, the primary goal is to 'increase transnational mobility of knowledge and skills' by 'building liberal relationships across the globe' (Shultz, 2007, p. 252). Schulz describes 'the role of the individual as an entrepreneur in the private sector' as 'a privileged position' (p. 250) which is very much in accordance with a clearly business-oriented definition perceiving the global citizen as global leaders.

b) Radical Global Citizen: contrary to the neoliberal citizen, the radical global citizen is 'challenged to build solidarity through breaking down [the] global structures of oppression' (Shultz, 2007, p. 253) and to be in national solidarity with the oppressed and weak.

c) Transformationalist Global Citizen: from this perspective 'globalization is viewed as more than a new form of imperialism or just a path to a single global market economy'. Thus a transformationalist global citizen 'understands his/her role as one of building relationships through embracing diversity and finding a shared purpose across national boundaries' (Shultz, 2007, pp. 254-255).

3. Global citizenship in HE

With the growing trend of internationalisation at universities and, or because of, the increasing interconnectedness through technology, businesses and the economy, universities particularly in the English-speaking countries have been progressively including the concept of global citizenship into their agenda since the late 1990s and early 2000s (Gacel-Ávila, 2005; Hunter et al., 2006). It has lately also spread to many universities in other countries. In Asia for example, universities have embedded the idea of developing global citizens in various ways: from simply stating this in their mission statements to specific modules, study abroad programmes, certificates, or even degrees (Aktas et al., 2017; Green, 2012).

The questions that arise at this point are the following: Why do universities wish to develop global citizens? What type of global citizens are universities trying to develop? How can teaching professionals in HE foster the development of global citizens if this has not been explicitly incorporated in the curriculum or the syllabus?

3.1. The importance of GC in HE

Analysing the relevant literature, three main reasons for promoting global citizenship in HE emerge: 1. the current global political, environmental and societal situation, 2. the role and responsibility of universities in educating for citizenship, and 3. students' employability.

UNESCO (2018, p. 3) delineates the current situation in the world as being one characterised by mass migration with around one quarter of a billion people being displaced. There are multiple hearths of 'prejudice, ethnocentrism, racism, xenophobia, nationalism, discrimination and violence' which can decisively be overcome through 'social cohesion, mutual respect and tolerance of difference'. Hence, in order to solve transnational challenges such as (forced) migration, climate change, malnutrition and obesity, gender equality, global citizens are needed as no one country alone can manage these global problems. These global citizens are people who:

- Understand the complexity of today's interconnected world
- Know their social, ethical and political responsibilities
- Solve problems through innovation and entrepreneurship
- Overcome barriers of exclusion
- Realise or re-evaluate their positionality within the global context

In other words, as Caruana (2014, p. 90) elucidates, it is 'about being proactive, being capable of making change happen and living ethically in both the global and the local, the distant and the proximate simultaneously'. That is to say on three levels: the local, the national and the global. Eventually it requires people to be able to see the whole picture beyond

the confinement of their hometowns or states and consider the longer term implications. Consequently, if it is assumed that one is not born a "good" citizen. Becoming one involves acquiring these behaviours and capabilities through learning (Galston, 2001; in Tarrant, 2010, p. 442). The role of education in general becomes evident and is being mirrored in the most recent endeavours of the UNESCO (2015; 2018) the OECD (2018) and Oxfam (2015) to explicitly include Global Citizen Education and respectively Global Competence in schools' curricula worldwide.

The second reason for actively promoting GC within HE stems from its responsibility as proclaimed in 1998 by UNESCO in the World Declaration on Higher Education for the Twenty-First Century: Vision and Action. There it is clearly declared that the core mission of HE should expand beyond its contributing to the 'sustainable development and improvement of society as a whole' and 'educate for citizenship and for active participation in society, with a worldwide vision [...]' (UNESCO, 1998, p. 4).

The third reason for promoting global citizenship in HE stems from the globalised job market's demand for future employees. This is especially so for managerial positions where people should be equipped with greater international knowledge, thus becoming globally competent and successfully facing the global marketplace (Aktas et al., 2017; Gacel-Ávila, 2005; Horey et al., 2018; Hunter et al., 2006; Tarrant, 2010; Perry, et al., 2016).

Consequently, HEI have an obligation to foster "global citizens", either as a consequence of their educational mission reacting to the changing global environment, which in Shultz's (2013) opinion is an additional strong PR and branding tool for universities, or in strengthening the employability of their graduates.

3.2. The case for Critical Global Citizenship

A deeper analysis of this seems to reveal that HEI aim primarily at developing global citizens who adhere to the neoliberal approach and fail to create larger/global identities because of the extreme specialisation in their curricula, ultimately only aiming at serving the job market. Such criticism is widespread amongst scholars investigating this topic even describing the current situation in education as subject to 'neoliberal hegemony' (Pais & Costa, 2020, p. 11) that is predominantly market-oriented and heavily influenced by corporate views (Camicia & Franklin, 2011) and the commodification of HE. Evidently, within the discourse of global citizenship, there appears to be a tension between ideal global citizenship, underpinned by ethical and moral responsibility (e.g. such as outlined by the UNESCO), and capitalism (Peach & Clare, 2017) or the actual implementation of the concept as this will be 'implemented in and by people immersed in the dynamics of capitalist economics' (Pais & Costa, 2020, p. 3). Other criticism of the neoliberal approach of global citizenship, as it is taught and fostered within HE, focuses on the aspect that it is mono-directional, i.e. from Western/ English-speaking countries to non-Western countries, from the North to the South or from the developed to the developing countries, thus reproducing the existing power inequities (Aktas et al., 2017). This entails that global citizenship can potentially become the new 'civilising mission' (Andreotti, 2006, p. 41) and coincides with Dobson's (2005) parallelism to that of the 'Good Samaritan' acting mainly due to the sense of charity rather than that of justice. Partly, this notion stems from the fact that the globalisation process is asymmetrical (Dobson, 2005) with globalisation expanding from the powerful to the powerless (Shiva, 1998 in Dobson, 2005), resulting in 'globalisers' and the 'globalised' (Gacel-Ávila, 2005).

Additionally, Clarke (2008) argues that there seems to be a lack of commitment to GC by universities in the UK, as respective consciousness raising activities are mainly based on extra-curricular initiatives. In the same manner, Clifford and Montgomery (2017; in Horey et al., 2018, p. 473) support the view that 'many HE internationalisation policies across the world claim to prepare graduates to be global citizens' (emphasis added). The popular model of the T-shaped graduate (the vertical stroke 'I' symbolising the 'deep subject specialist skills', whereas the horizontal bar '-' standing for the 'ability to work in interdisciplinary teams, solve problems creatively, work across cultures and understand how their role fits in to the bigger picture' (Jarvis, 2018)) appears to be the prevailing one. This model clearly lacks social justice as a significant parameter (Jarvis, 2018) especially in relation to the HEI's claim to promote global graduates, i.e. global citizens. Therefore, 'without a critical humanistic framework in HE, the system tends to produce technically competent but socially, morally and politically disengaged and thus in the 'public' sense, amoral graduates' (Taylor et al., 2002, in Peach & Clare, 2017).

The way to counteract this neoliberal trend in HE is by employing a critical approach to global citizenship, which is justice-oriented instead of obligation-oriented (Dobson, 2005). This avoids the potential 'civilising mission' (Andreotti, 2006) and elite-cosmopolitanism (Caruana, 2014) of a Western-dominated view on GC reflecting also the post-colonialist perspective. Not surprisingly, even in the case of critical GC, there is no uniform terminology used in the respective discourse. Andreotti (2006) to date is the only one referring to it as 'critical global citizenship', whereas Camicia & Franklin (2011) use the term 'critical democracy', and Khoo (2011) describes it as 'ethically driven' just to name a few. The underlying common denominator is a critical engagement with the current problematic social, economic, political, and cultural situation of the world (Pais & Costa, 2020). This clearly identifies the global power asymmetries, challenges them, tries to identify the causes of these. Finally it strives for a world with social justice (Tarrant, 2010) while respecting diversity in any form. Arguing in favour of this critical approach, Nussbaum (2002) highlights the importance of the Socratic idea of 'the examined life' in combination with the Stoic idea of 'liberal' education (Seneca), i.e. an education that liberates one's mind.

4. How to foster GC in HE

So how can GC be fostered in HEI that do not offer specific courses, programmes or degrees in that subject, yet still state it in their mission statement? In the absence of any formal guidelines as how to teach and foster GC in HE, the author has chosen to adopt the definition of UNESCO, as it is directly linked to education (though not extended to tertiary education). The UNESCO has been actively promoting GCE since 2012 with global citizenship being one of the three education priorities (the other two being: to expand access to education, and improve the quality of learning) (2015, p. 7). In doing so, UNESCO has identified 'three core conceptual dimensions that are common in various definitions and interpretations of GCED. […] These […] are based on, and include, aspects from all the three domains of learning: cognitive, socio-emotional and behavioural' (2015, p. 14-15).

Table 1: Core conceptual dimensions of global citizenship education (UNESCO, 2015, p. 15)

Cognitive:
To acquire knowledge, understanding and critical thinking about global, regional, national and local issues and the interconnectedness and interdependency of different countries and populations.
Socio-emotional:
To have the sense of belonging to a common humanity, sharing values and responsibilities, empathy, solidarity and respect for differences and diversity.
Behavioural:
To act effectively and responsibly at local, national and global levels for a more peaceful and sustainable world.

On a cognitive level the most prominent skill is undoubtedly that of critical thinking, which aligns with the here-adopted approach to critical global citizenship and whose importance has already been referred to in the previous section.

At this point it is worth mentioning that Andreotti (2006) goes even further and advocates for critical literacy which transcends critical thinking, in terms of identifying the truth and instead includes the aspect of critical self-reflexivity. That is, 'to reflect on their [learner] context and their own and others' epistemological and ontological assumptions: how we came to think/be/feel/act the way we do and the implications of our systems of belief in local/global terms in relation to power, social relationships and the distribution of labour and resources' (p. 49).

The latest report of the World Economic Forum related to the future of jobs from 2020-2025, continues to list critical thinking within the four top skills required in order to thrive professionally (World Economic Forum, 2020). Consequenty, HEI that also aim at the employability of their graduates need to include this aspect. The other aspect indirectly addressed within this trichotomy is that of intercultural competence and communication or cross-cultural awareness expressed in the socio-emotional domain through empathy and respect for differences and diversity. Empathy is also one of the three abilities that Nussbaum (2002) advocates for, in order to equip students for the challenges of global citizenship. She calls it 'narrative imagination' (p. 289). Indeed, the very concept of critical global citizenship rests on the interconnectedness with, and perception of, 'the Other'. In Larsen's (2014) conceptual framework of Critical Global Citizenship (CGC), the interplay of 'difference awareness' and 'self-awareness' play a pivotal role. Therefore, the current article will subsequently provide some practical examples of how teaching professionals in HE could include both critical thinking and intercultural competence in their teaching as to foster global citizenship. Although these activities are drawn from the English for Academic Purposes' classroom, they can be adapted to meet the discipline-specific needs of the learner.

4.1. Challenges

In order to be able to foster GC within any classroom, teachers themselves need to be global citizens and familiar with the respective terminology, the latter not always being the case. UNESCO has identified 'the lack of teacher capacity' (GEFI, 2012, p. 21) as one of the barriers to GC education, since apart from their strong subject and pedagogic content knowledge, they need to be able to act as role models for GC. Thus, teachers need to be guides and facilitators, 'encouraging learners to engage in critical inquiry and supporting the development of knowledge, skills, values, and attributes that promote positive personal and social change' (UNESCO, 2015, p. 51). Although these findings refer to teachers in primary and secondary education, a projection of this to HE is not unrealistic. Adding to this, there is often no clear directive in HE in general or at specific HEI as to how to approach this issue. Solely expressed as a wishful outcome leaves HE teaching professionals alone in their quest of how to develop global citizens, how to go from theory to practice, how to teach it, and notably how to evaluate or assess it (Diaz, 2017, p. 158). Most of the times, it depends on the teachers' initiative, knowledge, and sensitivity as to whether this topic will be addressed and in what form.

4.2. The English for Academic Purposes (EAP) classroom

EAP is a special field of foreign language teaching mainly addressed at future international undergraduate or post-graduate students. It primarily focuses on further developing partly proficient English learners (often with an IELTS score of already 6.5) with their academic language skills, but moreover also includes the development of study skills. EAP courses are either delivered as short (5-16 weeks max.) summer Pre-sessional or one-year long foundation programmes in combination with content- and discipline-specific courses. Therefore, some of the particular characteristics of these settings include a) the specialised syllabus and academic conventions in English-speaking universities, b) adult learners who are already equipped with a particular cultural, religious, philosophical, and political mindset, and c) the often extremely limited teaching time (e.g. max of 16 weeks in a Pre-sessional programme). Since raising awareness of GC and fostering or developing, it is a lengthy and even life-long and life-wide process (Schugurensky, 2003; in Eidoo, et al., 2011) which cannot be completed in a time-restricted programme, such as a one-year language programme. Only the foundations for such a development can be laid there. A longitudinal study of how and to what extent students use

these acquired skills in their future studies would shed light on the effectiveness and the further development of these foundations.

4.3. Practical examples of how to foster GC

As identified from the respective literature and based on the UNESCO framework, the two key skills for fostering global citizenship are augmented critical thinking and intercultural competencies. However, both skills need a long-term engagement in order to develop and any approach to teaching those skills needs scaffolding, as in particular critical thinking belongs to higher order thinking skills (cf. Bloom's Taxonomy). Below are some examples of activities or teaching methodologies that the author has compiled as being conducive to developing criticality and intercultural competence and are being used in her HE classroom. It should be noted that frequently, there is no clear distinction as to which category an activity belongs, i.e. to critical thinking or intercultural competence. Eventually, this should not be a relevant question as those two attributes are interconnected and function as communicating vessels that nourish each other.

Socratic questioning (maieutics): unlike questioning per se which often merely intends to acquire more information from the interviewee, Socratic questioning is 'systematic, disciplined, and deep, and usually focuses on foundational concepts, principles, theories, issues or problems' (Paul & Elder, 2007, p. 2). Hence it does not aim primarily at checking students' knowledge but anticipates to further explore complex ideas, to get an in-depth understanding of issues, and to uncover assumptions. Eventually the correct application of this methodology will lead to 'an examined life' where one has 'the ability to criticise one's own traditions and to carry on an argument on terms of mutual respect for reason' (Nussbaum, 2002, p. 289). As it is a systematic form of questioning, teaching professionals need to be familiar with this technique and model the procedure. Richard Paul's (1995) work in this field has been significant in that he managed to systematise and categorise Socratic questioning into six key question types:

1. Questions for clarification.
2. Questions that probe assumptions.
3. Questions that probe reasons and evidence.
4. Questions about viewpoints and perspectives.
5. Questions that probe implications and consequences.
6. Questions about the question.

These question types, which should not be perceived as a taxonomy in the sense of a hierarchy, should be introduced to learners by providing explicit explanation of their role in fostering critical thinking. Until students internalise these questions and this process, educators should teach this 'through focused interaction' (Elder & Paul, 2010, p. 38) and scaffold discussions.

Argumentation

Although it might seem as redundant to mention argumentation as one of the techniques to strengthen critical thinking as a key component of GCE, the author's year-long experience in HE classrooms has shown that students need to be explicitly taught and guided towards applying this form of reasoning. This includes encouraging students to stive for a 360^0 view of a topic or issue while taking into consideration as many as possible different perspectives. Moreover, modelling how any argument can be disputed by a counter-argument which in turn can be refuted or rebutted helps students increase their criticality while being mindful of multiple perspectives.

Logical fallacies

Directly linked to argumentation and possible flaws in them are logical fallacies, i.e. errors in reasoning. The initial taxonomy of four logical fallacies dates back to Aristotle when he introduced them in On Sophistical Refutations, whereas contemporary philosophers or linguists have expanded that list to up to 300 (e.g. Bennett, 2012). Being critical includes the ability to not only recognise logical fallacies but also to avoid them. Therefore, the author often includes a separate lesson as an introduction to this topic by presenting the most common types of logical fallacies. Once students are familiarised with this concept, retention is gradually increased by follow-up activities with explicit reference to this phenomenon. Such activities can involve the analysis of an argument or evidence that students want to include from a source in their essay for example, or the analysis of their own argumentation in writing or speaking. Ultinately, this strengthens also critical thinking, since learners become gradually and increasingly aware of logical fallacies that can either be genuine errors in logical thinking or manipulative rhetoric devices.

Academic debates

Another activity that students enjoy, are debates. For this activity, students must receive in advance clear rules and instructions on the procedure of an academic debate, being assigned a role (usually by luck of the draw as to ensure impartiality and equality), and have enough time to prepare (either by brainstorming or researching) for it. Global issues, taboo and/or controversial topics which can either be chosen by the tutor or students themselves will give students the opportunity to both apply the aforementioned aspects, and often force them to step out of their comfort zone. Defending opinions that are opposite to their own depending on which side they have been assigned to accentuates the learning experience. The passion, content and quality of arguments, but also the fun students have when engaging in debates indicates the usefulness of such an activity.

Activities or teaching approaches that can increase intercultural competence (linked to the socio-emotional dimension of the UNESCO framework, such as empathy and respect of difference) include the following:

Choice of topics

When choosing topics for discussions, analyses, debates, assignments or simply as a vehicle to teach other aspects (e.g. to teach a grammatical phenomenon in language classes) particular attention has to be paid to this. Especially culturally diverse classrooms present a unique opportunity for topics to be selected also according to the cultural background of the students. The current debate in western HE about decolonising the curriculum and moving away from predominantly western-centric curriculum content while simultaneously increasing diversity and inclusion (cf. Arday et al., 2020), underlines this necessity. Furthermore, this promotes the notion of ethno-relativism, i.e. that all cultures are equally important and that none is more advanced than another. More often than not, this provides an opportunity to identify commonalities amongst cultures rather than only focusing on the differences which in turn undermines a global perspective and enhances the 'us' versus 'them' dichotomy (cf. one of the key learning outcomes for GCE within the 'socio-emotional' domain of learning (UNESCO, 2015, p. 22)). Therefore, choosing material from a variety of cultural and academic backgrounds which should exceed the various cultures represented in a particular classroom will expand the learners' 'knowledge and understanding of local, national and global issues and the interconnectedness and interdependency of different countries and populations' while simultaneously 'develop [their] skills for critical thinking and analysis' (UNESCO, 2015, p. 22). As Curran (n.d. in Hunter et al., 2006, p. 275) argues, cross-cultural awareness is a key aspect of becoming globally comptetent.

Identifying and collecting such material could present two additional challenges for educators: additional workload and foreign language. To overcome these, students can occasionally be asked to actively contribute to the lesson by providing such material and translating it where necessary.

Nonverbal communication

Intercultural competence increases when people become aware of the importance of nonverbal communication, because it is culture specific. In intercultural encounters, most misunderstanding or barriers to communication arise because nonverbal cues are inappropriately interpreted (or sent). These nonverbal communication cues include facial expressions, gestures, posture and eye contact (Knapp et al., 2014). According to Andersen (2000; in Andersen et al., 2003) there are cultural differences in eight nonverbal codes: chronemics, kinesics, proxemics, haptics, physical appearance, oculesics, vocaliscs, and olfactics. This indicates the significance of successful and culture-sensitive communication across cultures that global citizens should possess. In HE, nonverbal communication skills can be included and practised in group work, presentations and seminars. An element of gamification can be embedded in the lesson by asking students to identify the meaning of various gestures, allowing each student to present one from his or her culture.

The presentation of the above teaching approaches and activities can potentially lead to more respect for others, develop empathy, and allow students (and tutors) to realise and/or re-evaluate their own positionality. Eventually, this could also affect in the long term the behavioural dimension of the UNESCO framework and equip students with tools that will allow them as future critical global citizens to negotiate differences, while at the same time respecting them.

5. Conclusion

As opposed to national citizenship which might be solely defined by where a person happens to be born, global citizenship is a personal choice. GC 'is neither a status nor a qualification but a life-long process and foremost an attitude […]' (Schugurensky, 2003; in Eidoo, et al., 2011). Consequently, its development cannot and should not be confined or even completed solely within HE, especialy in the short term. GC expands beyond the time a student engages with this topic during their studies and continues to be refined through their life experiences. Numerous HEI have made a deliberate choice of mainly promoting a market-oriented, i.e. neoliberal approach to their education strategies and subsequently to their approach to GC. In order to counteract to this development, a critical stance has to be taken. The author supports the position that students need to fathom global inequalities and their consequences mostly resulting from a neoliberal globalisation. However, better GC capabilities can be achieved by emphasising critical thinking and intercultural competence, the two main aspects as described by UNESCO. HE educators can build the foundations for becoming a GC and equip students with tools that will help them continue their development to being a critical global citizens after graduating from university. The limitation of this conceptual paper lies in the absence of data from a longitudinal study that will support this assumption. Albeit the examples presented in this article are drawn from the EAP classroom, they can be adapted to the needs of other disciplines.

References

Aktas, F., Pitts, K., Richards, J. C., & Silova, I. (2017). Institutionalising global citizenship: A critical analysis of higher education programs and curricula. *Journal of Studies in International Education, 21*(1), 65-80. doi:10.1177/1028315316669815

Andersen, P. A., Hecht, M. L., Hoobler, G. D., & Smallwood, M. (2003). *Cross-cultural and Intercultural communication.* (W. B. Gudykunst, Ed.) Thousand Oaks, CA: SAGE Publications Inc.

Andreotti, V. (2006). Soft versus critical global citizenship education. *Policy & Practice - A Development Education Review, 17*, 40-51.

Appiah, K. A. (2006). *Cosmopolitanism: Ethics in a world of strangers.* New York: W. W. Norton & Co. Inc.

Arday, J., Belluigi, D. Z., & Thomas, D. (2020). Attempting to break the chain: Reimaging inclusive pedagogy and decolonising the curriculum within the academy. *Educational Philosophy and Theory,* 1-16. doi:10.1080/00131857.2020.1773257

Asia Society/OECD. (2018). *Teaching for global competence in a rapidly changing world.* doi:10.1787/9789264289024-en

Bennett, B. (2012). *Logically fallacious: The ultimate collection of over 300 logical fallacies*. eBookIt.com.

Brock, G. (2015, July 8). *Cosmopolitanism*. https://www.britannica.com/topic/cosmopolitanism-philosophy

Camicia, S. P., & Franklin, B. (2011). What type of global community and citizenship? Tangled discourses of neoliberalism and critical democracy in curriculum and its reform. *Globalisation, Societies and Education, 9*(3), 311-322. doi:10.1080/14767724.2011.605303

Caruana, V. (2014). Re-thinking global citizenship in higher education: From cosmopolitanism and international mobility to cosmopolitanisation, resilience and resilient thinking. *Higher Education Quarterly, 68*(1), 85-104. doi:10.1111/hequ.12030

Clarke, M., Yang, L., & Harmon, D. (2018). *The internationalisation of Irish higher education.* https://hea.ie/assets/uploads/2018/07/report_internationalisation_of_education_2018.pdf

Diaz, L. C. (2017, January-June). Citizenship education and the efl standards: A critical reflection. *PROFILE, 19*(1), 155-168. doi:10.15446/profile.v19n1.55676

Dobson, A. (2005). Globalisation, cosmopolitanism and the environment. *International Relations, 19*(3), 259-273. doi:10.1177/0047117805055406

Dobson, A. (2006). Thick Cosmopolitanism. *Political Studies, 54,* 165-184.

Eidoo, S., Ingram, L.-A., MacDonald, A., Nabavi, M., Pashby, K., & Stille, S. (2011). Through the kaleidoscope: Intersections between theoretical perspectives and classroom implications in critical global citizenship education. *Canadian Journal of Education / Revue canadienne de l'éducation, 34*(4), 59-85.

Elder, L., & Paul, R. (2010). Critical thinking: Competency standards essential for the cultivation of intellectual skills, part 1. *Journal of Developmental Education, 34*(2), 38-39.

Engel, L. C., Rutkowski, D., & Thompson, G. (2019). Toward an international measure of global competence? A critical look at PISA 2018 framework. *Globalisation, Societies and Education, 17*(2), 117-131. doi:10.1080/14767724.2019.1642183

Gacel-Ávila, J. (2005). The internationalisation of higher education: A paradigm for global citizenry. *Journal of Studies in International Education, 9*(2), 121–136. doi:10.1177/1028315304263795

Gallie, W. B. (1956). *Essentially contested concepts. Proceedings of the Aristotelian society, 1955 - 1956. 56* (1955-1956), pp. 167-198. London: Oxford University Press on behalf of The Aristotelian Society.

GEFI. (2012). *Global education first initiative: An initiative of the united nations secretary-general.* http://www.unesco.org/new/en/gefi/about/

Green, M. F. (2012). Global citizenship: What are we talking about and why does it matter? *International Educator*, May/June.

Grotlüschen, A. (2018). Global competence - does the OECD competence domain ignore the global South? *Studies in the Education of Adults, 50*(2), 185-202. doi:10.1080/02660830.2018.1523100

Heater, D. (2004). *Chitizenship: The civic idea in world history, politics and eduction* (3rd ed.). Manchester: Manchester University Press.

Horey, D., Fortune, T., Nicolacopoulos, T., Kashima, E., & Mathisen, B. (2018). Global citizenship and higher education: A scoping review of the empirical evidence. *Journal of Studies in International Education, 22*(5), 472-492.

Hunter, B., White, G. P., & Godbey, G. C. (2006). What does it mean to be globally competent? *Journal of Studies in International Education, 10*(3), 267-285. doi:10.1177/1028315306286930

Jarvis, C. (2018). *Growing global graduates: Teaching for a better world*. Birmingham.

Khoo, S.-M. (2011). Ethical globalisation or privileged internationalisation? Exploring global citizenship and internationalisation in Irish and Canadian universities. *Globalisation, Societies and Education, 9*(3-4), 337-353. doi:10.1080/14767724.2011.605320

Kim, J. J. (2019). Conceptualising global competence: Situating cosmopolitan student identities within internationalising South Korea Universities. *Globalisation, Education, Societies, 17*(5), 622-637. doi: 10.1080/14767724.2019.1653755

Kleingeld, P., & Brown, E. (2014, Fall). Cosmopolitanism. In. E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy.* https://plato.stanford.edu/archives/fall2014/entries/cosmopolitanism/

Knapp, M. L., Hall, J. A., & Horgan, T. G. (2014). *Nonverbal communication in human interaction* (8th ed.). Boston: Wadsworth Cencage Learning.

Larsen, M. (2014). Critical global citizenship and international service learning: A case study of the intensification effect. *Journal of Global Citizenship & Equity Education, 4*(1), 1-26

McGrew, A. (2000). Sustainable globalization? The global politics of development and exclusion in the new world order. In T. Allen, & A. Thomas, *Poverty and development into the 21st century* (pp. 345-364). Milton Keynes, UK: Open University Press.

Nussbaum, M. (2002). Education for citizenship in an era of global connection. *Studies in Philosophy and Education, 21*, 289-303.

O'Byrne, D. J. (2003). *The dimensions of global citizenship: Political identity beyond the nation-state*. Taylor & Francis Group.

OECD. (2018). *Preparing our youth for an inclusive and sustainable world. The OECD PISA global competence framework*. Paris. https://www.oecd.org/education/Global-competency-for-an-inclusive-world.pdf

Oxley, L., & Morris, P. (2013). Global citizenship: A typology for distinguishing its multiple conceptions. *British Journal of Educational Studies*, 301-325. doi:10.1080/00071005.2013.798393

Pais, A., & Costa, M. (2020). An ideology critique of global citizenship education. *Critical Studies in Education, 61*(1), 1-16. doi:10.1080/17508487.2017.1318772

Paul, R. W. (1995). *Critical thinking: How to prepare students for a rapidly changing world*. Foundation of Critical Thinking.

Paul, R., & Elder, L. (2007). *The thinker's guide to the art of socratic questioning. The foundation for critical thinking*. criticalthinking.org

Peach, S., & Clare, R. (2017). Global citizenship and critical thinking in higher education curricula and police education: A socially critical vocational perspective. *Journal of Pedagogoc Development, 7*(2), 46-57.

Perry, L., Stoner, K. R., Stoner, L., Wadsworth , D., Tarrant, M., & Tarrant, M. A. (2016). The importance of global citizenship to higher education: The role of short-term study abroad. *London Review of Education and Science, 1*(19), 342-356.

Plutarch. (1878). *Plutarch's morals* (Vol. 3). (W. W. Goodwin, Ed., & S. Hands, Trans.) Boston: Little, Brown, and Co. https://oll.libertyfund.org/titles/1213#Plutarch_0062-03_526

Rhoads, R. A. (2013). The case of global citizenship: Challenges and opportunities. In B. S. University, G. E. Kong), & P. University (Ed.), *Global citizenship curriculum in higher education: Evolving policy and practice and a future research agenda,* (pp. 5-7). Hong Kong. https://www.gcedclearinghouse.org/sites/default/files/resources/Global%20citizenship%20curriculum%20in%20higher%20education.pdf

Schattle, H. (2009). Global citizenship in theory and practice. In R. Lewin, *The handbook of practice and research in study abroad: Higher education and the quest for global citizenship* (pp. 3-20). New York and London: Routledge.

Shultz, L. (2007). Educating for global citizenship: Conflicting agendas and understandings. *The Alberta Journal of Educational Research, 53*(3), 248-258.

Shultz, L. (2013). *Mobility, entrepreneurism, justice, or action: What is educational in global citizenship education? global citizenship curriculum in higher education: Evolving policy and practice and a future research agenda*, (pp. 11-13). Hong Kong.

Simpson, A., & Dervin, F. (2019). Global and intercultural competence for whom? By whom? For what purpose?: An example from the Asia Society and the OECD. *Compare: A Journal of Comparative and International Education, 49*(4), 672-677. doi:10.1080/03057925.2019.1586194

Tarasheva, E. (2008). *Integrating citizen education into English language courses for university students. Global Citizenship in the English Language Classroom,* 6-12. (T. Gimenez, & S. Sheehan, Eds.) British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/pub_GlobalCitizenv2.pdf

Tarrant, M. A. (2010). A conceptual framework for exploring the role of studies abroad in nurturing global citizenship. *Journal of Studies in International Education, 14*(5), 433-451. doi:10.1177/1028315309348737

UNESCO. (1998). World Declaration on Higher Education for the Twenty-first Century: Vision and Action and Framework for Priority Action for Change and Development in Higher Education. (p. 16). *UNESCO*. https://unesdoc.unesco.org/ark:/48223/pf0000141952

UNESCO. (2015). *Global citizenship education. Topics and learning objectives*. Paris: UNESCO.

UNESCO. (2018). *Preparing teachers for global citizen education. A template*. Paris and Bangkok: UNESCO.

World Economic Forum. (2020). *The future of jobs report 2020*. World Economic Forum.

Xiao, W. (2013). Cultivating cosmopolitan citizens: On Chinese citizenship education in the era of globalisation. *Global citizen curriculum in higher education: Evolving policy and practice and a future research agenda*, (p. 9). Hong Kong.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Dynamics in a Mandarin lesson in a British secondary school: Asymmetric power and teacher-student rapport management

Qing Li[A] *A* *PhD candidate, Institute of Education, University College London, UK*

Fotini Diamantidaki[B] *B* *Lecturer in Language Education, Department of Culture, Communication and Media, UCL Institute of Education, University of London; Vice-President, Research and Academic Affairs, Communication Institute of Greece*

Katharine Carruthers[C] *C* *Director, UCL Institute of Education (IOE) Confucius Institute for Schools and Pro-Vice-Provost (East Asia) for University College London, UK*

Keywords

Asymmetric power;
conversation analysis;
dynamics;
Mandarin lesson;
teacher-student rapport.

Article Info

Received 11 October 2020
Received in revised form 25 November 2020
Accepted 27 November 2020
Available online 27 November 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.25

Abstract

This study investigates the conversation between a teacher and a group of students in a Mandarin lesson at a secondary school in London. The specific task for that lesson was to nominate a team leader for the presentation of a Chinese city. By applying conversation analysis, this study reveals the asymmetric power between the teacher and students and how the teacher managed the teacher-student rapport in the class. This study also presents the dynamics in the class and the linguistic features of the conversation; the teacher eventually exerted reward, coercive, expert and legitimate power during the lesson. The study focuses on how the teacher-student rapport was challenged concerning students' identities, educational goals, sociality right and obligations. Furthermore, this study reveals that the teacher's questions were more referential than initial and presents how an experienced teacher managed the class and achieved the educational goal.

1. Introduction

In conversation analysis, classroom talk is usually regarded as a type of institutional talk (Markee & Kasper, 2004), of which the theme is closely concerned with the educational goals and roles as well as the institutional rules and constraints with which people involved in must comply (Drew & Heritage, 1992; Sarangi & Robert, 1999). Due to these characteristics, conversations between teachers and students are usually asymmetrical as teachers often present some authority and exercise control over the class (Drew & Heritage, 1992; Gunnarsson et al., 1997) and this asymmetrical relationship has drawn a great deal of attention from researchers over the last few decades (Cazden, 1988; Edwards & Mercer, 1987; Lemke, 1990; McHoul, 1978; Mehan, 1979; Nystrand, 1997). Though the teacher-student relationship was traditionally regarded as an unequal relationship, several studies into classroom discourse have found that students posed several challenges to teachers (Edwards & Mercer, 1987; Lemke, 1990; Mehan, 1979). The conflict between teachers and students has attracted much interest from researchers, particularly the unexpectedly chaotic and disorderly nature of self-selection in the context of classroom talk (Emanuelsson & Sahlstrom, 2008). For example, in classes where students are learning Chinese as a second language, Li (2013) explained how a teacher tried to maintain her authority while responding to a learner's challenging reactions but failed in achieving the pedagogical goals. In another Mandarin learning class, Li (2019) investigated a conflict classroom talk between a teacher and a group of students. This study concluded that students broke the asymmetry between student-teacher rapport and made themselves heard, which in turn was highly valued by the teacher. By using analytic conversation methods, Fagan (2012) examined the discursive practices of a novice teacher dealing with unexpected contributions from students and difficult questions. By employing the same approach, Fagan (2013) also investigated how an experienced teacher managed learner contribution by focusing on the positive sides of the learners, which contributed to classroom interaction, language teacher cognition and language teaching practices. Focusing on turn-taking, Waring (2013a; 2013b) examined how a teacher managed chaotic contributions from self-selected students while achieving educational goals. Lee (2007) examined interactions in teacher-student discourse and specified how the teacher responded and acted to contingencies while moving the interactions forward, contributing to the pedagogical work in the practical enactment of classroom teachers.

To enrich the research on the asymmetric relationship between teachers and students, this study investigates a Mandarin class in a secondary school in London to demonstrate how a Mandarin teacher finds the balance between himself and the students whilst achieving the educational goal successfully. More specifically, by applying conversation analysis, this study examines the dynamics in a teacher-student discussion to present how the teacher manages teacher-student rapport and how both the teacher and students achieve the goals for that lesson, which was to find a team leader for the group. In the last few decades, Mandarin learning in British secondary schools has grown rapidly and started to establish its place in the Modern Foreign Languages curriculum. However, research on learning Mandarin as a second language at the secondary school level is much needed (Diamantidaki et al., 2018). To fill this gap, it is hoped that this study will be pedagogically relevant for all educational professionals.

2. Literature review

2.1 Power and rapport management theory

The teachers' role in the class is crucial as they monitor students' learning, evaluate their performance and facilitate their progress. Traditionally, teachers hold more power in the class as they take control of it (Spencer-Oatey, 2008). Brown and Gilman (1972) defined power as something that exists between at least two persons: "one person may be said to have power over another in the degree that he is able to control the behaviour of the other" (p.225). Often, power is particularly found to be operationalised in teacher-student relationships (Spencer-Oatey, 2008). Derived from the five main bases of power as proposed by French and Raven (1959), Spencer-Oatey (2008) pointed out that teachers typically have four types of power over students: (1) reward power (the teacher has control over students' positive outcomes, such as good performance, a right answer, and so on); (2) coercive power (the teacher has control over students' negative outcomes); (3) expert power (the teacher has some special knowledge or expertise which students need or want), (4) legitimate power (the teacher has the right to expect certain things of students and an obligation to carry out certain things because of their role and circumstances). The referent power, one wants to be like him/her in some respect, may exist between the teacher and students but is not typically found.

Power is significant in the study of social relationships (Brown & Gilman, 1960; Brown & Levinson, 1987) and numerous theoretical frameworks have been proposed concerning relationship management, such as the six politeness maxims (Leech, 1983); politeness principle (Lako, 1973); conversational contracts (Fraser, 1990); and politeness model (Brown & Levinson, 1978, 1987). Within these theories, Spencer-Oatey (2008) proposed the rapport management theory to help understand the concept of the relationship in a way aiming to provide insights into the relational ups and downs of social interaction (Spencer-Oatey, 2015). Specifically, this theory consists of three interrogational components: (1) face sensitivities, (2) interactional goals, and (3) sociality rights and obligations (see Figure 1). In this theory, face sensitivities are concerned with people's sense of worth, dignity and identity, particularly issues associated with respect, honour, status, reputation and competence (Ting-Toomey & Kurogi, 1998). Face sensitivities closely relate to three types of identities: the individual identity (self as an individual); the group or collective identity (self as a group member); and the relational identity (self in relationship with others). Each of these identities has certain attributes or characteristics such as particular beliefs, personality traits and physical features. As people generally have a fundamental desire for others to evaluate them and their attributes positively, acknowledging their negative qualities can be regarded as threatening their sense of identity and

can be regarded as face sensitive. However, which attributes are face sensitive can vary from person to person. Sociality rights and obligations are usually associated with the expectations of others. Spencer-Oatey (2008) claims that perceived sociality rights and obligations mainly derive from legal/contractual requirements (usually based on a business or contract, such as employees' behavioural codes); explicit/ implicit conceptualisations of roles and positions (concerning the rights/obligations of the role relationship, such as equality-inequality, distance-closeness); and behavioural conventions (related to behavioural styles, protocols, social group norms and traditional rules etc.). If these expectations are not fulfilled, interpersonal rapport can be affected. Interactional goals also influence interpersonal rapport as people usually have specific goals when they interact with others, such as a relational goal and a task-focused goal. Failure to achieve these goals could pose a threat to rapport and cause frustration, annoyance and so on.

Figure 1: The basis of rapport

2.2 Speech acts

The social relationship has been investigated from the perspective of speech acts, such as "requests" (Blum-Kulka et al., 1985; Holtgraves & Yang, 1990; Lim & Bowers, 1991), "apologies" (Holmes, 1990; Olshtain, 1989), "directives" (Holtgraves et al., 1989) and "disagreements" (Beebe & Takahashi, 1989a). The language used in speech acts can be generally analysed in five domains: the illocutionary, discourse, participation, stylistic and non-verbal (Spencer-Oatey & Xing 1998, 2004, 2008). However, this study mainly focuses on the illocutionary and discourse domains as the two domains can better reveal the dynamics in teacher-student interactions in this case study.

More specifically, the illocutionary domain concerns the rapport-threatening / enhancing implications of performing speech acts, such as orders, requests, apologies and compliments (Brown & Levinson, 1987). There are three ways to examine speech acts strategies in this perspective. The first is to examine the main semantic components of the speech act, such as the essential components and non-essential components in utterances. The second approach is to examine the linguistic directness and indirectness of the speech act, especially in requests and disagreements. For example, "Wash the dishes!" signals the speaker's direct force, while "Can you wash the dishes?" is a request to do something, and "What a lot of dishes there are!" only provides some hints to a request. The third approach is to analyse the upgraders/downgraders in a speech act. Upgraders strengthen the force of the utterance and are also called maximisers, boosters, and intensifiers. For example, in the phrase "I'm terribly sorry", "terribly" intensifies the speaker's force. In contrast, downgraders mitigate or weaken the force in the speech act and are also called minimisers, hedges, and downtoners. For example, in the request "Can you tidy up your desk a bit?", "a bit" plays the role of a downgrader to mitigate the force of the request.

The discourse domain concerns the content and structure of an interchange, such as topic change and information sequencing. The most commonly found phenomenon in classroom interactions is Initiation-Response-Evaluation (IRE) (Mehan, 1979) or "triadic dialogue" (Lemke, 1990). This sequence begins with the teacher's question, which is followed by the students' answer, and then the next turn is taken by the teacher to offer feedback, seek clarification and so on. Some observations focus on the initial question and reveal the types of questions teachers usually raise as well as to what extent they are pedagogically effective (Long & Sato, 1983; Brock, 1986; Dillon, 1990; Lynch, 1991). For example, by analysing the classroom speech of six teachers, Long and Sato (1983) investigated the use of two types of questions: display questions (asking students to display or provide knowledge of the information already known by the questioner) and referential questions (requesting or seeking information that is not already known by the questioner). In that study, the researchers found significant differences in terms of the effectiveness of questions and concluded that referential questions are more effective in generating students' output. In the second turn of the IRE, what students would say contains multiple possibilities and thus is unpredictable to a great extent, although the class is very well designed and monitored by the teacher (Lee, 2006). This characteristic embedded in students' second turn determines the contingency in the third turn. In other words, how the teacher takes the third turn is contingent upon the prior turn of the students. More research has been conducted about the role and function of the third turn, which implicates the teacher's uptake of the students' responses displayed in the second turn (Lee, 2006). The third turn in teacher-student interaction is traditionally categorised into two blanket terms: feedback and evaluation (Barnes, 1976; Cazden, 1986; Carlsen, 1991; Wells, 1993; Nassaji & Wells, 2000). However, some researchers have claimed that the complexity and importance of the third turn are more than just evaluation or feedback (Young, 1992; Wells, 1993; Hall, 1997; Nassaji & Wells, 2000). Taking giving feedback as an example, sometimes teachers not only just comment on whether students' answers are correct, adequate or relevant to the topic, but also focus on how accurate or convincing their response is. Indeed, even for the correct answer, teachers may often ask students to elaborate, reformulate or defend their answers further. To capture the various functions of the third turn

of the IRE, Nassaji and Well (2000) identified six potential categories: evaluation (to comment, whether positive or negative); justification (to defend the given answer or seek reasoning for the answer); counter-argument (to oppose the answers or disagree with participants); clarification (to seek further information to make the object clearer); meta-talk (to talk about language used to identify and resolve communication problems) and action (to plan, direct, and so on). This typology offers the possibility to investigate the primary knower in the relationship during the interaction. For example, if the teacher makes an evaluative follow-up move after the student's turn, the teacher is regarded as the primary knower of the information. If the teacher instead adopts another approach, such as requesting or counter-argument, the role of the primary knower shifts to students while the teacher plays the role of the manager, who decides on the direction and pacing of the discussion. However, although this six functional scheme provides a potential coding system that presents diverse cases of the third turn in an analytically stable and predictable manner, it is evaluated as being "finite and mutually exclusive" (Lee 2007, p.183) as it may not authentically or truly reflect the interactions, especially in conflict talk where participants confront each other and where multiple layers of meanings can be involved (Heap, 1982; Atkinson & Delamont, 1990). As Sharrock and Anderson (1982) claimed, "the method is a means to discovery, but it is also a constraint" (pp. 172-173). That is to say, a categorical system may inevitably abstract and coerce the data into individual cases for the purpose of consistency, as each case resembles the other as an instance of the proposed categorical formulation. This system is more likely to obscure and gloss over local exigencies embedded and enacted in the turn-taking interaction (Sharrock & Anderson 1982; Lee 2007).

Therefore, to exploit local contingencies and fully appreciate the participants' reflexive undertaking of what goes on and instead of abstracting the turns into stable and finite categories, this study incorporates the entire interaction between the teacher and students from the outset. To demonstrate the dynamics and contingencies enacted by the teacher and students in the class, this study analyses the linguistic features (e.g., tones, pitches and turn-takings) and the language strategies (e.g., semantic components, directness/indirectness; downgraders/upgraders) used in conversations. This study also uses the rapport management framework to facilitate a comprehensive account of the data to understand how the teacher-student relationship was managed in the Mandarin classroom observed in this study, where teacher and students were working on a specific task to achieve institutional goals.

3. Method

Data obtained for this study came from two Mandarin lessons which were audio recorded. Permission from the school was obtained for the collection of data via emails between the head of Modern Foreign Language and the researcher, and the aim of this study was explained in front of the teacher and students before data were collected. Consent forms were collected from the students and teacher prior to the recordings taking place, as well as from parents if the students were under 13 years of age. Pseudonyms are used instead of participants' names in this study. The recordings were conducted by using a voice recording application on the researcher's mobile phone, which was put on the teacher's desk at the front of the classroom. There were a few times that the quality of the recording was not as good as expected due to the movement of the teacher and students, but this did not have a significant impact on data analysis. There were 28 students in total, with approximately five students in each group. The first lesson was for students to discuss a Chinese city they would like to present and to select a project manager/team leader. The second lesson was for the teams to report back on their work and their choice of team leader. Data analysed for this study were taken from the second Mandarin lesson where the teacher led the lesson. A particular conflict conversation between the teacher and a group was chosen for the data analysis as it involved rich linguistic features and dynamic teacher-student interactions. The excerpt was about 5 minutes long, and the language used in this class was English. Conversation data were transcribed referring to the transcript symbols developed by Atkinson and Heritage (1984) and Paul ten Have (2007).

4. Analysis

The data below presents an entire conversation between the teacher and "Group 1", which is divided into six extracts. Extracts 1- 4 refer to identifying the project manager for the group. Extract 5 refers to the way students worked with each other, while extract 6 is the teacher's conclusion for the groups' discussions.

(T=teacher, S1: student 1, S2: student 2, Ss: students).

Part 1: The first time requesting "who"

1 T: right group 1?
2 S1: eh(.) We had really >°made a decision and quick way°<to select our manager
3 =firstly, we asked our group if there is anyone who perhaps up to that job-
4 T: who asked that question?
5 Ss: we ALL [did it-]
6 S2 [WE ALL-]
7 T: ¬HOW did you ALL deci:de to >ask the same question<
8 Ss: [(laughing, talking, discussing)]

Before the conversation, the teacher made the enquiry about the team leader clear. As soon as the teacher turned to group 1 (line 1), student S1 took the turn. As a result, it was automatically assumed that she was the team leader as only team leaders were allowed to speak up for their teams. This was regarded as the sociality rights of the representatives. However, S1 started off by using 'we' twice rather than 'I' (lines 2 -3) in her response to claim in-group membership, which narrowed down the social gap between herself and the other group members. However, at the same time, S1 didn't distinguish herself as the team leader from the rest of the group (Li, 2019). Therefore, S1's response gave a hint

that she may not be the team leader. The teacher noticed this point immediately and interrupted S1 by questioning 'who' S1 was referring to (line 4). By doing so, the teacher was requesting clarity of the concept of 'we' in S1's response.

In the next turn, group members self-selected and answered that 'we all did it' to support S1's answer (lines 3-4), which improved inter-group rapport (Spencer-Oatey, 2008). However, concerning the usage of 'we', S1's 'we' may refer to two persons from the group or may mean all group members, while the self-selected students claimed 'we' as all group members (line 5). However, the teacher expected one representative from this group to stand out. Concerning the usages of the first-person pronoun, some studies have claimed that it is largely affected by power and solidarity in relations (e.g., Brown & Gilman, 1960; Brown & Levinson, 1987). In this case, S1, other group members and the teacher all had different interpretations of 'we'. Due to the ambiguities of the pronoun, the teacher raised his tone (line 7) and steered the questions into more detailed and hopefully more manageable ones to clarify their answers (line 7) by emphasising the words 'how', 'all' and stretching the word 'decide'. However, students fell into chaos (laughing, talking, discussing) (lines 8-9). Lee (2007) once noted that in response to teachers' requests and counter arguments, when students are primary knowers, they are more likely to self-select to respond and thus their reactions are less predictable, as displayed in this scenario.

Part 2: Paraphrasing the question

9 S2: [becau::se]
10 T: NO
11 T: YOU MUST
12 HELLO
13 (.)EXCUSE ME
14 (.)<the others are not allowed to CONTRIBUTE>
15 >you have to be< QUI:ET
16 (2.0) Excuse me (.) Zac (.) Zac ¬HELLO
17 (.) that's not what we are doing no::w
18 We are really talking about
19 >we're listening to each other<
20 S1: [because-]
21 T: [SO:] could you tell me how: everybody asks the same question
22 >Did one person come up this question-?<

As the situation was out of control, the teacher used the single word 'no' with very emphatic force (line 10), followed immediately by the obligation 'you must' (line 11) then calling out 'hello' (line 12) and 'excuse me' (line 13). These words usually act as alerts in requests to get people's attention (Blum-Kulka et al., 1989) and they are particularly found in requests to introduce the next utterance (Olshtain & Cohen, 1983). In the following turns, the teacher further emphasised what the 'others' should and should not do (i.e., 'to be quiet') (lines 14-15). In the next turn, an array of stressed words - 'others', 'allowed' and 'contribute' - indicated the teacher's strong and direct request (Blum-Kulka et al., 1989), which not only challenged the base of the teacher-student rapport but also exhibited the teacher's authority to control the whole class (Spencer-Oatey, 2008). These strong and commanding linguistic features are unlikely to be found in students' utterances as a result of the unequal power that teachers and students possess (Spencer-Oatey, 2008).

However, it seems that the students did not pay attention to the teacher. Waiting for two seconds for the students' attention, the teacher then made another request by pointing at one student named 'Zac' (line 16). The teacher stated once again what Zac should not do (line 17) and should do (lines 18-19). This time, the teacher posed a striking contrast between Zac and the rest of the class by using 'we', which threatened to undermine the teacher-student rapport. In fact, by identifying Zac, the teacher was trying to secure the attention of the whole class, as what they said to Zac in lines 17-19 was similar to lines 14-15. At that time, the rapport between the teacher and students was adversely affected. Glossing over the unexpected learner contribution from S1 (line 20), the teacher then reiterated the question that was asked previously in line 7 (lines 21-22). However, this time, the request was accompanied with the preparator 'could you tell me' to express the teachers' willingness and to mitigate their request. This mild indicator was the first sign of the softening of the teacher-student relationship (Blum-Kulka et al.,1989).

As we can see from part 1, the teacher wanted to find out who was the team leader of the group. As they didn't get an answer, the teacher parsed the "who" question into the open questions 'who' (line 4) and 'how' (line 7). The second time, the teacher further paraphrased the same question into a yes/no question (lines 21-22). These questions challenged the teacher-student rapport as reflected by the students' reactions and the teacher's linguistic features. Brown and Levinson (1987) and Spencer-Oatey (2008) have discussed how requests can disrupt rapport and make people feel irritated or annoyed.

Part 3: Reformulation of the question

23 S1: It's almost obvious question
24 >because someone doesn't want to be project manager<
25 >then (.) OF COURSE that's not gonna to work out<
26 isn't it?
27 T: NO
28 >my question i:s< >my question i:s<
29 <how did this idea> of PEOPLE <dropping out> come [about]?
30 >did they nominate themselves? <
31 >did somebody say< who doesn't want to be

Listening to the teacher's request, S1 took the next turn and commented 'it's almost an obvious question' and ended with a rhetorical question (lines 23-26). Her utterance in lines 24 and 25 was in a much quicker speed than line 23, which indicated that she was in a hurry to get the answer correct. Unfortunately, her attempt was not a correct answer as the teacher gave rather terse feedback in the form of the word 'NO' (line 27). The teacher then steered the students back to the previous question by repeating twice the phrase 'my

question is' (line 28). This time, the teacher reformulated the question to 'how did the idea of people dropping out come about' (line 29) and called for specific information which focused on one particular component, namely 'people' (line 29). By formulating the question in this way, the teacher pointed to what was problematic in S1's response and offered clues about the answer by giving options such as 'they' or 'somebody' to clarify the 'people' (lines 30-31). This was the third time that the teacher asked the students for the referent of the word 'who' (line 4; lines 21-22; lines 29-31).

It is a common phenomenon in classroom settings that teachers' questioning sequences often draw from the students' reply, particularly when students' replies fail to receive a positive response from the teacher (Lee, 2007) . In this case, the teacher reformulated his question into several focused components, which were contingent on the student's answer, from which the teacher learned what the issue was and what kind of resources was necessary for the students to find the correct answer.

Part 4: The satisfied answer

32 S2: For me, it's not like we are up to the task
33 we:: we asked everyone else to say who-
34 T: °okay° we mean both of you
35 >[both] of you a:sked who doesn't want to be<
36 Ss: [Yeah]
37 [Yeah]
38 S2: [Oh no] >we said we feels like< Oh yeah
39 S1: and we ask them ¬why
40 they said that they are more SHY::
41 >they didn't have had much experience<
42 then we did democracy (.) kind of the thing-
43 Ss: [heh heh heh]
44 S1: [we both said]
45 =WE BOTH said WHY:: we want to be project manager
46 and we [have to vote-]
47 Ss: [WE DID-]

Next, S2 took the turn and negated what S1 said at the beginning, 'not like we are up to the task' (line 28), and then agreed with the teacher that 'we asked everyone else' (line 29). Once again spotting the pronoun 'we', the teacher cut in with mild recognition - 'okay' - acknowledging their acceptance of the answer (Beach, 1993). The teacher further gave explicit comment by clarifying 'we' means 'both of you' (line 30) but not the rest of the students claimed as 'we all' (lines 5-6). That received a couple of answers and confirmation from students (lines 36-37). S2 first said 'no' but immediately agreed with the teacher. Hearing S2's controversial answer, S1 took the next turn and illustrated how they two (S1 and S2) worked with the rest of the group by giving explanatory references to different types of people: 'shy' and people who 'lack experience' (lines 40-41). Finally, S1 used a 'democratic' method (line 42) and asked the group to 'vote' (line 46).

Until then, the teacher guided the students towards the desired direction in a step-by-step manner by looking into the details of the referent 'we'. The teacher may have already known where they wanted to lead the students, and each turn the teacher took shows their reflexive elaboration of students' responses in an effort to unfold students' answers.

Part 5: The second question of "how" they worked with each other

48 T: okay
49 did you two not to decide to talk how you could encourage the others
50 bring their skill em (.) find it as an opportunity to do something?
51 or did you just see it as a ¯ comparative thing
52 S2: NO
53 we make sure everyone (.) has its task about things
54 we find each other [the jobs]
55 S1: [just because-]
56 T: So you ha:ve jobs for shy people [in your group]
57 S1: [Yeah]
58 S1: So >just because we have a project manager<
59 doesn't mean that everyone else couldn't get voted-
60 T: okay (.) so you have noted (.) you have shy people
61 so you agree to the job that it's suitable for [shy people]
62 Ss: [°yeah°]
63 T: °okay°
64 T: [°okay°] I'd like to kno:w wha:t they are
65 T: °okay° that's interesting
66 because I didn't have time to know who was talking to as a project manager
67 >but thank you < <for your INPUT>

As soon as the word 'people' was clarified, the teacher steered their questions to seek more information about the second question of 'how'. In other words, how the two students (S1 and S2) were selected (lines 49-51). This time, the teacher asked his question by giving two example cases: how they 'encouraged the others' or if they 'see it as a comparative thing'. In the next turn, S2 stated how they worked with others (lines 53-54), which was acknowledged by the teacher (line 56). That conveyed the teacher's support and approval, which had a positive effect on teacher-student rapport (Brown & Levison, 1987). In lines 58 and 59, S1 gave more details on why others should not be ignored, which was also agreed by the teacher (lines 60-61). By then, the teacher's tone was much smoother than before and there were also positive echoes from students (line 62), another positive indicator of the teacher-student rapport.

In lines 63, 64 and 65, the teacher employed 'okay' three times, which is typically found near the end of a sequence to deliberately move away from the discussion (Beach, 1993; Scheglofi & Sacks, 1973). These utterances were modified by the hedging expression 'I'd like to' (line 60) to express wishes for more details, which is usually a potential sign of

positive rapport (Blum-Kulka et al., 1989; Blum-Kulka, 1989). The teacher also complimented the students' contributions 'that's interesting' (line 65) and expressed appreciation for these contributions in saying 'thank you' (line 67) (Eisenstein & Bodman, 1986). Although the teacher expressed confusion which required students' further explanation in the future (line 66), he enhanced teacher-student rapport by conveying approval and positive feedback (Brown & Levinson, 1987).

Part 6: Rapport improvement

68 T: RIGHT
69 so no::w it's time for me to say
70 You would have noticed that I am um: (0.3)
71 I've been quite harsh on PEOPLE
72 >because that's what supposed to be<
73 >we have to see how:<
74 you worked with each other and selected the leader
75 >because in real life<(0.3)
76 >when you are leading a project<
77 you will find you have problems with the different people in your business
78 you may realize different people have different perspectives about you
79 at the same ti:me
80 they are going to be directing your successes
81 okay
82 I really appreciate the dynamics in discussion
83 and that you keep your project moving ahead

The final part of the conversation was the teacher's conclusion about the group's discussion. In this section, there were not as many linguistic features as in the previous parts since most of his utterances were in soft tones. This part fully embodied the teacher's control over the class and their role as a guide for the students. The teacher first acknowledged that they had been 'very harsh on people' (line 71) and then stated reasons for why they had done this purposely, which was to teach students how to work with each other to achieve shared goals for their future career. Now, it became clear that the Mandarin lesson was not just a lesson to learn the Chinese language and culture but to equip learners with teamwork skills, a higher and universal skill for their future, which taps into the core of education (Bortins, 2010). Specifically, by conducting activities in this Mandarin lesson, the teacher intended to increase students' awareness of the importance of teamwork skills. At the end of the lesson, the teacher expressed their appreciation again and encouraged the group, which was a good ending for the dynamic discussion.

5. Discussion

5.1 Power and rapport management

In this class, the teacher executed the four types of power (French & Raven, 1959; Spencer-Oatey, 2008) and successfully delivered a Mandarin lesson. Specifically, when the students were out of control and couldn't give satisfactory answers, the teacher raised their voice, added stress to key words and encouraged the students in order to control the group. These actions embodied the teacher's coercive power. When the teacher got the answers with respect to who was the group leader as well as how they chose the leader and how they worked with each other, the teacher praised them and appreciated their work, displaying reward power. During the entire conversation, the teacher expected the students to find the leader to complete their goal for that lesson, which shows legitimate power. The teacher guided students by asking different questions, which shows that the teacher knew which direction they wanted to guide students, indicating expert power. In this class, the teacher challenged students by questioning them to find out exactly what happened in the group. Although, the power between the teacher and students was asymmetrical (Spencer-Oatey, 2008; Blum-Kulka et al., 1985 Olshtain, 1989), the students spoke aloud about their ideas and thoughts and thus presented dynamic group work by proposing that there were two leaders instead of one. Furthermore, the teacher managed the teacher-student rapport very well during this lesson. At the beginning of the class, the teacher asked a question in response to the students' answer and then stimulated the discussion by making further requests, which threatened the students face sensitivities and their obligations (Ting-Toomey & Kurogi, 1998). When the students finally gave the expected answers, the teacher acknowledged their work and gave positive approval, which improved their rapport and also encouraged students to contribute more (Spencer-Oatey, 2008). At the end of the class, the teacher praised the students' dynamic discussion and gave the reason why he had been harsh with them in order to bring out the dynamics within the group and equip them with teamwork skills for their future. During the conversation, the teacher-student rapport went through different stages, starting from intense to highly intense and then progressively mitigating and finally positively evaluating the discussion. This shows the experienced teacher's control of the class to achieve the educational goals.

5.2 Speech acts

In terms of the speech acts, the teacher used more direct language to ask questions, give feedback and evaluations during this lesson. The teacher's utterances were more in a high voice and in stressed tones, which were not commonly found in students' utterances. Students' utterances showed less linguistic features than the teachers. The reason for this may be that the students are less powerful compared to the position of the teacher (Spencer-Oatey, 2008). The questions the teacher asked were more referential to seek information from students than the initial questions which simply asked students to display or provide certain information (Long & Sato; 1983). By doing so, it encouraged students to generate more output (Long & Sato; 1983; Brock, 1986; Dillon, 1990; Lynch, 1991). Comparing both, the teacher's discourse is full of character and authority.

5.3 Limitations

Conversation analysis provides insight into what is happening in classroom communication, which further offers "a slow-

motion detailed analysis of interaction that often occurs in real time in lightning speed" (Waring & Hruska 2011, p.453). However, there were several limitations of this study's use of conversation analysis, which can be improved upon in future research. Firstly, no facial expressions or gestures were recorded in this study due to the way the data were collected. Data would be richer if it were recorded by video instead of only by audio. However, if this is the case in future research, this needs to be agreed by students and approved by relevant parties, such as the school authorities and the students' parents. Secondly, it may be worth analysing the whole recording of the Mandarin classes to investigate the teacher's pedagogy in teaching Mandarin as a second language in the school. Thirdly, it may be interesting for future research to find out whether the students' background (i.e., gender, nationality) contributes to the dynamics in classroom interaction.

6. Conclusion

This paper investigated a conversational interaction between a teacher and a group in a Mandarin lesson in a London secondary school. The main objective of this lesson was to find a leader to represent the group work. The entire conversation was divided into six parts according to the content of the discussion. Specifically, in the first part, the teacher raised the first question asking for identity "who" the leader was in that group but didn't get an answer. In the second part, the teacher requested the same information about the leader of the group while trying to control the class as the group got out of control. In the third part, the teacher reformulated the "who" question by giving students detailed options: "did they" and "did somebody". It was not until the fourth part that students S1 and S2 gave the answer that not one person but two of them were selected as the group leaders. Then, in the fifth part, the teacher and students worked on the second question concerning "how" the leaders were selected and "how" they worked with the other members of the group. The final part was the teacher's feedback and evaluation of this group work.

This study explored the asymmetrical power relationship between the teacher and students and examined the teacher-student rapport management. It found that though the teacher's power and control over the class were high, the teacher in this case allowed the students to argue and discuss their ideas in order to help students give satisfying answers. In doing so, the students were encouraged to challenge the teacher's authority and spoke out their thoughts and decisions that it was not just one chosen leader but two of them. In this class, it was important for students to find out who their leaders were and how they worked together to achieve the target for that class but more important was the dynamics in the discussion and how students worked with different types of members within the group. Therefore, this Mandarin lesson was not just a language lesson, but also a lesson for students to gain teamworking skills for their future careers.

By applying conversation analysis, this study looked into the linguistic features and the language strategies in their speech acts, such as the tone changes, the turn-takings, how the questions were raised and answered. It found that the teacher used different strategies to guide students to answer the questions in-depth, such as by parsing, paraphrasing and reformulating. It also found that the teacher's language displayed more characteristics and authority compared to students. The majority of questions raised by the teacher were the referential type which is more effective in generating information from students. More importantly, all these language features served to one purpose, that was to educate pupils and lead a successful lesson.

In conclusion, this study enriches the research concerning students challenging teachers' power and also learning Mandarin as a second language at secondary school.

Appendix: CA transcription notations

[ ] Overlapped talk.
(.) A short untimed pause within or between utterances.
(2.0) Timed silence within or between adjacent utterances by a tenth of seconds
(bla bla) An uncertain hearing of what the speaker said
((words/laughter)) Scenic description and accounts such as background, skipped talk or non-verbal behaviour.
- Halting, or abrupt cutting-off of sound
= Latching that indicates no interval between adjacent utterances
, Phrase-final intonation (more to come)
. Falling intonation, e.g., sentence final
: Lengthened vowel sound (extra colons indicate greater lengthening)
°words° Relatively quieter than the surrounding talk
words Stressed syllable
CAPS Very emphatic stress.
$words$ Spoken in a smiley voice.
> < Utterance is delivered at a quicker pace than surrounding talk.
< > Utterance is delivered at a slower pace than surrounding talk
? Yes/no question rising intonation.

References

Atkinson, P., & Delamont, S. (1990). Procedural display and the authenticity of classroom activity: A response to bloome, puro, and theodorou. *Curriculum Inquiry, 20*(1), pp.63–69.

Barnes, D. (1976). *From communication to curriculum*. Harmondsworth: Penguin Education.

Beach, W. A. (1993). Transitional regularities for 'causal' 'okay' usages. *Journal of Pragmatics, 19*, 25–52.

Blum-Kulka, S., Danet, B., & Gherson, R. (1985) The language of requesting in Israeli society. In J.P. Forgas (Ed.) *Language and social situations* (pp.113-139). New York: Springer-Verlag,

Blum-Kulka, S., House, J., & Kasper, G. (Eds.). (1989) *Cross-cultural pragmatics: Requests and apologies. Norwood*, NJ: Ablex.

Bortins, L. (2010). *The core: Teaching your child the foundations of classical education*. Bortins. New York: Palgrave Macmillan.

Brock, C. A. (1986). *The effects of referential questions on ESL classroom discourse.* TESOL Quarterly 20, 46–58.

Brown, R., & Gilman, A. (1960). Pronouns of power and solidarity. In T. A. Sebeok (Ed.), *Style in language* (pp. 253-276). Cambridge, MA: MIT Press. [Reprinted in P. Giglioli (Ed.). (1972). *Language and social context* (pp. 252-282). Harmondsworth, England: Penguin Books.

Brown, P., & Levinson, S. (1978). Universals in language usage: Politeness phenomena. In E. Goody (Ed.), *Questions and politeness: Strategies in social interaction* (pp.56–289). Cambridge, England: Cambridge University Press.

Brown, P., & Levinson, S. (1987). *Politeness: Some universals in language usage. Cambridge.* England: Cambridge University Press.

Carlsen, W. S. (1991). Questioning in classrooms: A sociolinguistic perspective. *Review of Educational Research, 61*, 157–78.

Cazden, C. B. (1986). Classroom discourse. In: Wittrock, Merlin C. (Ed.), *Handbook of research on teaching* (pp. 432–463). MacMillan Publishing Company, New York,

Cazden, C. B. (1988). *Classroom discourse*. Portsmouth, NH: Heinemann Educational Books.

Cuff, E.C. & Payne, G.C.F. (1982). *Doing teaching: The practical management of classrooms.* London: Batsford Academic and Educational.

Diamantidaki, F., Pan, L. & Carruthers, K., (2018). *Mandarin Chinese teacher education: Issues and solutions.* London: UCL Institute of Education.

Dillon, J. T. (1990). *The practice of questioning*. Routledge, New York.

Drew, P., & Heritage, J. (1992). *Talk at work: Interaction in institutional settings*. Cambridge: Cambridge U.P.

Edwards, D., & Mercer, N. (1987). *Common knowledge: The development of understanding in the classroom*. London, England: Methuen.

Eisenstein, M. & Bodman, J, W. (1986) 'I very appreciate': expressions of gratitude by native and non-native speakers of American English. *Applied Linguistics, 7*(2), 167-85.

Emanuelsson, J., & Sahlstrom, F. (2008). The price of participation: Teacher control versus student participation in classroom interaction. *Scandinavian Journal of Educational Research, 52*(2), 205–223.

Fagan, D. S. (2012). Okay as a multifunctional resource for giving feedback in classrooms. *Language & Information Society, 16*, 9–41.

Fraser, B. (1990). Perspectives on politeness. *Journal of Pragmatics, 14*(2), 219–236.

French, J, R. P. & Raven, B. (1959) The bases of social power. In D. Cartwright (ed.), *Studies in social power* (pp. 150-167). Ann Arbor: University of Michigan.

Gunnarsson, B-L., Linnel, P., & Nordberg, B. (1997). *The construction of professional discourse*. New York, NY: Routledge.

Hall, J. K., (1997). Differential teacher attention to student utterances: the construction of different opportunities for learning in the IRF. *Linguistics and Education 9,* 287–311.

Heap, J. (1982). Understanding classroom events: A critique of Durkin, with an alternative. *Journal of Reading Behavior, 14*, 392-4 I I.

Heritage, A., Atkinson, J. M., & Heritage, J. (1984). Structures of social action: Studies in conversation analysis. In Atkinson, J. M. & Heritage, J. (Eds.) *Studies in emotion and social interaction.* Cambridge University Press

Holmes, J. (1990) Apologies in New Zealand English. *Language in Society, 19,* 155-199.

Holtgraves, T., Srull, T, K. & Socall, D. (1989) Conversation memory: the effects of speaker status on memory for the assertiveness of conversation remarks. *Journal of Personality and Social Psychology, 56*(2), 149-160.

Holtgraves, T. & Yang, J.-N. (1990) Politeness as universal: Cross-cultural perceptions of request strategies and inferences based on their use. *Journal of Personality and Social Psychology, 59*(4), 719-729.

Houtkoop-Steenstra, H. (2000). *Interaction and the standardized survey interview: The living questionnaire.* Cambridge University Press, New York.

Lako, R. (1973). The logic of politeness, or minding your p's and q's. *Chicago Linguistics Society, 9*, 292–305.

Lee, Y. (2007). Third turn position in teacher talk: Contingency and the work of teaching. *Journal of Pragmatics, 39*(6), 1204-1230.

Lemke, J. L. (1990). *Talking science: Language, learning, and values.* Norwood, NJ: Ablex.

Li, H. (2013). Student deviations and missed learning opportunities in an IRF sequence: A single case analysis. *L2 Journal, 5,* 68–92.

Li, Q. (2019). Managing Rapport in the Context of Classroom Talk: A Case Study of a London Secondary School. *Journal of Applied Learning & Teaching, 2*(Sp. Iss.1), 39-47.

Lim, T.-S. & Bowers, J. W. (1991) Facework: Solidarity, approbation, and tact. *Human Communication Research, 17* (3), 415-50.

Long, M., & Sato, C. (1983). Classroom foreigner talk discourse: Forms and functions of teachers' questions. In H. Seliger 8c M. Long (Eds.), *Classroom oriented research in second language acquisition* (pp. 268-285). Rowley, MA: Newbury House.

Long, M. H. (1983). Linguistic and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition, 5*, 177-193.

Lynch, T. (1991). Questioning roles in the classroom. *ELT Journal, 45*(3), 201–210.

Markee, N., & Kasper, G. (2004). Classroom talks: An introduction. *The Modern Language Journal, 88*(4), 491–500.

McHoul, A. (1978). The organization of turns at formal talk in the classroom. *Language in Society, 7*, 183–213.

Mehan, H. (1979a). *Learning lessons: Social organization in the classroom*. Cambridge, MA: Harvard University Press.

Mehan, H. (1979b). 'What time is it, Denise?': Asking known information questions in classroom discourse. *Theory into Practice, 18*, 285–94.

Nassaji, H., & G. Wells. (2000). What's the use of 'triadic dialogue'? An investigation of teacher-learner interaction. *Applied Linguistics, 21*, 333–63.

Nystrand, M. (1997). Dialogic instruction: When recitation becomes conversation. In: Nystrand, M., Gamoran, A., Kachur, R., & Prendergast, C., (eds) *Opening dialogue: Understanding the dynamics of language and learning in the English classroom,* (pp. 1–29). New York; Teachers College Press.

Olshtain, E. (1989). Apologies across languages. In Blum-Kulka, S., House, J. & G.Kasper (eds) *cross-cultural pragmatics: Requests and apologies*. Norwood, NJ: Ablex, 155-73

Olshtain, E., & Cohen, A. D. (1983). Apology: A speech-act set. In N. Wolfson & E. Judd (Eds.), *Sociolinguistics and language acquisition* (pp. 18-35). Rowley, MA: Newbury House.

Sarangi, S. & Roberts, C. (Eds.). (1999). *Talk, work and institutional order: Discourse in medical, mediation, and management settings.* Berlin, Germany: Mouton de Gruyter (Language, Power and Social Process Series)

Schegloff, E. A., & Sacks, H. (1973). Opening up closings. *Semiotica, 8,* 289-327. http://dx.doi.org/10.1515/semi.1973.8.4.289

Sharrock, W., & Anderson, R. (1982). Talking and teaching: Reflective comments on in-classroom activities. In: Cuff, E.C. & Payne, G.C.F, (Eds.), *Doing teaching: The practical management of classrooms* (pp. 170–183). Batsford Academic and Educational, London,

Spencer-Oatey, H., & Xing, J. (1998). Relational management in Chinese-British business meetings. In S. Hunston (Ed.), *Language at work (*pp. 31-46). Clevedon, England: British Association for Applied Linguistics in association with Multilingual Matters Ltd.

Spencer-Oatey, H., & Xing, J. (2004). Rapport management problems in Chinese-British business interactions: A case study. In J. House & J. Rehbein (Eds.), *Multilingual communication* (pp. 197-221). Amsterdam, The Netherlands: Benjamins.

Spencer-Oatey, H. (Ed.). (2008). *Culturally speaking: Culture, communication and politeness theory* (2nd ed.). New York, NY: Continuum International Publishing Group.

Spencer-Oatey, H., & Xing, J. (2008). Issues of face in a Chinese business visit to Britain. In H. Spencer-Oatey (Ed.), *Culturally speaking: Culture, communication and politeness theory* (2nd ed.) (pp. 258-273). London, England: Continuum.

Spencer-Oatey, H. (2015). Rapport Management Model. In Tracy, K., Sandel, T., & Ilie, C. (Ed.), *The international encyclopedia of language and social interaction.* John Wiley & Sons, Inc.

Ten-Have, P. (2007). *Introducing qualitative methods. Doing conversation analysis: A practical guide* (2nd ed.). Thousand Oaks, CA, : Sage Publications Ltd.

Ting-Toomey, S., & Kurogi, A. (1998). Facework competence in intercultural conflict: An updated face-negotiation theory. *International Journal of Intercultural Relations, 22*(2), 187-225.

Waring, H. Z. (2013a). 'How was your weekend?': Developing the interactional competence in managing routine inquiries. *Language Awareness, 22*(1), 1–16.

Waring, H. Z. (2013b). Managing competing voices in the language classroom. *Discourse Processes, 50*(5), 316–338.

Waring, H. Z., & B. Hruska. (2011). Getting and keeping Nora on board: A novice elementary ESOL student teachers' practices for lesson engagement. *Linguistics and Education, 22,* 441–55.

Wells, G. (1993). Reevaluating the IRF sequence. A proposal for the articulation of theories of activity and discourse for the analysis of teaching and the learning in the classroom. *Linguistics and Education, 5,* 1–17.

Young, R. (1992). *Critical theory and classroom talk*. Multilingual Matters Ltd, Clevedon, UK.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Influence of parent-teacher interactions on the initiation of sexual practices among teenagers: A qualitative study of Kawuku Secondary School, Mukono District, Uganda

Ssuka Jonathan Kizito[A] [A] *Lecturer, TEAM University and Project Officer, VODA, Uganda*

Mbabazi Scovia G[B] [B] *Lecturer, Faculty of Health Sciences, Uganda Martyrs' University*

Omona Kizito[C] [C] *Lecturer, Faculty of Health Sciences, Uganda Martyrs' University*

Keywords

Influence;
initiation of sexual practices;
parent-teacher interaction;
sexual debut;
teenagers.

Article Info

Received 10 June 2020
Received in revised form 21 October 2020
Accepted 12 November 2020
Available online 12 November 2020

DOI: https://doi.org/10.37074/jalt.2020.3.2.21

Abstract

Introduction: Several studies recommend a multisectoral approach to promote positive sexual behaviors among young people. Minimal literature exists on the influence of parent-teacher interaction on sexual behaviors of young people.

Objective: To examine the influence of parent-teacher interaction on initiation of sexual practices among teenagers in Kawuku Secondary School (S.S.), Mukono District, Uganda

Methods: Qualitative phenomenological design was used. The respondents were: 12 parents who had children in the school, six teachers who had been in the school for at least three years and 18 teenagers 13-19 years of age from the school. In-depth structured interview and focus group discussions (FGDs) were held. We looked at whether parents interacted with teachers on matters regarding their children's sexual behaviors, the frequency and content discussed and how this impacted on the sexual decisions and practices of young people concerned.

Results: Interaction facilitated the flow of protective information and guidance that delayed sexual debut and improved the sexual behaviors among the teenagers. Most of the teenagers whose parents were in close interaction with their teachers attributed their present sexual behaviors to the raised consciousness and continuous monitoring and communication from either party. A number of barriers hindered effectiveness of parent-teacher interaction. These included lack of appropriate sexual information among parents, parents' fear to discuss sexual experiences with young people, poor parenting, limited confidentiality among teachers and so on.

Conclusion: When parents have the right sexual information and interact well with teachers on matters regarding sexual behaviors of their children, positive sexual behaviors and delayed sexual debut among teenagers is facilitated.

1. Introduction

1.1 Background of the study

Early sexual initiation is defined differently by various scholars. For instance, Durowade et al. (2017) defined it as having had first sexual intercourse at or before the age of 14 years by teenagers. The problem of early sexual debut remains a serious recurring public health issue with negative psychosocial and health outcomes. The age at which adolescents initiate their first sexual debut is increasingly becoming lower and varies from place to place among different individuals (Durowade et al., 2017).

The average age of first sexual debut is said to be 16 years and this young age makes it a serious public health issue (WHO, 2018). The World Health Organization (2018) estimated that over 16 million teenagers are sexually active and that many are affected by teenage pregnancy and Sexually Transmitted Diseases (STDs). This is partly attributable to the lack of proper sexual information and guidance from caretakers to young people.

In Africa, it is indicated that 45% of women aged 20-24 years reported to have become pregnant for the first time by the age of 18 years. Of these, areas affected by wars experience the biggest proportion of girls with unwanted teenage pregnancy. This is attributable to the lack of sufficient and correct information on reproductive health, sexual harassment practices inflicted on young girls and the vicious cycle of poverty. Poverty, in particular, has left many young people fending for survival, putting them at risk of indulging in risky sexual practices (Economic Policy Research Centre, 2020).

Research shows that in East Africa, almost 10% of young women give birth by the age of 16 years (Neal et al., 2015). Reports from Uganda indicate that almost half of women aged 20–49 married before they were 18 years which is evidence for early sexual initiation. It is further stated that rural girls fare worse than their urban counterparts in many ways. For example, rural adolescent girls are more likely to initiate their sexual debut during their teenage years and are also more likely to be victims of teenage pregnancy. Uganda reports the highest proportion of women giving birth before the age of 20 (63%) (UBOS, 2011, 2012, 2014; ICF International, 2012).

It is indicated by several scholars that by the time adolescents complete high school, 60% of them have had sexual intercourse (Renzaho et al., 2017). This is attributable, among many other factors, to lack of appropriate sexual information and guidance, media exposure and rampant poverty (Baumgartner et al., 2009; Acharya et al., 2010; Durowade et al., 2017). This exposes young people to greater risks of Sexually Transmitted Diseases and Sexually Transmitted Infections (STD/STI), teenage pregnancy and related consequences.

Communication about sexuality issues with young people by their caretakers is regarded as very crucial for improving their knowledge, attitudes and decisions related to sexual activities. It is indicated by several scholars that regular sexual communication with young people sharpens their decision-making capacity and improves their sexual negotiation skills which lessens risks of engaging in dangerous sexual behaviors (Bastien et al., 2011). Several studies confirmed that regular communication with young people by their caretakers on sexuality issues allows them to delay sexual intercourse and improve on the general sexual behaviors. These positive behaviors include use of condoms, reducing the number of sexual partners and use of contraceptives as a means of preventing unwanted pregnancies and elimination of contraction of STDs especially among sexually active young people (Namisi et al., 2009).

Despite of these studies on sexuality communication with young people, little, if any, is documented on the influence of the role that can be jointly played by both parents and teachers as one strategy for continuous guidance to young people on matters related to their sexuality. Several studies suggested a stakeholder approach to the problems of early sexual debut and teenage pregnancy to include parents, teachers, nurses and other stakeholders who have the greatest influence and spend the most time with the teenagers (Economic Policy Research Centre, 2020). The fact that teachers spend almost more time with these young people as compared to their parents creates a need for joint effort between parents and teachers working together in molding the sexual behaviors of the teenagers as they grow. There was a need to understand how this interaction influences the initiation of sexual practices and the general sexual behaviors of teenagers.

The aim of this study therefore, was to examine how parent-teacher interaction influences the initiation of sexual practices among teenagers in Kawuku S.S and how this interaction can be adequately utilized to delay and promote good sexual behaviors among teenagers in Kawuku S.S, Mukono District, Uganda. Based on these findings, strategies for promoting the utilization of this interaction were to be identified and the gaps for future research are identified.

1.2 Secondary objective

The purpose of the study was to examine the influence of parent-teacher interaction on initiation of sexual practices among teenagers at Kawuku S.S.

1.3 Specific objectives

The study specifically sought:

1) To find out the perception of teenagers on parent-teacher interactions related to their sexual life in Kawuku S.S.
2) To establish the contribution of parent-teacher interactions on initiation of sexual practice among teenagers, in Kawuku S.S.
3) To examine the influence of parent-teacher interactions on the sexual behaviors of teenagers in Kawuku S.S.

2. Literature review

2.1 Information – motivation – behavioral

To examine teenagers' vulnerability to risky sexual behaviors, operationalized here as early sexual initiation, the researchers adopted two theoretical models: The Information-Motivation-Behavioral Skills (IMB) model developed by Fisher and Fisher (1992). This model has demonstrated effectiveness in predicting risk behaviors, including sexual initiation, and has been particularly useful in designing HIV intervention programs. The model specifies that individuals will engage in self-protective behaviors, such as delaying sexual debut, when they know that such behaviors reduce consequences of sexual activity such as pregnancy and risk of infection. They become motivated to engage in the behaviors and have the requisite skills and self-efficacy to do so (Fisher & Fisher, 1992; Sunny et al., 2019).

Several studies (Bastien et al., 2011) showed that school environment, community norms and participation in community festivals are positively or negatively associated with risky sexual behaviors; the majority of these studies found that school-based programs, and the resources made available to students within schools, reduced the likelihood of early sexual debut and other risky sexual behaviors. In this study, the parent-teacher interaction as a school-community based program has been studied to highlight how it influences the teenagers' sexual initiation stage.

Many of the available studies have suggested a stakeholder approach in promoting positive sexual behaviors to include parents, teachers, nurses and other stakeholders who have the greatest influence and spend the most time with the teenagers (Economic Policy Research Centre, 2020). The study emphasized the importance of various stakeholders like the community, the school, the health facilities and the parents working hand in hand to help the young people addressing their day to day sexual problems that put them at risk of engaging into early sexual practices (Economic Policy Research Centre, 2020).

2.2 Parent-teacher interaction

Parent-teacher interaction in this case was used to mean communication between parents and teachers on sexual matters of the young people under their control. Other scholars define parent-teacher interaction as a way to engage parents in developing interaction between family, school and community. It is a channel to raise parental awareness regarding benefits of parental engagement in educational process of children. In views of Akhter (2016), parental engagement consists of collaborations between families, schools and communities, raising parental awareness of the benefits of involving them in their children's education, and providing them with the skills to do so. Parents-teacher interaction helps parents in defining the boundaries and functions of school, community and family in educational process of children (Tabong et al., 2018). Contrary to that, Anderson (2017) defined this interaction as a way to create conditions in which children learn more effectively and they take education beyond the school boundaries.

Parents and teachers interact because of their shared responsibility for the welfare of the children in their care. Research indicates that teachers value parental involvement in their students' education. There is also evidence that parents place a great deal of trust in their children's teachers. This interaction, with significant influence on the learning outcomes of students, occurs within a complex set of legal frameworks and cultural contexts (Anderson, 2017). This study therefore, aims at using this interaction on molding the sexual behaviors of teenagers as a way of creating an environment to delay sexual initiation.

2.3 Early sexual initiation

Although most people in contemporary developed nations experience sexual initiation sometime during adolescence, the relative timing during adolescence varies from country to country. In the United States, 40.8% of tenth-graders (usually 15-years-old) reported having had sexual intercourse in 2001. Early sexual initiation is taken to be normal in some communities, especially in some states of the U.S. (Nield et al., 2013).

Early sexual debut is defined by different scholars in various ways. However, most definitions define it as having had first sexual intercourse at or before age 14 years. Early sexual debut exposes young people to risks such as HIV, other STIs and to teenage pregnancy (Durowade et al., 2017).

How one defines 'early' sexual intercourse, however, is not clear. Whether "early" debut should be defined according to the statistical distribution of age at first intercourse within the country of residence, or whether 'early' should be defined by a developmentally driven health standard that reflects adverse consequences to the individual stemming from physical and/or emotional immaturity, has not been adequately examined in the literature (Economic Policy Research Centre, 2020; Motoyama et al., 2016; Mugumya & Omona, 2020).

In a study whose aim was to explore the association between early sex initiation and subsequent unsafe sexual behaviors and risks among Chinese female undergraduates (Li et al., 2015), out of 4,769 participants, 863 (18.1%) reported having had sexual intercourse. The mean age of sexual debut was 19.3 (±1.7) years. Females initiating sex earlier were more likely to have first sex with men who were not their "boyfriends" and less likely to take contraception, to use a condom at first encounter or to use contraception consistently in the past year (Li et al., 2015).

In the U.S., sexual debut before age 16 is generally considered early, based on both the statistical distribution and positive associations with sexually transmitted infections, unintentional pregnancy, and psychological and social problems (Langille, 2007). This view is similar to those of Eaton et al. (2008) and Cavazos-Rehg et al. (2009). The World Health Organization (WHO, 2018) defined early sexual intercourse as intercourse initiated before the age of 15 years. In this study, the investigators also defined early sexual debut as debut before the age of 15 years.

2.4 Perceptions on the parent-teacher interaction

In a study where researchers used in-depth interviews among young people in South Africa, it was found that most of adolescents had positive attitudes to parent-adolescent communication. Respondents wanted parents to talk about sex, but discussions with parents on sexual behavior topics were rare (Muhwezi et al., 2015; Mugumya & Omona, 2020).

One of the factors associated with sexuality communication relates to timing and parental perceptions that their children have already had their sexual debut. One study in Tanzania found that parents tended to wait until their daughters were in secondary school to initiate discussions about sexuality, due to the assumption and expectation that those still in primary school were not sexually active (Maly et al., 2017). Consequently, it was reported that there is increased secrecy in sexual relationships and also increased difficulty in seeking and accessing sexual information and contraceptives for fear of being found to be sexually active. A study conducted among women in Nigeria reported that 41% of respondents believed sexuality education should commence between the ages of 6-10 years, whilst 32% favored starting discussions with children between the ages of 11-15 years (Acharya et al., 2018). Others, however, based the decision to initiate a discussion related to sexuality on observations of changes in behavior which are perceived to indicate the onset of sexual activity (Wanje et al., 2017).

Similarly, a study of Nigerian parents found that parents preferred to be the initiators and dominators of discussions and perceived that if their child did so, it meant they were sexually active or planning to be. Parents in this study reportedly used imprecise terminology and tended to employ warnings and threats about sexuality rather than engage their child in dialogue (Baumgartner et al., 2009). In rural South Africa, similar findings were reported concerning the style of communication which tended to be perceived as being judgmental, proscriptive, and negative towards young people's sexuality (Boonstra et al., 2011). According to the respondents in this study, it was not the act of discussing sexuality with parents that young people were opposed to per se; rather, it was the style that was focused on and identified as a barrier to discussion.

In rural South Africa, similar findings were reported concerning the style of communication which tended to be perceived as being judgmental, proscriptive, and negative towards young people's sexuality (Boonstra et al., 2011). According to the respondents in this study, it was not the act of discussing sexuality with parents that young people were opposed to per se; rather, it was the style that was focused on and identified as a barrier to discussion.

In terms of preferences, findings from studies found that young people prefer sexuality communication to take place with parents of the same sex. The South Africa-Tanzania (SATZ) study conducted among young people aged 11-17 years reported that overall, 44% of participants preferred to communicate with mothers about sexuality, while 15% preferred fathers (Breuner, 2016). Mothers were the preferred communication partner by the majority of female adolescents in both Tanzania and South Africa. In Cape Town, 31% preferred discussing with mothers, and 22% stated a preference for fathers, while in the other two sites, a greater proportion of males preferred discussing with fathers in comparison to mothers (47% and 27% in Dar es Salaam and Mankweng, respectively). Another study in Tanzania found that among in- and out-of-school males, 11% and 10% respectively selected fathers as a preferred partner for communicating about sexuality (Wamoy et al., 2010). Among in- and out-of-school females, the study found that mothers were the first choice by both groups, with 44% and 37% of in- and out-of-school females reporting mothers as the preferred sexuality communicator, respectively. From a parental perspective, a study of Nigerian parents found that they also preferred same sex discussions with their children (Crichton et al., 2012).

In spite of these findings which tend to favor mothers as the preferred sexuality communicators, qualitative findings suggest that mothers are not always perceived in a positive light. For instance, focus group findings from young people in Ghana aged 14-17 years classified mothers into four categories: those who are approachable (and in the minority), those who tended to brush off questions and suggest that such discussions should take place with someone else (such as another family member), those who reacted by shouting when sexuality discussions are initiated, and those who seemed to have difficulty maintaining confidentiality and were subsequently labeled 'gossipers' (Donaldson et al., 2013). In these focus group discussions, it was also found that fathers were often labeled as 'tyrants' who lacked listening skills and were prone to threaten or take action against their children's friends of the opposite sex.

Studies also investigated young people's perspectives on barriers to sexuality communication with their parents. A number of studies identified parental lack of knowledge of sexual and reproductive health as a barrier to communicating with their children. For instance, one study in Nigeria found that 64% of secondary school students perceived their mothers as lacking sufficient knowledge, while 87% thought fathers lacked knowledge (Honig et al., 2012). In identifying other barriers to communication, this study found that 62.3% thought that their parents are too preoccupied to talk about sex, while 59% believed their parents would argue if they were to talk about sex. In addition, 30% thought their mother would think they were interested in experimenting with sex if they were to talk about it, whilst 69% believed their father would get this impression.

2.5 Contribution of parent-teacher interactions on initiation of sexual practices among teenagers

A number of studies found out that communication about sexuality between parents or caregivers and offspring is a strong protective factor for a range of sexual behaviors, including a delayed sexual debut, particular for females (Hindine & Fatusi, 2009). Studies focusing on parent-child communication have focused on a range of processes that may influence effectiveness in decreasing sexual risk behavior among young people such as frequency of discussions and perceptions of quality and comfort of communication (Hoffman et al., 2006; Honig et al., 2012).

The timing of communication is also of importance and is most likely to be effective prior to sexual debut to reinforce protective factors but may also facilitate behavior change in those already sexually active (Johnson-Motoyama, 2016). The content of the message and how it is transmitted have also been identified as being particularly important (Magowe et al., 2017). Some studies have investigated the perceptions of young people or parents separately, whilst other studies have sought to examine differences in self-reports (Boonstra et al., 2011; Breuner et al., 2016; Crichton et al., 2012). Historically, the taboo nature of sexuality discussions between adults, in particular parents, and young people in sub-Saharan Africa has been well documented (Donaldson et al., 2013; Hindine & Fatusi, 2009). In several countries in sub-Saharan Africa, direct parental involvement in the sexual socialization of children in the past has been described as minimal. Rather, the extended family, including grandparents and aunts, were instrumental for imparting the necessary knowledge and skills relevant for sexual relationships (Hoffman et al., 2006). With increased urbanization and social change processes, however, the family unit and consequently adolescent socialization may be impacted.

Kim et al. (2009) examined factors that promote parent-child discussions about sex topics among a sample of 1,066 dyads of African-American mothers and their 9 to 12-year-old children who participated completing computer-administered surveys. After controlling for all other covariates, mothers' sexual communication responsiveness (i.e., knowledge, comfort, skills, and confidence) was the most consistent predictor of discussions. Mothers with higher responsiveness had significantly increased odds of discussions about abstinence, puberty, and reproduction, based on both mother and child reports. In addition, a child's age, pubertal development, readiness to learn about sex, and being female were positively associated with an increase in the odds of discussions in most models. Findings indicate that encouraging parents to talk with their children early may not be sufficient to promote parent–child sex discussions. Parents also need the knowledge, comfort, skills, and confidence to communicate effectively and keep them from avoiding these often difficult and emotional conversations with their children.

2.6 Influence of parent-teacher interaction on teenagers' sexual behavior after initiation

Adolescents who have a positive relationship with their parents are less likely to initiate sex early (Johnson-Motoyama et al., 2016; Magowe et al., 2017). There is growing evidence showing that various parenting dimensions like connectedness, love, material support, behavioral control, monitoring, and parent-adolescent communication are positively associated with reduced levels of risk-taking among adolescents (Bastien et al., 2011).

The 10–14 age range is a time of change, vulnerability and opportunity for adolescents to learn and develop skills to help them build patterns of health-maintaining behaviors. It is a time when adolescent can best be protected from potential risks by parents or caregivers who are closely involved in their lives (WHO, 2018).

Literature from Uganda on the role of parent-adolescent communication in promoting healthy sexual behavior among adolescents is scarce (Economic Policy Research Centre, 2020). Other than some attempts of 'Ssenga' (biological sisters of fathers) and 'Kojja' (biological brothers of fathers) (UBOS, 2001), the little information available suggests that parents are ill-prepared for this task (Kibombo et al., 2008). Like elsewhere in sub-Saharan Africa (SSA), parental discussions of sexuality issues with their children are a taboo (Muhwezi et al., 2015; Miller et al., 2016).

This task is often relegated to other family members, notably paternal aunties in Buganda (Kibombo et al., 2008). In talking about sexuality, parents are often known to communicate with their children through arousal of fear. Parents in Uganda are known to be strict, particularly with girls, which prompts many to hide their intimate or sexual relationships, thereby exacerbating their vulnerability (Muhwezi et al., 2015; Mugumya & Omona, 2020). Knowledge about HIV transmission and prevention, pregnancy prevention and condoms seem to be very low among young adolescents (UBOS, 2011).

Further still, several researchers have begun to investigate parents' views on the media's role in influencing adolescent sexual behaviors (Collins et al., 2011) and the importance of both parents and the school system working with adolescents to delay sexual activity (National Academies of Sciences, Engineering, and Medicine, 2016).

In contrast, Dessiel, Berhane and Worku (2015) expressed that parents should be the primary source of sex education for their children, but they acknowledged that many parents have difficulty fulfilling that role due to both knowledge gap and cultural barriers which calls for a need to work hand in hand with teachers who spend most of the time with the teenagers. Such an approach is supported by ecological theorists who argue that to change the attitudes and behavior of adolescents successfully, one must consider not only the individual as the basis for change but also the various systems to which the child may be exposed.

3. Methodology

This was a purely qualitative phenomenological study design where in-depth structured interviews and focus group discussions (FGDs) were used. It was conducted among 36 participants, including: 12 parents who had children in the studied school; six teachers who had been in Kawuku Secondary School for at least three years and 18 teenagers between 13 to 19 years of age from that rural secondary school. Two focus group discussions were conducted among teenagers in groups of nine making a total of 18 altogether. A group of six parents who were almost in the same locality were involved in a focus group discussion whereas six out of 12 parents were individually interviewed. Six of the 18 teenagers who participated in the FGDs were interviewed on an individual basis before the FGD to obtain a deeper understanding of their perceptions about the phenomena under study.

Ethical considerations are very important in such research and were taken into account through obtaining informed consent from respondents and the maintenance of confidentiality.

4.0 Results and discussion

4.1 Perception of teenagers on parent-teacher interactions

Although some teenagers had issues with limited confidentiality and deprivation of their privacy by this interaction on matters related to their sexual health, the majority acknowledged the importance of this approach. They stressed that it provides them with appropriate avenues to get right information, support and guidance from trustworthy sources.

> "I would prefer each one working on their own either at home for parents or teachers at school. Because parents at times reveal our private life to teachers who keep on talking about us! Whenever you make a mistake, the teacher relates it to what he/she knows about you... Sometimes, they get wrong information about us which we cannot refute. Our parents think whatever the teachers say is right yet teachers also sometimes get wrong information about us." [Participant 7, a female teenager aged 15].

> "I did not take it bad because I knew that my parents have the responsibility to monitor my behavior and the teacher is also responsible for my future. So when I learnt that my parent and teacher interact and discuss about me… I just understood that now, at both home and school there is someone watching me. This has helped me to be careful and to modify my sexual behaviors." [Participant 9, a male teenager aged 18]

This is in the same lens as Honig's (2012), who argued that children need 'askable' adults in their lives from an early age and also in line with the guidelines from the World Health Organisation on the proper upbringing of children (WHO, 2018). Therefore, teenagers appreciate the need for parents and teachers working together to promote their (teenagers') delayed sexual debut and general sexual behaviors (Dessiel et al., 2015). In yet another study (Mugumya & Omona, 2020), it was found that parents were 1.56 times more likely to be actively involved in talking to their adolescents about sexuality education compared to other people (APR=1.56; CI= 1.22-1.99; p-value < 0.001). Having both parents made it 1.22 times more likely to equally talk to their children about sexuality and reproductive health (CPR=1.22; CI=1.07-1.40; p-value= 0.004). Mothers were 1.64 times more likely to be involved in teaching their children on this subject matter than fathers (APR=1.64; CI=1.15-2.34; p-value 0.006) (Mugumya & Omona, 2020).

4.2 Contribution of parent-teacher interactions to the initiation of sexual practices among teenagers

While the interaction was not common to all participants, the study revealed that those teenagers, whose parents and teachers had been in close contact and who were watching them, claimed to have changed their sexual behaviors. Some teenagers attributed their sexual status on the communication they received either from both their parents and teachers or one of them. This interaction was mentioned for increasing availability of information, guidance and support to teenagers and a sense of being watched as a teenager.

> "I think it has helped me to delay sexual practice because of their advice and warnings to me on how to control my sexual desires and keeping good friends." [Participant 14, a female teenager aged 15]

> "Personally, I was very stubborn and my parents alone had failed to calm me down despite the punishments. Later my father asked the head-teacher to help them with me. I felt bad about it, but this later helped me because even up to now I have never had sex because of what they both told me. I was even selected and trained as a school counselor to help my fellow teenagers at school" [Participant 1, a male teenager aged 17].

This is consistent with earlier studies that emphasize parent involvement in preventing risky sexual behaviors among teenagers (Silk & Romero, 2014; Muwhezi et al., 2015).

4.3 Influence of parent-teacher interactions on the sexual behaviors of teenagers

The findings revealed that teenagers' sexual decisions are greatly influenced by regular communication from different guardians like parents and teachers. This was indicated by teenagers that after knowing they are being watched both at home and at the school, many became more considerate sexually.

> "I regret losing my virginity at a tender age… I wish my parents had talked to me before initiation it would help me to delay. However, the regular guidance I obtain from my teachers and parents has helped me to change my sexual behaviors. I'm able even to encourage my fellow girls to keep their virginity." [Participant 3, a female aged 17]

> "I'm still virgin… I attribute this to the guidance I receive from both my parents and sometimes from teachers. ... my parents are in close contact with my teachers. The parents fear discussing some issues with me but teachers do so."[Participant 18, a female teenager aged 16]

This is in line with what other research findings such as the ones by Mohajan (2018), Silk and Romero (2014), and Wamoy et al. (2010). They explained that parent's conversations with children regarding sex communication serves as a primary factor in children's understanding of sex, delaying of sexual debut, and a reduced risk that children will engage in risky sexual behavior.

This study found that there is need for training of parents and teachers on sex-related aspects of teenagers to enhance their capacity in facilitating awareness rising among teenagers about the risk factors for, and implications of early sexual initiation.

> "I'm not aware of now that there is any programme to discuss the sexual behaviors of our children at school. But I think it should be a good practice if it is embraced by the school for teachers to work with parents. However, we parents need more training on sexual information and how to talk to young people." [Participant 17, a Parent]

This is in line with Kassahun et al.'s (2019) findings, that raising awareness among students on the risk factors associated with early sexual debut through teachers, parents, religious leaders and other stakeholders is important in promoting delayed sexual initiation and associated factors among preparatory and High School students. A respondent asserted:

> "I think there should be a strong relationship between our parents and teachers for this interaction to be effective." [Participant 3, a female teenager]

5.0 Conclusion

The scope of developing sexuality education during a child's primary school years remains a relative challenge for both parents and teachers. Sexuality educations have limited legitimacy in many communities and thus can meet resistance from teachers tasked with its implementation. In order to enhance ownership of sexuality education, local concerns of stakeholders about the contents of the curriculum and the parent-teacher roles must be taken into consideration. Not addressing these challenges may continue to undermine sexuality education by both parents and teachers.

This study confirmed that when parents have the right sexual information and interact with teachers on sex-related matters of their children, it allows teenagers to obtain the necessary information from trusted sources. This promotes positive sexual behaviors and delays sexual debut among teenagers. The study, however, revealed a knowledge gap and a need for training of both parents and teachers on how to communicate with young people on sexuality-related matters. The findings, therefore, provide a basis upon which future studies and research programs can begin to draw on how this interaction can best be utilized in promoting good sexual behaviors of young people.

Conflict of interest

The authors declare no conflict of interest whatsoever.

References

Acharya, D. R., Bhattarai, R., Poobalan, A., Teijlingen, V. E., & Chapman, G. (2014). Factors associated with teenage pregnancy in South Asia. *Health Science Journal, 4*(1), 3-14.

Anderson, M. (2017). The parent/teacher relationship and the effectiveness of the teaching important parenting skills (TIPS) program for enhancing parents' knowledge about child development. *Theses and Dissertations*. 2503.

Akhter, N. (2016). Parent teacher interaction in elementary schools: Current status and issues. *Journal of Elementary Education, 26*(2), 1-13.

Bastien, S., Kajula, L. J. & Muhwezi, W. W. (2011). A review of studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa. *Reproductive health, 8*(1), 1-17.

Baumgartner, J. N., Geary, C. W., Tucker, H., & Wedderburn, M. (2009). The influence of early sexual debut and sexual violence on adolescent pregnancy: A matched case-control study in Jamaica. *International perspectives on sexual and reproductive health, 35*(1), 21-28.

Boonstra, D. (2011). Teen pregnancy among young women in foster care: A primer. *Guttmacher Policy Review, 14*(2), 8-19.

Breuner, C. C. & Mattson, G. (2016). Committee on adolescence: Committee on psychosocial aspects of child and family health. Sexuality education for children and adolescents. *Pediatrics, 138*(2), 1-13.

Cavazos-Rehg, P. A., Krauss, M. J., Spitznagel, E. L., Schootman, M., Bucholz, K. K., Peipert, J. F., Sanders-Thompson, V., Cottler, L. B. & Bierut, L. J. (2009). Age of sexual debut among US adolescents. *Contraception, 80*(2), 158-162.

Collins, R. L., Martino, S., & Shaw, R. (2010). *Influence of new media on adolescent sexual health*. Working Paper WR-761). Santa Monica, CA: Rand Health.

Crichton, J., Ibisomi, L., & Gyimah, S. O. (2012). Mother–daughter communication about sexual maturation, abstinence and unintended pregnancy: Experiences from an informal settlement in Nairobi, Kenya. *Journal of Adolescence, 35*(1), 21-30.

Dessiel, Y., Berhane, Y. & Worku, A. (2015). Parent-adolescent sexual and reproductive health communication is very limited and associated with adolescent poor behavioral beliefs and subjective norms: Evidence from a community based cross-sectional study in eastern Ethiopia. *PloS one, 10*(7), 1-14.

Donaldson, A. A., Lindberg, L. D., Ellen, J. M. & Marcell, A.V.

(2013). Receipt of sexual health information from parents, teachers, and healthcare providers by sexually experienced US adolescents. *Journal of Adolescent Health, 53*(2), 235-240.

Durowade, K. A., Babatunde, O. A., Omokanye, L. O., Elegbede, O. E., Ayodele, L. M., Adewoye, K. R., Adetokunbo, S., Olomofe, C. O., Fawole, A. A., Adebola, O. E. & Olaniyan, T. O. (2017). Early sexual debut: prevalence and risk factors among secondary school students in Ido-ekiti, Ekiti state, South-West Nigeria. *African health sciences, 17*(3), 614-622.

Eaton, D. K., Kann, L., Kinchen, S., Shanklin, S., Ross, J., Hawkins, J., Harris, W. A., Lowry, R., McManus, T., Chyen, D. & Lim, C. (2008). Youth risk behavior surveillance - United States, 2007. Morbidity and mortality weekly report. *Surveillance summaries, 57*(4), 1-131.

Economic Policy Research Centre. (2020). *The national strategy to end child marriage and teenage pregnancy 2014/2015 and 2019/2020*. Kampala: EPRCUG. https://www.eprcug.org

Fisher, J. D. & Fisher, W. A. (1992). Changing AIDS-risk behavior, *Psychological Bulletin, 111*(3):455–474. http://dx.doi.org/10.1037/0033-2909.111.3.455

Hindine, M. J. & Fatusi, A. O. (2009). Adolescent sexual and reproductive health in developing countries: An overview of trends and interventions. *International perspectives on sexual and reproductive health, 35*(2),58-62.

Hoffman, S. D. (2006). *By the numbers: The public costs of teen childbearing*. Washinton, DC: National Campaign to Prevent Teen Pregnancy. http:www.thenationalcampaign.org/costs

Honig, A. S. (2012). Teen pregnancy. *International Journal of Adolescence and Youth, 17*(1), 1-10. http://dx.doi:10.1080/02673843.2012.655912

Johnson-Motoyama, M., Moses, M., Kann, T. K., Mariscal, E. S., Levy, M., Navarro, C. & Fite, P. J. (2016). Parent, teacher, and school stakeholder perspectives on adolescent pregnancy prevention programming for Latino youth. *The Journal of Primary Prevention, 37*(6), 513-525.

Kassahun, E. A., Gelagy, A. A., Muche, A. A., Dessie, A. A. & Kassie, B. A. (2019). Factors associated with early sexual initiation among preparatory and high school youths in Woldia town, northeast Ethiopia: A cross-sectional. *BMC Public Health, 19*, 1-8. https://doi.org/10.1186/s12889-019-6682-8

Kibombo, R., Neema, S., Moore, A. M., & Ahmed, F. H. (2008). *Adults' perceptions of adolescents' sexual and reproductive health: Qualitative evidence from Uganda*. New York: Guttmacher Institute. 1-33.

Langille, D. B. (2007). Teenage pregnancy: trends, contributing factors and the physician's role. *Canadian Medical Association Journal, 17*6(11), 1601-1602.

Li, J., Li, S., Yan, H., Xu, D., Xiao, H., Cao, Y. & Mao, Z. (2015). Early sex initiation and subsequent unsafe sexual behaviors and sex-related risks among female undergraduates in Wuhan, China. *Asia Pacific Journal of Public Health, 27*(2), 21-29.

Magowe, M. K., Seloilwe, E., Dithole, K. & St. Lawrence, J. (2017). Perceptions of key participants about Botswana adolescents' risks of unplanned pregnancy, sexually transmitted diseases, and HIV: Qualitative findings. *Japan Journal of Nursing Science, 14*(4), 257-266.

Maly, C., McClendon, K. A., Baumgartner, J. N., Nakyanjo, N., Ddaaki, W. G., Serwadda, D., Nalugoda, F. K., Wawer, M. J., Bonnevie, E. & Wagman, J. A. (2017). Perceptions of adolescent pregnancy among teenage girls in Rakai, Uganda. *Global qualitative nursing research, 4*, 1-12.

Miller, K. S., Fasula, A. M., Dittus, P., Wiegand, R. E., Wyckoff, S. C., & McNair, L. (2009). Barriers and facilitators to maternal communication with preadolescents about age-relevant sexual topics. *AIDS and Behavior, 13*(2), 365-374.

Mohajan, H. K. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People, 7*(1), 23-48. https://mpra.ub.uni-muenchen.de/85654/ MPRA Paper No. 85654, posted 4 April 2018 12:47 UTC

Muhwezi, W. W., Katahoire, A. R., Banura, C., Mugooda, H., Kwesiga, D., Bastien, S., & Klepp, K.I. (2015). Perceptions and experiences of adolescents, parents and school administrators regarding adolescent-parent communication on sexual and reproductive health issues in urban and rural Uganda. *Reproductive Health, 12*(1), 1-16.

Namisi, F. S., Flisher, A. J., Overland, S., Bastien, S., Onya, H., Kaaya, S. & Aarø, L. E. (2009). Sociodemographic variations in communication on sexuality and HIV/AIDS with parents, family members and teachers among in-school adolescents: a multi-site study in Tanzania and South Africa. *Scandinavian Journal of Public Health, 37*(2), 65-74.

National Academy of Science, Engineering and Medicine. (2016). *Parenting Matters; Supporting Parents of children Ages 0-8*. Washington (DC): The National Academies Press. https:doi.org/10.17226/21868.pdf

Neal, E. S., Chandra-Mouli, V, & Chou, D. (2015). Adolescent first births in East Africa: Disaggregating characteristics, trends and determinants. *Reproductive health journal, 12*(1), 1-13. http//www.reproductive-health-journal.com/content/12/1/13

Neal, S., Ruktanonchai, C, Chandra-Mouli, V, Mathews, Z & Tatem, J. A. (2016). Mapping the first adolescent births within thre east African countries using data from Demographic and Health surveys: Exploring geospatial methods to inform policy. *Reproductive health, 13,* 1-29. DOI 10.1186/s12978-016-0205-1

Nield, J., Magnusson, B. M., Chapman, D. A., & Lapane, K. L. (2014). Age at sexual debut and subsequent sexual partnering in adulthood among American men. *American*

journal of men's health, 8(4), 327-334.

Mugumya, I. & Omona, K. (2020). Involvement of Parents in Sexuality and Reproductive Health Education of Adolescents and Associated Factors in Hoima Municipality, Uganda. *Texila International Journal of Public Health, 8*(1), 1-18. DOI: 10.21522/TIJPH.2013.08.01.Art036

Planned Parenthood Federation of America. (2014). *Parents are talking to their kids about sex but often not tackling harder issues*. https://www.plannedparenthood.org/about-us/newsroom/press-releases/new-poll-parents-talking-their-kids-about-sex-often-not-tackling-harder-issues

Renzaho, A. M. N., Kamara, J. K., Georgeou, N. & Kamanga, G. (2017). Sexual, reproductive health needs, and right of young people in slum areas of Kampala, Uganda: A cross sectional study. *PLoS ONE 12*(1), 1-21. doi:10.1371/journal.pone0169721.

Silk, J. & Romero, D. (2014). The role of parents and families in teen pregnancy prevention: An analysis of programs and policies. *Journal of Family Issues, 35*(10), 1339-1362.

Sunny, B. S., DeStavola, B., Dube, A., Price, A., Kaonga, A. M., Kondowe, S., Crampin, A. C. & Glynn, J. R. (2019). Lusting, learning and lasting in school: Sexual debut, school performance and dropout among adolescents in primary schools in Karonga district, northern Malawi. *Journal of Biosocial Science, 51*(5), 720-736.

Tabong, P. T. N., Maya, E. T., Adda-Balinia, T., Kusi-Appouh, D., Birungi, H., Tabsoba, P., & Adongo, P. B. (2018). Acceptability and stakeholders perspectives on feasibility of using trained psychologists and health workers to deliver school-based sexual and reproductive health services to adolescents in urban Accra, Ghana. *Reproductive health, 15*(1), 1-16.

UBOS. (2001). *Uganda demographic and health survey report*. Kampala. https://www.ubos.org

UBOS. (2006). *Uganda demographic and health survey report*. Kampala. https://www.ubos.org

UBOS. (2011). *Uganda demographic and health survey report*. Kampala. https://www.ubos.org

Uganda Bureau of Statistic (UBOS). (1995). *Uganda demographic and health survey report*. Kampala. https://www.ubos.org

Wamoy, J., Fenwick, A., Urassa, M., Zaba, B., and Stones, W. (2010). Parent-child communication about sexual and reproductive health in rural Tanzania: Implications for young people's sexual health interventions. *Reproductive Health, 7*(1), 1-18. http://www.reproductive-health-journal.com/content/7/1/6

Wanje, G., Masese, L., Avuvika, E., Baghazal, A., Omoni, G., & McClelland, R. S. (2017). Parents' and teachers' views on sexual health education and screening for sexually transmitted infections among in-school adolescent girls in Kenya: A qualitative study. *Reproductive health, 14*(1), 1-11.

World Health Organization (WHO). (2018). *Recommendations on adolescent reproductive health and Rights*. https://www.who.int/reproductivehealth/publications/adolescent-srhr-who-recommendations/en/

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Private schools for the poor as a disruptive educational innovation. An interview with Professor James Tooley.

James Tooley[A] — *A* — *Vice Chancellor, University of Buckingham; Professor*

Jürgen Rudolph[B] — *B* — *Head of Research & Senior Lecturer, Kaplan Singapore; Editor-in-chief, Journal of Applied Learning & Teaching*

Stefan Melnik[C] — *C* — *Author and adult educator*

Shannon Tan[D] — *D* — *Research Assistant, Kaplan Singapore; Journal Manager, Journal of Applied Learning & Teaching*

Keywords

COVID-19;
disruptive innovation;
Ghana;
higher education;
India;
liberalism;
libertarianism;
Nigeria;
philosophy of education;
private education'
private schools;
signalling.

DOI: https://doi.org/10.37074/jalt.2020.3.2.22

Abstract

Professor James Tooley (born in 1959 in Southampton, England) is the Vice Chancellor of the University of Buckingham since 1 October, 2020. Prior to that appointment, he was professor of educational entrepreneurship and policy at the University of Buckingham, with previous academic appointments at the Universities of Oxford, Manchester and Newcastle. His ground-breaking research on low-cost private education in developing countries has won numerous awards, including a gold prize in the first International Finance Corporation/ *Financial Times* Private Sector Development Competition, the Templeton Prize for Free Market Solutions to Poverty, and the IEA's National Free Enterprise Award. His book based on this research, *The beautiful tree* (Penguin and Cato Institute), was a best-seller in India and won the Sir Antony Fisher Memorial Prize. He has also authored many other books. Building on his research, Prof Tooley has pioneered models of innovation in low-cost private education. He has co-founded chains of low-cost schools in Ghana, India, Honduras and, most recently, in England. In this extensive interview, we focus on James Tooley's fascinating research on private education for the poor, but also, touch on a wide range of other topics, such as his unjust imprisonment in India, his own private school ventures in four continents, and the question of whether higher education is largely signaling or it truly builds human capital.

[C] We dedicate this text to our friend Dr. Stefan Melnik, a brilliant intellectual and adult educator who was closely associated with the Friedrich Naumann Foundation in Germany and worldwide. Stefan provided a first draft of guiding interview questions and we were planning to do the interview together with him. Unfortunately, he fell ill shortly before the interview and passed away on 25 September, 2020.

Figure 1: Prof James Tooley. Source: James Tooley.

Figure 2: In memoriam Dr Stefan Melnik. Source: https://www.facebook.com/St.Melnik

Jürgen Rudolph [JR]: Thank you so much, Professor Tooley for agreeing to this interview, and our heartiest congratulations on being appointed Vice-Chancellor of Buckingham University! We very much appreciate your taking the time, as this must be an incredibly busy time for you, given the new appointment and also the pandemic. You're the foremost expert on private schools for the poor, and you've been described as a 21st century Indiana Jones, travelling to, and doing research on, some of the most remote and dangerous parts of the world. And we hope that you don't mind that we start off with a bit of a biographical question. What was your experience like going to school in Kingsfield School, Kingswood (Bristol)? And what made you go to Mugabe's Zimbabwe in the early 1980s to teach mathematics?

James Tooley [JT]: I think it's quite an important point about where I went to school because a lot of people assume that someone who is talking about private education came from a privileged background and went to a private school themselves. So absolutely not. I came from a very ordinary working class family. Kingswood is in East Bristol. It's a sort of a working class suburb of Bristol. And Kingsfield was a state comprehensive school. So there was no sense of privilege there at all, so that's worth noting. A lot of people in education, their own schooling does influence what they're doing.

I suppose I was quite a bright boy in a comprehensive school, quite early on in the comprehensive sort of revolution in England. It was very much an experience that I wouldn't want other children to have to go through – where you weren't encouraged to learn. There was a sort of social conditioning aspect to what you're doing, an egalitarian philosophy that just didn't encourage people to excel in their learning. And in the end, I quite often played truant from lessons, to go to the library. That was the only place I could work, study and learn, because classrooms were often not conducive to that.

So then, after some time, I went to university and studied mathematics and philosophy. And I went to Zimbabwe as a young man straight from college. It was really just a sense of adventure and identifying with a young country. Zimbabwe had just become independent in 1980, I went in 1983. I wanted to be part of building this new country there, and contributing as a mathematics teacher seemed like a good way of doing it. I should say at that time, I would have called myself a socialist. I would absolutely not be in favour of any of the ideas that I talk about now in terms of private education. I think I joined two *Das Kapital* reading groups while I was in Zimbabwe, and would have been very supportive of this idea that, yes, we are building a socialist regime here. I worked weekends in cooperative schools and cooperative farms. So that was definitely adventure. But of course, that then gave me a taste of Africa and of travel and so on. And that helped then in my later transition to the work I was doing. But at that time, nothing to do with low-cost private schools.

Zimbabwe had just become independent in 1980, I went in 1983. I wanted to be part of building this new country there, and contributing as a mathematics teacher seemed like a good way of doing it.

JR: You've published many books and articles, amongst them *The beautiful tree* (2009), a book that celebrates private schools of the poor in emerging economies such as India, Nigeria, Ghana, and Kenya. The book offers surprising insights for the vast majority of experts and readers that expect education to be organised and run by the state and regard alternative models of education to be unsustainable. What were the things that surprised you the most as a result of the field research you and your colleagues were engaged in? And more recently, you co-authored another fascinating book, *Education, war and peace. The surprising success of private schools in war-torn countries* (2017), which reinforces your argument that you can rely on the private sector to supply education services that the state does not, and that at a very low cost. What is it that drives entrepreneurs to provide services in the most desolate of conditions, and drives parents to pay and send their children to school even when war is raging?

JR: The first question was about *The beautiful tree* and then the second was about *Education, war and peace*. Everything was surprising about the research that led up to *The beautiful tree*. So we left my biography where I was a socialist and whatever. And I then did a PhD at what's now UCL Institute of Education, in Political Philosophy of Education, prompted by the question – I don't know why it was bothering me: Why is government involved in education? That was really the philosophical question that bothered me. And during the course of the PhD, I read amongst others Professor E.G. West who changed my life. And I read his book *Education and the state* (West, 1965).

To my surprise, the thesis then came round to actually saying, 'I don't believe there is a philosophical justification for the state to be involved in education'. So I was then, as it were, in favour of private education by default and, because of my background, I managed to secure quite a large grant in those days from International Finance Corporation, the private arm of the World Bank that wanted to look at private education in developing countries. And that led to my publication *The global education industry* (1999), but private education as understood by everyone then was for the elite, for the upper middle classes, at least no one thought about the poor.

And I then did a PhD at what's now UCL Institute of Education, in Political Philosophy of Education, prompted by the question: Why is government involved in education? To my surprise, the thesis then came round to actually saying, 'I don't believe there is a philosophical justification for the state to be involved in education'.

JT: It was when in 2000, by this time I was a professor at Newcastle University, I was in India doing some consultancy work for the IFC (the International Finance Corporation), all elite private colleges doing some educational due diligence. And it was then that I took a day off, on Republic Day, January 26. I went into the slums of the Old City, and I found my first low-cost private school down in one alleyway. I found another one and another, and soon realised that something extraordinary was going on. And for me, it was a personal epiphany. Because for whatever reason, I felt my life should be about serving the poor or dedicated to the poor – the 'less blessed' people as they were then called in India. And I was an expert on private education which is about the rich or the elite. And suddenly, I found these low-cost private schools for the poor, in the slums of the Old City of Hyderabad. And my life felt complete: I could be an expert in private education and be concerned with serving the poor at the same time. It was, as I said, a genuine epiphany. It was one of those moments when sitting in my hotel room I felt: I understand how the bits of my life can fit together.

Figure 3: James Tooley in a Tuk Tuk taxi in India. Source: James Tooley.

So what I'm saying is: *Everything* was surprising. It surprised me to find low-cost private schools in the year 2000. It surprised me to find so many of them. The research found the majority of urban kids were in low-cost private schools. It surprised me to find that they were better than the alternative because when people started hearing about this phenomenon, they said: 'Oh, it's just a few business people ripping off the poor and the parents are being hoodwinked'. The parents are being 'stupid' sending their children there because they're wanting a fake status symbol.

One government person told me that 'our research, and all the research since, show the schools were better than the government alternative'. It surprised me to find that they weren't all charities. Because initially, when you find a low-cost school you assume, it must be a charity. Then to realise that actually they were not charities, but typically (not always) small businesses that were making a modest income for their owners. But nonetheless, run in that sort of businesslike way rather than a charity dependent on outside funding. They were businesses dependent only on school fees and so on

and so forth. So many surprises and obviously, I catalogue those in *The beautiful tree*, but it was almost: Nothing was expected! Now once you start finding these schools in India, in different parts of India, rural and urban India, and then you find them in urban and rural Nigeria, Lagos State, and then you start assuming, okay, I will find them wherever I go.

In a sense, what was not surprising then, I described in the book [*The beautiful tree*]. I arrived in Kenya, met with someone in Nairobi, who should know about this sort of thing. But he said 'no, private schools are for the elite in our country, you may have found this phenomenon in Nigeria, it won't be true here'. And every single time, it was the same story: That private schools were very much in the slums, in the poor areas. They were there, the same in every country. And that's quite a nice segue into the second part of your question then, *Education, war and peace*. Because when I published *The beautiful tree* and when I was doing talks, one of the criticisms was: 'Okay, private schools are good for the poor, the most deprived, but you've looked at India, Ghana, Nigeria, Kenya, China, these are not the poorest of countries. You're over-egging the pudding. What you're saying is 'private schools are for the most underprivileged' but you're only looking at these countries. What does happen for the most underprivileged has clearly nothing to do with private education'.

Figure 4: A girl named Victoria in a village called Bortianor, Ghana, whose father is a fisherman and who goes to a private school. Source: James Tooley.

So I did take that seriously and it's part of my mission. I would like to go to more and more difficult places – I don't know why. So then I did the same studies we did for *The beautiful tree*, I did them in Sierra Leone, Liberia and South Sudan. And I had some other forays into Somaliland as well. And the extraordinary thing was: The slums of Monrovia in Liberia were identical to the slums of Lagos in Nigeria, in terms of the private schools we found. The poor parts of Juba in South Sudan were incredibly similar to the poor suburbs of Accra in Ghana. The same principles apply. So far from being a phenomenon that didn't serve the poorest of the poor, it actually was there. And just some figures from Monrovia: 61% of the schools we found in certain slums were proprietor schools, these were the sort of ownership schools rather than mission schools or church schools or whatever. And 71% of the kids in the slums went to these private schools, it was more or less the same figure as we found in Lagos, Nigeria, and Accra.

Figure 5: Ken Ade Primary School, Makoko shantytown, Nigeria. Source: James Tooley (2015).

Figure 6: Prof Tooley in Christian Hill, Ghana. Source: James Tooley.

So what was interesting and what the *Education, war and peace* tries to do is say: One of the reasons why parents are sending their children to these private schools has to do with the indifference of those in the government schools – they don't teach very much, they abuse the kids and the rest of it. So that's one of the reasons, but another reason is this mistrust of the State and this recognition that when the State gets hold of education – it's not my comment, but other people have pointed it out – it can actually start causing the wars and the civil unrest in these countries!

Actually, having a private alternative is seen as desirable by many people, many communities, because it separates the State from education, which is seen as harmful and not seen as the major reason. But nonetheless, that is certainly a reason it was given to me. That's why people are in low-cost

private schools. So *The beautiful tree* was just a huge surprise journey. *Education, war and peace* is actually saying, finding the same phenomenon exists even in the most difficult countries and I've been to northern Nigeria since then. I was hoping to do a study on northern Nigeria one day, the same phenomena exist there. I've got people looking for me in Burma (or Myanmar), the same phenomena exist in the world's most difficult places. In India, we've done some preliminary visits to Kashmir – obviously troubled Kashmir – the same phenomenon exists. Low-cost private schools are well-nigh universal in poor countries. That's my experience.

Low-cost private schools are well-nigh universal in poor countries.

JR: That's really an amazing finding. I heard about your research many years ago. But when I recently read your book, *The beautiful tree*, and also some of your other work, it hit me how sensational and how important these findings are. So, following up on the summary that you just gave of those two books: This low-cost education is obviously *extremely* low cost. When I was reading about this, it also struck me: Would you describe this as 'disruptive innovation'? I mean, Clayton Christensen has come up with this term some time ago, but I think it has been much abused. But when I was reading your work I thought that this is actually *real* disruptive innovation. Because these are the kind of *bricoleurs*, people who make do with whatever they have, and it has to be ultra-low cost in order to be ultra-low price. And it's an innovation that obviously suits the bottom of the economic pyramid.

JT: Yes. In fact, I met Clayton Christensen; he sadly passed away. But I met him a couple of times. And he actually wrote a blurb on the cover of *The beautiful tree*.

JR: [citing Clayton Christensen's quote on the cover of *The beautiful tree*]: "This is an insightful, empathetic testament to the motivation and the ability of the most underprivileged people on Earth to lift each other and a condemning chronicle of the wrong-headed, wasteful ways that many governments and aid agencies have used to 'help' them".

JT: Yes, so he doesn't mention the term 'disruptive innovation', but I think he would have seen it as such. I think you want to talk about the work we're doing in the north of England as well. That's an example of me taking what I've seen elsewhere in the world, bringing it to England, where it's clearly a very disruptive innovation. It's disruptive of what we all think education should be, we think education should be provided by the state, provided free at the point of delivery. And that's the best way of serving everyone, including the poor. It completely throws that on its head, isn't it? Because it shows that actually, the majority provision in urban areas is provided by the private sector. It's not free at the point of delivery, yet it is the preferred choice of parents. And it does better than what we all think of the state's solution. So definitely, I think it's a disruptive technology, and it's very commendable for that reason.

JR: I was also really quite shocked – although it was not the first time that I read about that, too – about some of your descriptions about public schools, where the teachers are sleeping, sprawled all over the desk, even during audits. The whole incentivisation system is obviously completely wrong because it allows such incredible phenomena. There has been a backlash by some governments and, for instance in India, quite a few of the private schools have been closed. The Punjab is an example, if I remember correctly. So how do you see these developments? Do you think that a rollback is inevitable because of the threat of these low-cost private schools that they provide to the educational establishment, and how do you characterise the key differences between the private and the public schools?

JT: Yes, this issue of backlash is an important one. When I was writing *The beautiful tree* and thinking about publishing it, it was one of the things that really bothered me: Would writing about it bring to the attention of a much wider public this phenomenon, and lead to governments trying to close them down? Because I've seen that happening and it was a real dilemma in my mind. I even had to anonymise some of the people and places in *The beautiful tree* in one of the chapters just to sort of get around my fear.
I think it depends on the government. I think all governments are likely to err on the side of wanting to control this sector. This was the argument of the Lagos government at one time: If all the children in the private schools come to the state sector, we will have a bill of a billion dollars to pay for teachers and places. The figure was very high, I forget the exact figure, but nonetheless, it was a huge amount of money that was required, to pay for the children's education. And that's not taking into account the marginal costs: You fill up some of the classrooms, but then you've got the need for extra classrooms and extra schools and so on. So, once people start realising that, they might think: Maybe this private sector is not so bad after all, and we can go along with it, provided that it is delivering quality – which it clearly is – and we can go along with it for a bit.

Some governments have been quite pragmatic like that, and other governments in my experience have been pretty laissez-faire about the whole thing, as far as I can see. The Ghana government, for instance, has been always pretty relaxed about low-cost private education. You would see a range of attitudes, some completely relaxed like Ghana, some like Lagos state and other states in Nigeria who were initially antagonistic, but realised it's probably in their interest to support the sector. And then you got India, which is the most extreme example: The Right to Education Act. It sounds like a great idea, doesn't it? The Right to Education Act, who can be against the right to education? Actually, I knew some of the architects of the Act, and they told me it was specifically designed in places to get rid of low-cost private schools. That was part of this aim, and the regulatory environment was made more challenging and had to be met by all schools. There was no discretion. It did lead to thousands of schools being closed in the Punjab, in particular, but also in Andhra Pradesh, across India.

Figure 7: An event by the Punjab Private Schools Organisation with James Tooley. Photo: James Tooley.

The question I have – and I don't know the answer, so this is a genuine question; and I would like to know the answer to this, and if I had more time for research, it would be one of my research topics – is: The Punjab government closed more than 2,000 schools, what happened to those children afterwards? And is it possible that as those children were probably out of school for quite some time, they may have gone into government schools? Is it possible that they then drifted back to newly-opened private schools? And actually, the 2,000 schools that were closed, probably led to a net closing of none, or only a few? I don't know, but that's my assumption. Because those kids, they've got to go somewhere, haven't they? Their parents clearly have demonstrated that they want to pay, they're happy paying a small amount for education. That's why they're in the low-cost private schools and low-cost private school entrepreneurs have demonstrated that they want to open these schools. So the entrepreneurial spirit is still alive. As I said, I don't know. Maybe the authorities would not let this happen, in which case you have lots of kids out of school. My guess is that some of those schools reopened.

Now at the moment, the specifics of 2020 of course is: Government are closing down schools in all the countries I'm working in. And it's a terrible plight, I do get calls from people in Liberia, India, Nigeria, their livelihoods are gone. The schools have been closed by government lockdowns, and schools are not reopening very quickly. In India, they might reopen at the end of the month [September], or they might not. These schools and small businesses have all closed, like many other businesses: What will happen when lockdown is ended? Hopefully some will reemerge, but it's a really difficult time for local private school entrepreneurs the world over.

Government are closing down schools in all the countries I'm working in. And it's a terrible plight, I do get calls from people in Liberia, India, Nigeria, their livelihoods are gone. It's a really difficult time for local private school entrepreneurs the world over.

JR: Certainly. For some of the African countries, I guess it's kind of a repeat of the Ebola virus.

JT: Yes, except, it's probably worse than that. This is not a part of this discussion. But for whatever reason, governments have locked down more severely around COVID than they've ever done in any way, shape or form before, and this is an absolutely existential threat to low-cost private schools for now.

JR: Absolutely.

JT: You also asked me about the difference between public and private schools. Very briefly, if you're going to focus on one difference, it is the accountability of the proprietor to the parents. They pay fees and they *demand* better. In the parent meetings in the low-cost private school communities, the parents are very concerned about the standards and whether the teachers are actually turning up and teaching. Because in some cases, teachers may not turn up. The parents may not be able to speak English themselves, but they can tell if their kids are speaking better than the neighbours or vice versa. They can recognise the differences, and see whether the books have been marked or not. They are very demanding, the private school proprietor is accountable to them, and of course, the teachers are accountable to the proprietors. If they don't turn up and don't teach, eventually they get fired. It's very simple. Whereas in these government schools, they can *not* turn up for years and years on end.

JR: It's incredible. My next question goes further than your research. Because quite unusually, you have not been satisfied by merely writing about private schools for the poor in slums, shantytowns, peri-urban areas, rural areas and so on. You have also co-founded chains of private schools in three continents (Ghana, Sierra Leone, Nigeria, Honduras and India) that you have humbly described as a 'mixed success'. Could you please tell us more about some of these remarkable ventures?

JT: You're kind for saying I'm being humble. I think I'm being honest about these ventures, they were a mixed success. For me, I was always a reluctant businessman, a reluctant entrepreneur. In a sense, I was always wearing really that educator / researcher / philosopher's hat, and perhaps that's why they weren't as successful as they could have been. Because, for me, I was really more interested in proving or exploring the point: Private schools are better for the poor. Can we raise investment? Can we improve them further still? Can we invest in teacher training and all that sort of thing? And because I couldn't quite shake off that academic hat, I wasn't as effective as a businessman as I could have been. Now, the good news was I always partnered with a local entrepreneur in those areas, better businesspeople than myself. But I think if you're going into the business of education, I would say as a conclusion to that sort of time in my life: It's far better to be focused as a businessman, as an entrepreneur, rather than trying to wear these multiple hats and still wanting to explore the philosophical questions. There is an aspect of focus.

I co-founded chains in India, in Hyderabad, and in Gujarat, they are doing fine, they're doing well, they're successful.

In part, that's because I've got out of them [JT laughs], I've got them going. The local entrepreneurs are running them really well and they're very successful. This is of course pre-lockdown. Nothing is successful at the moment. So those are doing fine. The same with the one in Honduras and again, a brilliant entrepreneur that I partnered with, so it's doing fine. But I'm not really very involved in that. And in Ghana – forget the other ones in West Africa, but Ghana was the most significant one – Omega Schools, a brilliant local entrepreneur, I got involved with, created a fantastic chain very quickly.

For the reasons we've discussed or other reasons, I wasn't as focused on it as I should have been. And anyway, it [Omega Schools] has now been merged with another chain of schools called Rising Academies. I'm slightly involved with them, I'm definitely not being humble and being honest, a mixed bag. But nonetheless, *for me*, it was certainly incredibly important *running schools*. Because as an academic, one can write very easily about the business of education, but it is very different actually doing it. It is *much harder* than as an academic, writing that stuff you can think of. Perhaps I had the idea, the spark of creativity and got things going, and they are certainly better for the kids than the alternatives of the state schools. And I showed that you could raise investment.

Figure 8: Omega School marketing collateral. Photo: James Tooley.

Most importantly, actually, others have followed in this way now. So, they say the Rising Academies which started in Sierra Leone, they were clearly absolutely inspired by my work. And now they're partnering, they merged with Omega Schools in Ghana. And Bridge International Academies, the most famous of these chains, they were inspired by my work. The co-founder of them came to visit me in Newcastle after I published *The beautiful tree* – I won a prize, the last chapter of *The beautiful tree* is actually a prize-winning essay in 2006. The co-founder came to visit me in Newcastle and discussed the idea of creating chains of schools. So, I've certainly inspired a lot of these very successful projects around the world. And I'm happy to have done that.

Figure 9: Omega primary students doing mathematics. Source: James Tooley

Figure 10: Association for Formidable Educational Development with James Tooley. Source: James Tooley.

JR: That's a fantastic legacy and much more than most academics ever experience. My next question relates to a bit of a dark chapter that you have nonetheless decided to write a book about. So as a result of your passionate engagement for private schools, you were unjustly detained in Hyderabad. This showed you the terrible underbelly of corruption of the judicial and prison system in India, or in Hyderabad, to be more precise. In your book *Imprisoned in India. Corruption and extortion in the world's largest democracy* (2016), you described the jailers as typically cruel and violent, but the other prisoners as extraordinarily kind. Would it be fair to say that you emerged undeterred from this horrifying ordeal?

JT: Yes, and you're right, I wrote a book about it. It was pure catharsis, it was a horrible experience. And writing the book, getting it out of my system as it were. It's a very frank book, I am rather embarrassed about the way I discussed my personal life in there, but it was, at the time, just getting stuff out of my system. It's an experience I would not have missed, because in a way, I saw the worst of humanity, and also the best of humanity. The basic story is a simple story:

A foreigner involved in education trusts in India is a low-hanging fruit because you can arrest them, you can ask them for a bribe or even threaten to throw them in jail. Because the police system is such. I described it in the book, it was inherited from the British. There was a great deal of discretion at the local police level, so they can throw you in jail for *no reason*, just under some pretext, something that would have been the equivalent of a speeding fine, to do with regulations about trusts and societies. And typically, I was told, I got to know this corrupt policewoman very well, foreigners pay up because they've got to get home, they got to get to their jobs and families.

And I just didn't feel like paying up this bribe. It was a significant bribe, it started off with $5,000 or $10,000. And later it went up to about 20 to $25,000, I just refused to pay this and I didn't want to. But that experience of seeing the worst of humanity, the jailers, the prison, that police superintendent and so on. And then there was also this most beautiful thing, the Shawshank Redemption it was *not*. I mean, the prisoners looked after me beautifully. They cared for me and I for them. And I described several things in the book. I won't go into them too much now. But it was this experience that I was pleased I had, in a funny sort of way, because it did let me see the beauty of humanity. And it didn't put me off going to these countries, although perhaps it should.

JR: You are remarkably brave, much braver than I could dream of being. So then, after you were back in the UK from the unjust imprisonment, your insurance company was apparently not too thrilled with your travelling. You used some of your time to start a private school in Durham (after it took 485 days for it to be registered). How is this experiment that you started 'for philosophical reasons' (as a free-marketeer and libertarian) coming along?

JT: It is very interesting, actually. You are right, there's the university insurers, because finally when I got back from this prison experience, the University insurers said 'Tooley is not travelling' [both laugh]. And, to be honest, for about a year, I was pretty shaken up. I didn't particularly want to travel. But I'm a one trick pony, I couldn't lose my interest in low-cost private schools. So I did go out and got one of my students to come and go up on the streets of Newcastle in the northeast of England, just getting a sense: Was there a demand for low-cost education? And I followed up when I was giving talks in England and America, Germany, wherever. A common question for people is: 'You've seen it in Nigeria, Liberia, India, blah blah blah, but why is it not here in England or America or Germany? Why isn't it here? And I tend to think there were good reasons why it's not there. Probably because the state system is not so bad. You can at least do something like free schools or charter schools or academies. Charter schools, they let off steam by doing something. It's still within the state sector.

But then it occurred to me that after talking to parents, maybe one of the reasons why it's not here in England, it's because there's a lack of entrepreneurs who've had the idea. It sort of made me think. In Nigeria, in India, there must have been one first entrepreneur, or maybe simultaneously invented in several cities, but nonetheless, there must have been an entrepreneur who started the first low-cost private school and found that it worked and others came in and did the same. And it must have been that, so I thought, why don't we do it in England and just try it?

So I got together with two other colleagues. We put in our own money, as indeed with all the projects I worked on and that I've described. I put in my own money just to get started,. And it's going to be a really low-cost model. Now, obviously, not low-cost like the schools I've described, but low-cost enough so that people on the second lowest quintile could afford the schools. Private schools at the moment in England are only affordable by the top quintile, probably by the top decile. But this was actually coming down to the middle and the second lowest quintile. We have got a model together, we were charging £2,700 initially, now £3,000 a year, that's *a year*. But when I say that figure, people assume I meant a term, no, that was *per year*, £3,000 per year. It took 485 days to get registered, it really was a difficult task.

We opened and the teacher unions were all protesting about us, they would picket all our parent evenings, they picketed our first couple of days of school, putting parents off. The first day, I think, we had two paying parents. I thought this is impossible. Anyway, it's a very small school. It's been running two years now. The government has to send inspectors even to private schools. We got a "good" which is as high as you can get for a new school. We have now got 40 kids after two years, and breakeven is only 44 kids roughly.

So in other words, we've proven the model. We have proven that this sort of school, you can start off very low-cost. I mean, many people think that when starting a school, you probably need £5-10 million. Actually, to start a school, you need £100,000.

JR: Wow!

JT: That's to cover most of your working capital costs, a few improvements to a building, rent the building. And, you know, you can create a school that will eventually give a small return. But it's providing something that parents want. How do I know parents want it? Because 40 parents have paid for it, and it's only a very small school. But again, I would like to see more of these opening. Because I've taken on this role as Vice Chancellor here, I can't be involved in it very much, at least for a year or two, but my business partners up there are doing well. And I think we will see perhaps three or four of those schools emerging. Interestingly enough, again, lots of people contacted me when I got quite a lot of publicity about that and said: 'This is brilliant. We want to do the same thing in another town, in another country'. And I haven't followed up lately, but my guess is a few more of these things will emerge in due course.

JR: That's really a fascinating experiment, and thanks also for sharing the numbers! £100,000 doesn't seem like a huge investment for this kind of experiment. I also find it amazing how difficult it is to even start it, it is also very counter-intuitive, with all the red tape that you have encountered.

JT: Exactly. I thought that it would be so much easier in Britain than in India or Nigeria. And it was partly our naivety.

So we were naive about opening schools but not stupid, as a professor of education and the people that I was working with in private education. As we were normal people coming into this area, we weren't specialists and we weren't stupid – it was much more difficult to jump through the bureaucratic hoops than we realised. Now we know that and it will never take that long again to do it. So it'll be easier in the future. But of course, that led to problems. I think when we first announced it, we had 100 parents expressing an interest, but then we had to postpone twice our opening. And most parents, sensitively enough, were saying: 'These guys keep postponing, they're clearly not serious. How can we trust them?' And so that was probably why we started off so small with only two willing paying customers, two paying students, as well as taking the time to build up.

JR: But you persevered and now you're already very close to breakeven. Most of your work, to the best of our knowledge, deals with school education, especially of course with private schools, as you explained, this is your life's work. And after a long career as a Professor of Education at Newcastle University, you were recently appointed as Professor of Educational Entrepreneurship and Policy at Buckingham University, which we believe is the first Chair of its kind in the UK. And then you were appointed as PVC. And now as Vice Chancellor. Again, congratulations! And I think, the University of Buckingham is very interesting and very unique in the sense that it does not accept government subsidies, if I understand that correctly. And as a result, you're so much more independent than all the other British universities. So, could you share your experience at Buckingham University a little and what's your vision for Buckingham University?

JT: The move here was deliberate. I've written a bit about higher education, and it's always again the same question – why is the state involved in higher education? – that has bothered me. The University of Buckingham was set up as this independent University nearly 50 years. And it is a sort of unique example of independence. Now, governments regulate the universities to a very large extent in Britain, and what you normally call a state university or public university, they have to satisfy 24 regulations. We have to satisfy 21 of those regulations even as a private, independent University. So we have to satisfy 21 of those regulations that are significant enough to satisfy. But part of my interest in taking on this role was to see eventually how we can start rolling back the state in higher education. But your question sort of said: 'There seems to be discontinuity in your life here'. I suppose for me, it's still all about private independent education. I told you about the epiphany I had when I discovered that private education and the poor fit together. I'm hoping in some way I can fit together those parts of my life here. I'm not absolutely sure how.

The University of Buckingham was set up as this independent University nearly 50 years... I told you about the epiphany I had when I discovered that private education and the poor fit together. I'm hoping in some way I can fit together those parts of my life here.

Figure 10: Nobel Peace Prize laureate Dr Muhammed Yunus and James Tooley. Source: James Tooley

The original intention was to set up the Centre for Educational Entrepreneurship, that's what my original intention was. And actually, I've got a couple of PhD students and one or two grants for that. So that's sort of going on. And maybe, once I've got over this sort of working in the role I'm working now – the stresses and strains because of the lockdown, all universities are in a very difficult position, and I'm having to focus on stuff that I didn't want to be focusing on at all at this time – the Centre for Educational Entrepreneurship can grow. Maybe I can pursue my interest in difficult parts of the world, maybe we can do Buckingham-validated degrees in South Sudan and Somalia and northern Nigeria.

JR: Wow!

JT: Maybe I can, either with this university or by creating a new sort of low-cost brand, I can have a low-cost higher education University brand. There's lots of possibilities. I'm not quite sure at the moment, but all I can tell you is that Buckingham is staunchly and proudly independent. It is sort of quite a unique model in England. And I want to really be shouting from the rooftops: 'We're here. We're going to do great things and sort of watch this space really'.

JR: Around 20 years ago, you published an article, radically arguing that the private sector should be allowed and encouraged to provide education for profits. Your arguments here, incidentally, did not make a distinction between basic and tertiary education. Earlier, you have already clarified that you don't see the need for any differentiation, and we were

also looking at the example of the University of Buckingham, which is very special.

You also indicated that you would actually be quite keen to use your new position to consider some very low-cost education at the tertiary level. This is still a hotly debated issue. Even though you frequently pointed out during your career and in publications on the subject that there are many such institutions throughout the world, and they're successful, amongst the reasons for subjecting education to market forces, you emphasise the innate entrepreneurial desire to expand and the necessity of quality control. If a company is to be successful in obtaining customers. What is your view on the subject today? Has it changed? Are the arguments in favour of the current dominant model – state-organised and provided education – that you find compelling? What other models would you favour, if any? Is it realistic to expect that all education can be successfully privatised? Sorry about the barrage of questions!

JT: We're talking about any level of education here, aren't we? Or are we primarily focusing on non-tertiary education?

JR: Including tertiary education.

JT: First of all, the last point you made was about privatisation, and do we want privatisation of education? In my later work, I tended to draw a distinction between what I called *grassroots privatisation* and sort of *top-down privatisation*, government-motivated privatisation. I want to just come to that distinction in a second. The second point I want to mention is that when we are talking about privatisation of either of these sorts, the private sector can be non-profit and for-profit. And I favour both being involved. It's not like I'm saying that we can only have for-profit at the expense of non-profit, or vice versa, I think both can have a very good role, and contribute to that non-state provision, as it were, of education.

So there are two points I want to cover in my answer. On the first point, maybe when I was writing 20 years ago, I wasn't really thinking of that distinction, and I thought governments will have to privatise. And now I'm of the opinion – having seen what's going on around the world – that we don't have to go down that route of saying 'governments need to privatise education'. What we've seen around the world is *grassroots* – you could call it privatisation, or you can call it whatever you like – *rejection* of government education, state education and acceptance and creation of a private sector alternative.

What we've seen around the world is grassroots rejection of government education, state education and acceptance and creation of a private sector alternative.

This has happened in developing countries. I particularly focused on Sub-Saharan Africa and South Asia, and certainly within those places, it's pretty uniform what's going on. You maybe can exclude South Africa from this discussion because South Africa is slightly different. But basically Sub-Saharan Africa – North of South Africa – and South Asia – including India, Bangladesh, Pakistan, probably Nepal as well. These are the countries that I know best. I'm not saying this is not true in other countries, these are the countries that I know best.

It's always worth remembering that in urban areas, the figure is: 70 - 80% of children are in private schools, including the figures from Kampala [Uganda's capital], 80% of *poor* children are in private schools. The figures I've come up with similarly show that 70% of *poor* children are in private schools in other countries, in Nigeria, in Liberia, and so on. So that is privatisation, isn't it? I mean, if a government was trying to privatise something and removed 70% of provision from state provision, you say, 'well, it's pretty successfully privatised'. That's what happened. But governments never decided they wanted to privatise, grassroots people did privatise.

I've seen that in those countries and continents I've studied best. I sincerely believe that this will happen in countries such as our own, such as my own at least. But it will take a long time. And I've written about that in my latest book – the publication date has just been pushed back from November [2020] to February [2021] because of the American elections, it's been published in America. I argue that there. Now that's a prediction, but who cares about my predictions? Fine. So that's my prediction. But the reality is privatisation around the world has happened on the grassroots level. And notice one advantage of this is that, if you're going to get privatisation from the top down, then first of all, you've got to get this past the vested interests – in particular, teacher unions – and governments will find that very difficult to do, and it's unlikely to happen.

Secondly, because of all the vested interests impinging, you're likely to get a heavily regulated, constrained privatisation, if it comes from the top down. And third, in many of the countries I worked, you're likely to get corruption emerging. When Russia privatised its various industries and so on, there was crony capitalism emerging, and I fear the same sort of thing happening when you privatise education from the top down – you get a whole lot of negative things happening, which is why I suggest privatisation from the grassroots up. And then in terms of the question non-profit and for-profit, as I say, I'm involved in both around the world, I see the virtues of both. And I see, where one is better than another. I have done a lot of work on this, and comparing, and one thing that's quite surprising to many people is the simple fact that in our research in Liberia, Sierra Leone, and Nigeria, and so on, we found that typically, on average, for-profit schools, the proprietor-owned schools, on average, tend to be lower-fee than the non-profit schools.

JR: That's very surprising.

JT: Yeah, it's really surprising, but this is not an unusual finding. And why it is, there can be many reasons. Anyway, that's a long answer to your question. Another finding that we had from our research is that the for-profit schools (which are proprietor-owned) would also tend to have higher teacher salaries than the non-profits. Not always, but that's quite a robust finding as well. So, they're not exploiting the teachers more, they have a very lean margin. But it must be

that the non-profits, which have their place, of course, in their important role, must have a much bigger margin or they must be less efficient with their use of resources.

One thing that's quite surprising to many people is the simple fact that in our research in Liberia, Sierra Leone, and Nigeria, we found that typically, for-profit schools tend to be lower-fee than the non-profit schools... Another finding that we had from our research is that the for-profit schools (which are proprietor-owned) would also tend to have higher teacher salaries than the non-profits.

JR: I remember reading about this in the two books that we discussed, in *Education, War & Peace* and *The beautiful tree*. Now for another interesting topic, and I think this is also something where Britain has actually dabbled in quite a bit: the voucher system. So, are you in favour of a voucher system in education that would transfer influence and power from educational bureaucracies to pupils and their parents? Namely, the consumers of education. Do you favour voucher systems for universities? Or how would you want to assist students in paying for university-level education? Or do you favour loans to students, given the fact that higher education is usually rewarded by higher income later on in life?

JT: So the voucher system and then loans for higher education. I mean again, 20 years ago, I probably was speaking and writing in favour of a voucher system. I changed my mind. And I've written about this in my book *E.G. West*, and I've written about it again in the book that will come out in February next year. So Milton Friedman changed his mind, as the key proponent, in modern days at least, of vouchers. He wrote his 1955 paper, *The role of government in education*, which was then part of his book, *Capitalism and freedom* (1962). And then in the 1955 paper, he made out the case for vouchers. And then he read the work of E.G. West. And he and his wife then said that they changed their mind in a later book, *Free to choose* [first published in 1980], as a footnote, if I recall correctly. And he wrote in a couple of papers that the argument for the voucher is based on the fact that without the State, you won't get the schooling, so therefore, you need it. There's just a basic issue we obviously need the State to do.

How do you provide state education better? Well, it's obviously through a voucher system. And I would agree that, if you have to have state education, then a voucher system is the best way to do it. But what he [Friedman] realised was that the work of E.G. West suggests that schooling will emerge as a spontaneous order. And therefore, the basic underlying premise of his argument for vouchers just didn't hold really. Because actually, the private sector can provide and parents are willing to pay and so on. And had Milton Friedman heard about my work and my team's work in developing countries about low-cost private schools, it would have been, again, real extra ammunition to his argument. Because he was just talking about the historical evidence. Now we've got contemporary evidence which shows that the poor will do exactly what they did in Victorian England, and the United States of America in the 19th century.

I'm a purist, I believe in a market for education and therefore, I believe that you don't need the state and vouchers. The argument then would be: 'Are vouchers a means to move towards this position that I would like?' And I think they're probably not. It goes back to the same thing about privatisation versus grassroots privatisation. And I use School Choice with capital 'S' and capital 'C', which government imposes, compared with school choice with lowercase 's' and 'c' to be that which spontaneously arises. If you start to introduce a voucher system, you're not going to get them through, there is no universal voucher system in America even after all that great work of Milton Friedman and his Foundation and all the rest that have been promoting it, they're all very minor. Less than one percent of kids use vouchers in America, a lot less. After all these years, 70 years of high-level advocacy of them, and you've just got less than one percent of kids in voucher schools. The teacher unions block them every time.

And the voucher systems have been brought in in Sweden and Chile. Chile was quite particular, under General Pinochet. He had his own ways of persuading the unions, shall we say [JR laughs]. And in Sweden, probably just a strange sort of configuration of political forces allowed it to come through, unlikely to happen ever again. And probably, my Swedish people tell me, unlikely to have ever happened in Sweden again, apart from that one moment.

Again, in England, in the United Kingdom, we tried to push it forward under Margaret Thatcher in the 1980s. And again, all the vested interests came in and killed it. So, I don't believe they will ever happen. So, what's the use of campaigning strongly because I don't believe it will happen? Secondly, the greatest proponent Milton Friedman changed his mind because he saw the private sector can come without it. I think those are the two reasons.

So then on higher education: loans and so on: One of the problems is when the government comes in and brings a voucher or a loan or whatever, then the price is fixed, isn't it? And typically, therefore, providers make sure the costs are up to that level of price fixing. So, in England, they fixed the maximum fee at £9,000. And guess what? All but actually one university put its fees at £9,000, there was no innovation, there was no competition over price, because the government set the fee at £9,000, and that was it. And that's always the problem with these student loans. But I'm very much in favour of student loans for precisely the reason you suggested: that you borrow now in the expectation that your income will be higher.

And there's one sort of loan, is it a loan or is a contract? I like the idea of this, where you contract with a private finance company to pay for your university education. And then you give a proportion of your income after five years or ten years or whatever, which will then add up to a maximum ceiling probably. But then there's a great incentive then for the company that's financing you to make sure you maximise your income. And therefore, it will work with the university

to ensure you're employable and so on. So, I'm certainly in favour of loans for higher education, you probably could have the same principle for lower education. But I like these, whatever they're called, proportion-of-income-maximising-loans that I think they are, very good.

JR: Thank you so much for this really enlightening answer, and bringing us back to E.G. West and Milton Friedman. Moving on to a more contemporary book, I'm not sure whether you've come across it. It has a very intriguing title. That's why I bought it. It's written by Bryan Caplan in 2018, under the title, *The case against education: Why the education system is a waste of time and money*. And the title is programmatic and encapsulates the content of the book. Caplan claims that most if not everything a university course will teach its students very little, that are to do with the needs of university graduates and employers. And the major function of successful completion of a course is not building human capital, it's signalling. So basically, it signals that you have attended, this beautiful University for four years, and that is the main function. Do you agree? What is the function of a university education in your personal opinion, and what should it be?

JT: That Bryan Caplan book is a really interesting one. And the outcome is complex. I certainly think this idea of signalling is a plausible interpretation of what particularly higher education is for – rather than the building of human capital. It's just become that way. Now, this is important. And again, this is a complicated argument, and I just sort of give the bare bones now, but can probably elaborate it. His argument, I think, is about state public funding of education. It's clear to me, it is the case against publicly funded education.

He [Caplan] gives a good analogy of the engagement ring. Do you remember that analogy? The engagement ring signifies that the man giving it to a woman has wealth and is willing to give up, what is it, two monthly salary checks, or whatever it is, that was given to the woman. Now, of course, it's very unfair, not all men can afford to do that. And some men can afford a much bigger ring than another, very unfair. So supposing the government came in and equalised that, and made sure every man could give – or every person could give their partners, to use inclusive language – an engagement ring that they want to. So the government intervenes, and everyone can give – it won't be a two-carat or three-carat – it would be half a carat or one third of a carat diamond ring, everyone can do that. And no one's allowed to give more than that [JR laughs]. But that defeats the whole object of that. And therefore, the person who previously needed to demonstrate with a two- or three-carat or five-carat, whatever you can get, ring, he or she will have to now look to something else in order to demonstrate his or her commitment. So that's the metaphor. And what he's saying is in terms of government involvement in education, there has been this *qualification inflation*, this is a very important point.

Let's just take one example. It's an example that Ronald Dore used in his book, which was a precursor of *The case against education* really. It was called *The diploma disease* [1976]. It's about qualification inflation. In his book – many years ago, in the '70s – he used the example of a librarian. When he was growing up, a librarian only had to demonstrate love of books to become a librarian. And then once the School Certificate came in, which everyone had to do in England, then to be a librarian required you to have the School Certificate. And then as more and more people got the School Certificate, the actual quality of a person you wanted wasn't then distinguished by the School Certificate. So, they needed then to demonstrate their willingness, their ability to be a librarian, by now getting A levels, then a degree. And he was writing, 'I predict, soon you will probably need a Master's in Information Science', which probably is true now. And so that's all because government is funding everyone up to a higher and a higher level. And so, in order to distinguish yourself at a level where you previously didn't need any qualification, or a very minor one, you need to get an extra. That's his argument. I think it's very plausible. I think it's a critique of government-funded education, not the private sector involvement. That's a long answer. But I think it's a very plausible argument. And it's not a desirable state of affairs.

Now, look at some other areas where you don't have the state, the government, interfering. I use one example, music exams. The government doesn't interfere, you've got a purely private sector examination system that has emerged there to test your ability to play the piano or singing or whatever. And they typically give a series of eight grades in music. And very interesting, you can take the grades, whenever you're ready, you don't have to go through them sequentially, you can jump into grade five, if you're ready for it, you don't have to do it at age 5, you can do it at age 5, 55, 75, whenever you're ready, but also they do demonstrate actual human capital. That is not about signalling. It's about demonstrating human capital. So this argument needs to be fleshed out. And that's my view on Caplan, it's very plausible. And it applies to public education, but you wouldn't use the same argument against a purely private system, you would only go to the private system to get human capital, in my view.

JR: In Western countries, in particular, we often face criticism of funding by private companies, funding of facilities, funding of research, the criticism is often levelled that such funding leads to bias, whereas the university must be 'truly independent'. What are your thoughts on the subject? Is it really the case that private funding devalues the quality of what the university has to offer?

JT: To me, there's a perfect symmetry with my response earlier between private funding and government funding. He who pays the piper calls the tune or can call the tune. And you can't exclude government funding from that, government-funded universities are not independent, they're dependent on the State and the State can push them in certain ways if the State wants to. The same is true of private provision. I am now the Vice-Chancellor of a university and I'm keen on raising money, and I can accept money from private providers who say 'this money is for a particular purpose'. For example, there was one recent case, I had to build an AI lab on that spare piece of land. And so therefore, we were being pushed in a certain direction by private funding. I don't have to accept, I can say 'no'. But equally, some donors

say, 'Here's the money, do what you wish, I believe in your university. I believe in your leadership. I know you will invest this money wisely. Do as you wish'.

The same can be true of state funding, incidentally. It's quite plausible. The state could also do the same. And it probably did in higher education, up until the 1960s or so in this country. Here's your block grant, do what you want with it. And it's equally true now that research funding, for example, is very much tied to in Britain to following the government regulations about what research should and shouldn't be, what areas are important, what impact you need to measure, what diversity indicators you need to have in research. Is this too glib an answer? I think both can be pushed in certain directions, both needn't. I don't see any asymmetry here between public or private funding.

JR: The COVID pandemic has forced many educational institutions, schools and universities to go online, especially during lockdown. Have you observed differences between educational institutions that rely on public funding and those that rely on the income they as edupreneurs generate themselves? Do you think that any of the innovations we have sometimes observed have come to stay?

JT: Very interesting questions. And I would just quibble with your language, but you probably see where I'm coming from. I don't think the COVID pandemic has led to this. I think it's the lockdowns. I think there's been severe overreactions to the so-called pandemic. Lockdowns are the problems. I am not sure whether there is very good research, but I certainly haven't come across it, I've just read this in passing in newspapers and whatever. So, I would have to look it up to check whether it's valid. But certainly, it seems that the private sector in school level education has responded better than the state schools and public schools. I've seen data, I haven't got the figures to hand, but a much larger proportion of private schools have opened quickly. And have responded, before they could open with online tuition, for children to a much greater extent than the state. That's the finding. I've seen it from America and Britain, that finding. And it's not surprising in a way, it's very clear that in this case, private schools are not getting any relief from anywhere, and they need their fees. And so obviously, they're going to be responding to their children better than the teachers who were completely and utterly protected here in both Britain, and I think America, teachers are totally protected, there's bound to be the case that private schools will respond. And I think the research shows that.
At the higher education level, I'm not aware of any research, people are saying my university here at Buckingham is responding much better than some of the other state-funded universities. But we're very small. So it could be. But obviously, the same incentive is there, when the lockdown happened on March, the 23rd, here, I need to get together all my team. And so, we're in an existential crisis, and we were just coming to the end of a term. If students don't come next term, because we're not doing anything, then we'll all lose our jobs. So, we have to do something, and everyone responded and put everything online. And there's a period about two weeks, purely online, we had two terms under lockdown, because we have a term in the summer. I know from my anecdotal experience, colleagues and universities I've been in before I came to Buckingham had no sense of urgency like that [JR laughs]. They weren't so worried. Because they, in some ways, always thought government would bail them out, which I don't think government is going to do now.

But you're asking a very interesting question: 'Will some of the innovations that were brought in, will they last?' I think this is very fascinating. And again, this is all anecdotal, but at the university level, so this is an anecdote from our law school. The law school famously used to have slots for two-hour lectures. And obviously, when you're doing online lectures, there's no way you can do two hours, let alone one hour. In fact, they realised you have to break it up into chunks, 15-minute chunks, then a quiz or something to check, who's understood and keep engagement high, and so on and so forth. And you could do the 15 minutes when you wanted to, you didn't have to do them in 1-hour chunks. The law school will never, ever do two-hour lectures, again, even if we're back in person, because they suddenly realise no one gets engaged for that long when they're online. Yes, students came into the lecture hall, but were they really engaged? Probably not. And so, teaching has changed forever because of the lockdown. And you can see, the whole idea of personalised online learning, or let's say digital learning, I'm greatly in favour of this. The learning trajectory we typically see is linear. But actually, the way you can have adaptive learning is you start learning together like this [JT gesticulates]. And then there's a quiz or a test or informal thing. And some people might need to go that route. So maybe like that route, some unit might go all the way back [JT gesticulates, drawing lines into the air that go up and down]. And eventually, to arrive at perhaps different destinations, a personalised learning experience is best done through digital means, I think.

This lockdown has provided a way of experimenting and exploring. And also we come out of it, well we're not out of it yet in this country now, yet, we've been brought back slowly. And we're likely to be, for an institution like ours, we're looking for a tech partner, actively as we speak, to see how we can improve our digital offering. Our students tolerated it, we did it very quickly. And it was better than nothing, but it's probably very low quality. And that's just production values. That's fine. But part of it has to do with, perhaps we can use technology better. So yes, this is a plus from the lockdown. I wish we didn't go through lockdown together. But nonetheless, we might not have got there without lockdown.

JR: I think when this whole lockdown around the world and social distancing and so on happened, it is of course asking too much that it's a proper online learning experience. I think the term that I quite like is 'emergency remote teaching'. Because I think that's what it was. You would probably agree there is very sound online pedagogy around since many years. But that's of course different from what was happening, when, as you were describing, universities needed to change their delivery in two weeks' time. So it's obviously not possible to do a perfect job in such a short time. But now that it is taking quite a bit longer, there's of course more time to be more systematic and strategic about it.

JT: Exactly, I agree.

JR: So I'm coming to my final question. Just now, you were saying that you're about to publish a book that was a bit delayed. So of course, I'm very interested to hear about that. And more generally, anything that we've missed out that you found important, any future projects that you would like to share?

JT: The book I've been writing for years. And in a way I keep on writing the same book. A few writers are like me that they just want to refine the argument, but it's basically the argument of all the books I've written, really. It's about moving towards a non-state, purely private system of education. But this sort of uses my later work to show: First of all, the plausibility of the non-state, the private sector in education. So part one is the work you know, *The beautiful tree*, updated, really, and then parts two and three, then move it to America, it's an American publication, this needs to be relevant to America. And I show that by extension, Britain and so on, that actually it can be completely relevant. And that you can liberate education, emancipate education in the same way that you're doing in the developing world in America, too. It's a speculative book. The publisher in their wisdom changed the title to *Really good schools*. I don't know about that title. But anyway, that's the title they've come up with.

JR: Thank you so much.

References

Caplan, B. (2018). *The case against education: Why the education system is a waste of time and money.* Princeton University Press.

Dore, R. (1976). *The diploma disease. Education, qualification and development.* University of California Press.

Friedman, M. (1962). *Capitalism and freedom*. University of Chicago press.

Friedman, M., & Friedman, R. (1990). *Free to choose: A personal statement*. Houghton Mifflin Harcourt.

Tooley, J. (1999). *The global education industry. Lessons from private education in developing countries*. The Insitute of Economic Affairs. Studies in Education no. 7, second impression.

Tooley, J. (2008). *E.G. West*. Bloomsbury Library of Educational Thought.

Tooley, J. (2009). *The beautiful tree*. Cato Institute.

Tooley, J. (2015, July 22). *The extraordinary grassroots revolution of low-cost private schools*. TEDxNewcastle. https://www.youtube.com/watch?v=XuYFgkYZfvU

Tooley, J. (2016). *Imprisoned in India. Corruption and extortion in the world's largest democracy*. Biteback Publishing Ltd.

Tooley, J. & Longfield, D. (2017). *Education, war & peace. The surprising success of private schools in war-torn countries*. The Institute of Economic Affairs.

West, E.G. (1965). *Education and the state: A study in political economy.* Institute of Economic Affairs.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

EdTech review: Teaching through Zoom – what we've learned as new online educators

Vanessa Stafford[A]

[A] *Academic Learning Manager, Kaplan Business School, Australia*

DOI: https://doi.org/10.37074/jalt.2020.3.2.14

The Covid-19 mass migration to online teaching and learning has caused a seismic shift in the field of education. No longer is online learning education's useful left arm – it was promoted to its beating heart overnight. Some institutions started from scratch, whilst others expanded existing eLearning models. I work for one of the latter, which was able to roll out an existing online program to the on-campus classes. As an Academic Learning Manager of a business school with over 3000 students, I was tasked with providing Zoom training sessions for 200 lecturers, many of whom were teaching online for the first time, a week before the start of a new trimester. This EdTech review will briefly discuss Zoom as a product and its features we've learned to use but we've learned much more than which buttons to press. Through more than 200 interactions with teachers over three months of training sessions, I witnessed us learning about ourselves as educators through the new zeitgeist of online delivery. Through my observations, I believe we've learned the pitfalls of assumption, the need for adaptability, and the importance of empathy.

By the time the pandemic struck, my school had already been using Zoom for both staff meetings and our online MBA classes. So, what is Zoom? It is a video-based communications platform from Zoom Video Communications, which offers user flexibility with its choice of video, voice, webinar, and chat functionality, across desktops, mobile devices, and conference room systems (Zoom, 2020). It was founded by Eric S. Yuan, in California, in 2011 and by 2019, it was included in the 5,000 fastest growing private companies in America (Zoom, 2020). With the Covid-19 pandemic forcing the world's classrooms online, it has grown even faster. In an interview with Techwire Asia, Magnus Falk, Zoom's CIO Advisor revealed the pressure the company felt to rise to the occasion and "make this whole nightmare, for everyone, just a little bit better…to…help save businesses…[and] people's education…" (TechwireAsia, 2020). Techwire learned that Zoom's freemium tool usage (one of its four package options), grew from 10 million daily users in December 2019 to a staggering 200 million users during the peak of the pandemic (TechwireAsia, 2020).

Whilst Zoom offers businesses many product solutions, in the education world, the main tool used for online lessons is 'Meetings'. My school uses the 'business' level package, which provides teachers with a handy single-sign-on, and the ability to share lesson slides, conduct polls, use breakout rooms for group work, record lessons to the cloud, and provide a video transcript with the recording. These features were the basis of my initial training sessions with my teachers and my observation is that they were easy to use for most teachers with existing, basic computer skills. Others found them difficult to learn and needed time and practice to use them well. By the end of the trimester, these buttons had been mastered – we had learned new skills. However, we had more important skills to learn around assumption, adaptability, and empathy.

As educators, we shouldn't assume that everyone learns in the same way and will behave the same way in a learning environment. Lesson planning for individual needs is important. The Universal Design for Learning framework is grounded in the belief that all students are individuals with unique, situational learning needs, whose three basic questions of 'what am I learning?', 'why am I learning it?', and 'how am I learning it?' must be addressed within flexible curriculum design (Dean et al., 2017). 'How am I learning?' may be even more important to address during a forced migration to online learning. To assume that we know the answer to that question for every student can be problematic. At the start of the pandemic, the new online teacher understood that there would be changes, such as having to tweak lesson content and activities to suit the online classroom. However, I witnessed many teachers incorrectly assuming that the behaviour of students would remain the same, despite the situational differences. They assumed a student would stay in the virtual room for the whole lesson, making constant eye contact, or would interrupt and ask a clarifying question whenever they needed to, or would connect and communicate with a small group of peers with ease. None of these behaviours can remain the same under new and often challenging circumstances. Indeed, evidence shows that students have found it difficult to balance their studies with the pressures of home and work commitments during this time (Jankowski, 2020). Anecdotal evidence

Figure 1. Zoom's suite of features. Image courtesy of Zoom: https://zoom.us/docs/en-us/media-kit.htm

Figure 2. Zoom's 'Meeting' tool, on 'speaker view', with all participants' cameras on. Image courtesy of Zoom: https://zoom.us/docs/en-us/media-kit.htm

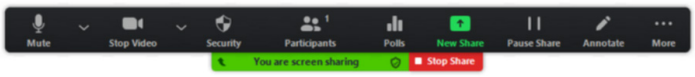


Figure 3. Zoom's 'Meeting' toolbar. Many students choose to turn their video off during the lesson. Image courtesy of Zoom: https://support.zoom.us

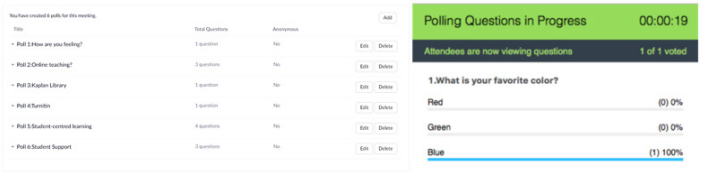
reveals that our own students represent the parent who is distracted by caring for children and is passively listening, or the worker driving home, who at the very least has managed to partly turn up to the lesson, or the focused and dedicated student who shares a bedroom with a flatmate and doesn't want to reveal such personal detail in a recorded workshop. These new student behaviours were at odds with the teachers' assumptions and, as reported during my training sessions, it led to unmet expectations and frustration for the teachers. What was needed by our teachers was an understanding of the new, unique, situational needs of the learner, whose behaviours were now unpredictable and uncontrollable, in a classroom that was no longer the teacher's domain to control but a more egalitarian, shared space. 'How' they were learning was now in students' own hands.

I deliberately use the term 'control', rather than manage, to talk about 'how' students learn because Covid-19 took away our control over many aspects of our lives and perhaps it is natural to want to regain that control again in little ways to keep afloat. One key example is when teachers assumed that all students would turn their Zoom cameras on to replicate the literal face to face classroom. Not being able to control the students' use of their own cameras was a common reported frustration. Two assumed reasons for a black screen were that the student was being disrespectful, or that they were rorting the system by attending but not participating. One teacher complaint, demonstrating the former, was that "a student wouldn't hide their face in the physical classroom so why would they do it online?". These assumptions ignore the complexities of online study in general, and specifically during this pandemic, as students' individual, situational needs expand, and they make autonomous choices to try to meet them. Perhaps using Universal Design for Learning principles could help us to shed those old assumptions on student behaviour and how we manage it. Perhaps we should relinquish some control over 'how' students learn and allow them to be more autonomous agents.

Despite the negatives of our assumptions, we did learn the positive skill of adaptability. Granziera et al. (2019) explored the need for adaptability training for trainee teachers, stressing that there are benefits to both teachers and learners when teachers possess the adaptability to effectively deal with unplanned and dynamic classroom situations – something the pandemic forced us to experience. Current UNESCO Global Education Coalition (2020) data on global education reveals that 67.6% of enrolled students (from primary to tertiary) have been forced into online study – that's over 1.1 billion learners across 143 countries. The Coalition supports countries in their response to Covid-19 by supplying information and skills on distance learning practices. This macro-level support to help countries adapt their education models complements the micro-level support of the teacher-trainer helping a teacher deliver an online class.

In the first few weeks of teacher training, I needed my teachers to adapt – quickly. I focused on achieving the most basic transition from the actions done in a face-to-face classroom to their online counterparts. We learned that a room number was now a Zoom link and walking into a classroom with purpose and personality was replaced by a click of a button (a far less satisfying experience). We adapted the process of sharing slides on the projector to sharing them through the Zoom toolbar. And we also learned that saying "shh" was ineffective and hitting 'mute all' was the new norm. As the weeks passed, we focused on adapting our familiar and easy to facilitate communicative activities into their online versions. We used polls for active learning, breakout rooms for group work, the chat function to do 'think, pair, share', and live shared docs to replace butchers' paper and pens. Adapting these ingrained teaching practices wasn't easy but we did it.

However, we didn't adapt alone. Our students were adapting, too. When re-enrolments began for the following trimester and on-campus classes were offered again, 85% of students opted to keep studying online (J. Adonopoulos, personal communication, July 8, 2020). They had adapted over the twelve-week trimester and were comfortable to continue with this new way of studying. Our student satisfaction survey results also showed that they appreciated our efforts, giving us our highest ever Net Promotor Score and equalling our teachers' highest ever satisfaction score (Adonopoulos, personal communication, June 11, 2020). One memorable student response was "my teacher is trying his best, even though he's not comfortable with technology". In my view, this showed that students were also adapting their expectations of what a teacher was able to do during those tumultuous first weeks. Perhaps we might have all fared better with adaptability training, but I witnessed us doing well, regardless.



Figures 4 and 5. Screenshots of created polls and of a live poll during a lesson.

Adaptability is important but, in my view, the greatest skill a teacher can possess is empathy for their individual learners' needs. Maslow and Rogers, leaders in the Humanistic approach for learning, believed that each learner has a need to be self-fulfilled in the learning environment in order to be motivated to learn (Duchesne & McMaugh, 2019; Churchill, 2019). I would argue that understanding what each student needs in order to find that self-fulfilment requires empathy. I believe that when you have empathy for your learner, you can place them in the centre of your lesson plan, creating motivation to learn by cultivating a more relatable learning experience. Rogers advocated for these relatable learning experiences by designing a student-centred approach to pedagogy that focuses on what the student needs, rather than the needs of the teacher and curriculum (Duchesne & McMaugh, 2019; Churchill, 2019).

For inspiration on empathetic teaching, look no further than the late, great, Rita Peirson (2013). Rita brought empathy and humanity into her classroom, putting her students' needs first. However, when I began my online training sessions, I didn't think about putting the learner first. I confess that the sessions were content-focused. I focused only on the Zoom tools and how to show my teachers how to use them. Luckily, despite this failing, my teachers learned more than I had lesson planned for. In an indirect sense, when I fumbled my breakout room management or kept talking whilst on mute, my teachers experienced these tools first as a learner, waiting for me, their teacher to get it right. When someone in their house interrupted them, they experienced the challenge of mental distraction when everyone is stuck at home. And when the internet lagged and their colleagues were hard to understand, they experienced the frustration of online communication. All these experiences were indirectly teaching them empathy for the learner experience.

There were more direct lessons in empathy, too. They felt the awkwardness of unmuting and speaking at the same time as someone else, and experienced retreating into silence to avoid such a situation again. When they couldn't find the button to be zoomed away into a breakout room, they felt the embarrassment of inadequacy in not being as tech savvy as 'everyone else'. Moreover, when they were expecting to be a passive participant with their camera off, yet had to join a collaborative Jigsaw activity or team brainstorming session, they felt what it was like to want to be a passive learner, forced into being an active one. These initial training sessions were indeed curriculum-centred but luckily, these teachers ended up learning more than just which buttons to press. They were learning how their students were going to feel when it was their turn at the wheel. They were learning how it felt to be the human in the centre of the learning experience. It created a level of empathy for their students that I could not have lesson planned for and it brought us one step closer to practicing Rita Pierson's empathetic, student-centred approach to teaching. Further observations during this second trimester of online delivery may demonstrate a more deliberate student-centred approach to my teachers' pedagogies, thanks to their own experiences last trimester.

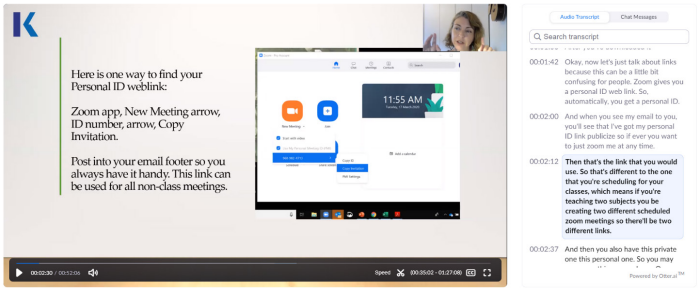


Figure 6. Screenshot of a recorded PD session: the author is presenting a Zoom PD training session using the 'share' feature to show slides. Auto transcript also shown.

The Covid-19 pandemic has forced both teachers and students to practice teaching and learning in the online space. The first three months of delivering training sessions on how to teach through Zoom, allowed me to witness a cohort of teachers who rose to the challenge of adapting to an online mode of delivery and who, despite struggling with some assumptions, finished the trimester with more empathy for their learners. I think it's fair to say that the world of online education won't be viewed as a subset of education any longer. It may just have achieved a newfound respect from teachers across the globe as an effective alternative to on-campus teaching. Further research on whether, post-pandemic, teachers wish to return to on-campus teaching or embark on a permanent online teaching career would be interesting, and if the latter is proven, would be a win for those of us who have always advocated for online teaching and learning.

References

Churchill, R., Ferguson, P., Godinho, S., Johnson, N., Keddie, A., Letts, W., Lowe, K., Mackay, J., McGill, M., Moss, J., Nagel, M., & Shaw, K. (2019). *Teaching: making a difference* (4th ed.). John Wiley & Sons.

Dean, T., Lee-Post, A., & Hapke, H. (2017). Universal design for learning in teaching large lecture classes. *Journal of Marketing Education, 39*(1), 5–16. http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=plh&AN=121559987&site=eds-live

Duchesne, S., & McMaugh, A. (2019). *Educational psychology for learning and teaching* (6th ed.). Cengage Learning Australia.

Granziera, H., Collie, R. J., & Martin, A. J. (2019). Adaptability: An important capacity to cultivate among pre-service teachers in teacher education programmes. *Psychology Teaching Review, 25*(1), 60–66. http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=eue&AN=136545289&site=eds-live

Jankowski, N. A. (2020). *Assessment during a crisis: responding to a global pandemic*. The National Institute for Learning Outcomes Assessment (NILOA). https://www.learningoutcomesassessment.org/wp-content/uploads/2020/08/2020-COVID-Survey.pdf

Pierson, R. F. (2013, May). Every kid needs a champion. *TED Talks Education*. https://www.ted.com/talks/rita_pierson_every_kid_needs_a_champion?language=en

Techwire Asia. (2020). *We've had a worldwide experiment in videoconferencing – an interview with Zoom*. https://techwireasia.com/2020/07/weve-had-a-worldwide-experiment-in-videoconferencing-an-interview-with-zoom/

United Nations Education, Scientific and Cultural Organisation. (2020). *Covid-19 impact on education*. https://en.unesco.org/covid19/educationresponse

Zoom Video Communications. (2020). *Company overview*. https://zoom.us/docs/en-us/media-kit.htm

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

A team of instructors' response to remote learning due to Covid-19. A 10.012 Introduction to Biology case study

Bina Rai[A]

[A] *Senior Lecturer, Science and Math Cluster, Singapore University of Technology and Design (SUTD)*

DOI: https://doi.org/10.37074/jalt.2020.3.2.6

In February, Singapore witnessed its first local Covid-19 transmissions and the Disease Outbreak Response System Condition, or DORSCON, level was raised to Orange, just one tier shy of the top category. As local transmissions grew and clusters began to form, Prime Minister Lee Hsien Loong announced the beginning of a circuit breaker that was to last from Apr 7 to May 4. Most workplaces were to be closed, except for those providing essential services, and schools moved to full home-based learning (Baker, 2020). The Singapore University of Technology and Design (SUTD) is a leading research-intensive global university focused on technology and all elements of technology-based design. It will educate technically-grounded leaders who are steeped in the fundamentals of mathematics, science, and technology; are creative and entrepreneurial; have broad perspectives informed by the humanities, arts and social sciences; and are engaged with the world.

As the Covid-19 pandemic dawned upon us suddenly, the university scrambled to move their courses online. The 10.012 Introduction to Biology team of instructors were presented with a sudden and urgent need to transform all learning to home-based learning (HBL). We were in the middle of our course at that time. Most of us were teaching two to three cohort classes a week. The university shared several online teaching resources and organised workshops to help us become familiar with these learning systems. Lucky for us, online learning was not a new phenomenon. We had previously developed flipped classroom content for our course and were familiar with video recording. We decided that we would proceed with an approach that was least disruptive, enabled human connection and was simple but effective.

We realised the importance of structure to the students and decided to keep our timetable as before. This consisted of one hour of flipped (mini-video recordings) lessons and an online quiz at the start of the week. Students found that the pre-class learning activities helped them to stay on track on the lesson material. Several students who had taken biology in college appreciated the flexibility that the flipped classroom offered. This was followed by two two-hour cohort sessions and a mid-week one-hour lecture. This was similar to the pre-HBL timetable, hence not disruptive as students were already used to it. The sessions were carried out using Zoom. Students commented that it was extremely helpful and fun being in Zoom classes. For convenience and safety, instructors used the same personal ID/Zoom link throughout the period of the course. We enabled the waiting room in Zoom so that we could verify the students' identity and take attendance. Recordings of lessons, when required, were only saved on our personal laptops and not on the cloud. Every lesson had typically two instructors, one would lead the class while the other would take charge of the chat box. Students would append their answers, questions and comments into the chat box.

The lesson plan for every class was blended. The rationale for this was we did not want to be overly dependent on online synchronous lectures, taking into the account that the entire nation was experiencing HBL and work from home (WFH). In addition, in the event that Zoom crashed, students could still continue with the class and watch the pre-recorded videos saved in the university's learning management system (LMS). We would start the class with a quiz or announcements, followed by an introduction to the topic of the day and the lesson plan. The lesson plan contained the exact duration they should spend on each mini-video recording for that class. Students would then disperse to watch the recordings created by the instructors. Every instructor was assigned to prepare video recordings for one week of lessons. Students provided feedback that the videos were informative and extremely helpful in helping them understand the lessons, especially because they were able to revisit and pause the videos after class until they understood. After the students had completed watching, they would return to the Zoom meeting room for a wrap-up and a question and answer session. During the video sessions, the instructors made themselves available to answer any questions via the chat box. Students were expected to complete a worksheet at the end of the Zoom class and submitted it via our LMS. This motivated the students to attend, be attentive in class, and to complete the lesson materials. Other than video recordings, we also used free open source tools and interactive online experimental simulations. This allowed the students to carry out lab experiments virtually. Students commented that they absolutely loved it!

Figure 1. Screenshots of free, online lab experimental simulator – StarCellBio. http://starcellbio.mit.edu/

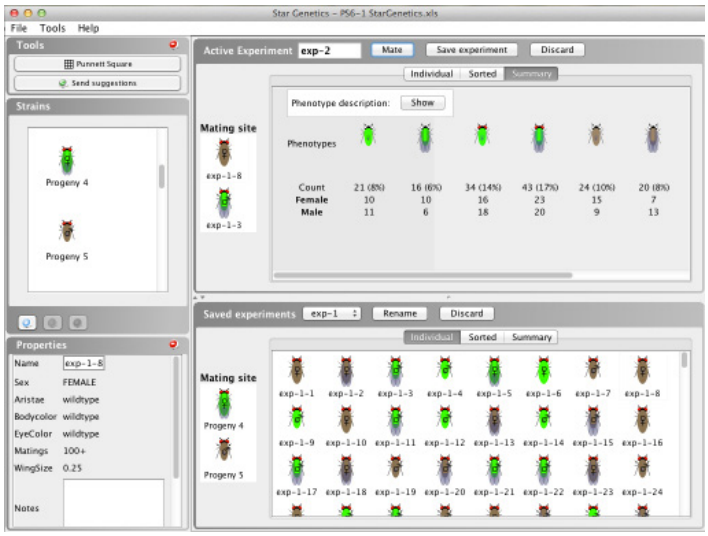


Figure 2. Screenshots of free, online lab experimental simulator – StarGenetics http://star.mit.edu/genetics/

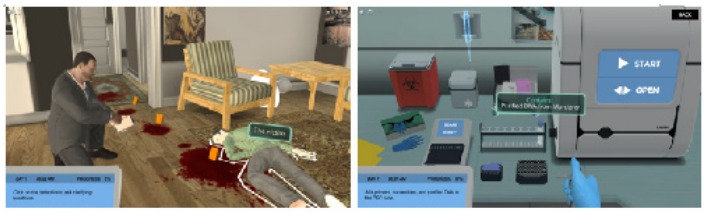


Figure 3. Screenshots of Polymerase Chain Reaction - Virtual Lab Simulations from Labster https://www.labster.com/simulations/polymerase-chain-reaction/

The other major transformation needed due to the Covid-19 situation was the modes of assessment. We decided that we would use our local LMS, specifically Blackboard as a one-stop shop. Instructors placed all the lesson material in Blackboard for self–learning from Day 1. Students appreciated the flexibility of being able to learn at their own pace, and read ahead of class to prepare themselves adequately. Students would assess lesson materials, submit weekly worksheets and homework here using the Assignment Tool. Online quizzes were conducted using the Test tool. We could no longer proceed with our standard hard-copy exams and instead we converted it to a cheat-proof, take-home assignment. The questions were released via Blackboard and the students were given a day to complete and submit via the Turnitin Direct Assignments Tool.

Our team believes firmly in enabling the human connection and made considerable efforts to engage the students during the Zoom sessions. Throughout the sessions, we would show our faces (with good lighting), call out individual student names to answer questions, constantly using the chat and poll function. We compared virtual backgrounds and took multiple screenshots of the class together. As the course lead, I focused greatly on personal and direct communication. This was not an easy task as we had 400 students. The students expressed that they appreciated the very effective and prompt communication from me whenever there were changes to assessments or lessons. I video-recorded myself informing them of the changes, made announcements via Blackboard and cohort instructors repeated these announcements at the start of each cohort. We believe that communication is an integral part of a successful remote learning experience.

Figure 4. My F06 Class.

Figure 5. My F03 Class. With Co-Instructor, Dr Leo Chen Huei.

In conclusion, our approach was well-received by our students who felt that it was well- organised and structured. It was evident that they appreciated the experiences that a blended approach towards remote learning could provide, just as much as the instructors did. I would like to acknowledge the dedication and hard work put in by the 10.012 team of instructors as well as all other teachers who have contributed tirelessly to this new norm of learning.

Figure 6. My F02 Class. With Co-Instructor, Dr Ong Eng Shi.

Figure 7. 10.012 Team of Instructors – Drs Khoo Xiaojuan, Leo Chen Huei, Julia Yajuan Zhu and Lakshminarasimhan Krishnaswamy. Absent: Dr Ong Eng Shi.

References

Baker, J. L. (2020, June 2). Singapore's circuit breaker and beyond: Timeline of the COVID-19 reality. *Channel News Asia*. https://www.channelnewsasia.com/news/singapore/covid-19-circuit-breaker-chronicles-charting-evolution-12779048

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : 2591-801X

Content Available at : http://journals.sfu.ca/jalt/index.php/jalt/index

The development and delivery of a short, multi-dimensional Study Abroad programme with a twin focus on intercultural skills and employability

Gerard Clough[A] — A — Senior Teaching Fellow for the Centre for the Development of Academic Skills, Royal Holloway, University of London

Norlene Conway[B] — B — Senior Teaching Fellow for the Centre for the Development of Academic Skills, Royal Holloway, University of London

Justin O'Brien[C] — C — Professor, Director for Undergraduate Students, School of Business and Management, Royal Holloway, University of London

Silke Placzeck[D] — D — Head, Centre for Development of Academic Skills, Royal Holloway, University of London

DOI: https://doi.org/10.37074/jalt.2020.3.2.2

Abstract

This instructional innovation paper reflects on the development and delivery of a short-term Study Abroad programme that responded to twin currents in UK higher education: internationalisation activities that seek to build the competence for negotiating cultural difference and a growing imperative to develop graduate employability for those about to enter a competitive, globalised workplace. Positioned within the literature of experiential learning and global citizenship, the paper outlines the rationale and implementation for an assessment centre approach to programme recruitment as well as a three-phase curriculum comprising (1) online and F2F pre-trip preparation, (2) a week-long study visit to Berlin and (3) a post-visit reflection articulated through critical-reflective writing and a group project exhibit. While the trip to cosmopolitan Berlin offered a useful real-world case study to explore, the main source of intercultural learning was located closer to home in the experience of students working together in project groups of diverse membership.

The Global Leadership Programme (GLP) was an extra-curricular Study Abroad initiative for undergraduate students approaching their final year at Royal Holloway, University of London. The programme, staged over six months including a week-long trip to Berlin, comprised 75 hours study time and so constituted the college's very first short-term Study Abroad programme. Although the GLP was funded for just two cycles (2016 and 2017), the experience provided programme developers with a number of insights which this paper aims to share.

We begin by relating the programme to key literature on intercultural education as well as the realities of a marketised UK higher education system which has given increasing prominence to employability as a desirable graduate outcome (Dacre Pool & Sewell, 2007). Subsequent sections outline core learning activities and integrate student testimony for support and discussion. To end, we take a Kolbian approach (1984) to reflect back but also look forward, identifying elements in the programme that show the way to a more sustainable pedagogy with greater reach in which the locus of intercultural education moves from learning abroad to learning at home.

Establishing objectives for the programme

The idea that travelling abroad can have an educational purpose has a considerable history. The Grand Tour during the nineteenth and early twentieth centuries afforded an aesthetic, linguistic and (sometimes) sentimental education for the offspring of the upper classes (Towner, 1985). Although some of this purpose still lingers on, Lewin (2010) argues that globalisation and a rise in opportunities to go abroad has shaped different objectives for initiatives that combine travel and study. These initiatives aim to deliver rich cross-cultural experiences for student participants that not only bolster knowledge but boost communicative and social confidence, enhance openness and curiosity, and strengthen critical awareness of self and others (Murphy-Lejeune, 2003; Neiva de Figueiredo & Mauri, 2013). In short, while the aim of the Grand Tour was to secure an entrée into polite society, the 21st century study trip seeks to provoke attitudinal change and the acquisition of the skills and competences that allow us to engage constructively with an inter-connected world (Kauffmann, 1992). Such objectives are often linked to the notion of global citizenship which promotes "social justice and sustainability, coupled with a sense of responsibility to act" (Reysen & Katzarska-Miller, 2013, p. 858). Martha Nussbaum (2002, p. 289), a noted global citizenship advocate, suggests a pedagogy that fosters personal development in three areas:

(1) the Socratic ability to criticize one's own traditions and to carry on an argument on terms of mutual respect for reason;

(2) the ability to think as a citizen of the whole world, not just some local region or group; and

(3) the "narrative imagination," the ability to imagine what it would be like to be in the position of someone very different from oneself

While global citizenship may have a laudable ethical objective in what Nussbaum calls the 'cultivation of humanity', there are other reasons for setting up a Study Abroad initiative that arise from the rather less rarefied conditions of a marketised university sector. Jones (2013) notes two currents running through the sector: the increase of university internationalisation activities and, at the same time, growing demand for graduates "capable of operating in culturally diverse contexts" (p.95). In exploring the beneficial relationship between these two currents, she identifies a remarkable alignment in the skill sets developed through international mobility experiences and the soft skills urgently required by employers in the knowledge economy. Her inference is that this alignment may offer dual advantage. Through the development of intercultural competences and skills, students enhance their employability in a competitive job market while the university gains benefit too in terms of key metrics (related to, for example, employability and student experience) at a time when institutional survival, in the UK at least, depends increasingly on league table positions. Of course, the tenets of Nussbaum's vision of an altruistic liberal education that advances a global good may not sit easily with such self-interest but the link between study abroad and employability is difficult to ignore and as Jones suggests, may be fruitful.

When devising our programme, the two currents identified by Jones were instrumental in shaping its underpinning objectives. The two central aims of the GLP were to:

- start building the competence for negotiating cultural difference through the tools of experiential learning and reflection (Otten, 2003).
- enhance employability by developing the professional and leadership skills valued in the global workplace including working effectively in groups of diverse membership (McGill & Beatty, 2001).

Curriculum design and pedagogy

What is the character of an effective Study Abroad pedagogy? The literature suggests three central elements. At its heart is an experiential design allowing students to transform doing into learning via a process of critical reflection that proceeds from concrete experience to observation and conceptualisation and thence to application of what has been learnt to fresh contexts (Kolb, 1984). Learning is deepened when students feel empowered to mould this process to their own purpose (Lutterman-Aguila & Gingerich, 2002, p.46) and connect together three important dimensions: the interpersonal, the intrapersonal and the cognitive (Gillespie et al., 2009). A further element identified by many educators (Che et al, 2010; Brigham, 2011; Broom & Bai, 2011) is the role of disequilibrium (or perturbation) - moments of personal struggle or difficulty that can, if adequately supported through the learning environment, provoke attitudinal and intellectual change. Such features then are central to effective Study Abroad pedagogy but, when time is scarce, need to be harnessed to a coherent and efficient curriculum structure that can enable programme objectives to be met.

The curriculum of the GLP followed a three-phase orientation-trip-reflection pattern (see Sachau et al., 2009; Broom & Bai, 2011; Richards, 2013; Montrose, 2015; Pasquarelli, 2018) in which care is taken to establish balance between opportunities for intercultural experience and structured reflection. As the next section of this paper discusses in further detail, the orientation phase of the GLP focussed on developing critical engagement with key programme themes, the trip (or encounter) phase in Berlin provided a rich case study to investigate and the final phase provided space for students to make sense of the programme experience while reflecting on their own personal development.

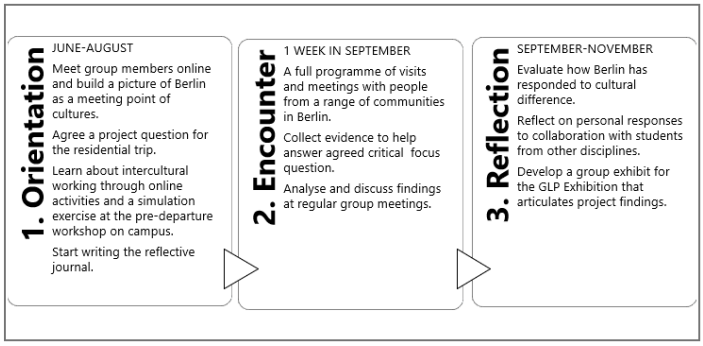


Figure 1: Curriculum design

The usual impetus for developing intercultural competence on a Study Abroad programme is the experience of being abroad itself: once dislocated from familiar surroundings, students need to make cultural (and often linguistic) adjustments and that, so it is argued, leads to appreciation of other world views and so to an awareness of the way culture shapes thought and behaviour of oneself and others. However, Scharoun (2016, p. 87) notes that it is not only interaction with the culture of the host country that is useful but also the interaction within the study group. For the GLP, it was this group interaction that provided the mainspring for developing intercultural skills and understanding. Students were purposely recruited in equal numbers from the university's three faculties (arts and humanities, sciences, and social sciences) in order to ensure a mix of disciplinary perspectives. Project groups were then carefully composed to ensure that there was diversity of disciplinary background, gender, age, ethnicity (39% of participants were from ethnic minority groups) and nationality (21% of participants were from outside the UK). Group tasks required students to work together, resolve differences and draw on an array of

perspectives and skills in a collaborative project. Through group work, students experienced both the challenges and rewards of working with peers who saw the world differently. While learning about each other's perspectives they also experienced times when it was difficult to rub along together: the disequilibrium that is central to Study Abroad pedagogy.

The curriculum aimed to bring together mixed group work and the trip to Berlin in a way that was mutually illuminating. Students would be encouraged to make connections between the experience of encountering difference at a local, personal level (group work) with observation of societal responses to cultural difference on the larger canvas of multi-cultural Berlin, past and present (the case study). The sum of this approach was an integrated, multi-dimensional model of intercultural education in which the intrapersonal, interpersonal and cognitive, as well as local and global, were tied together.

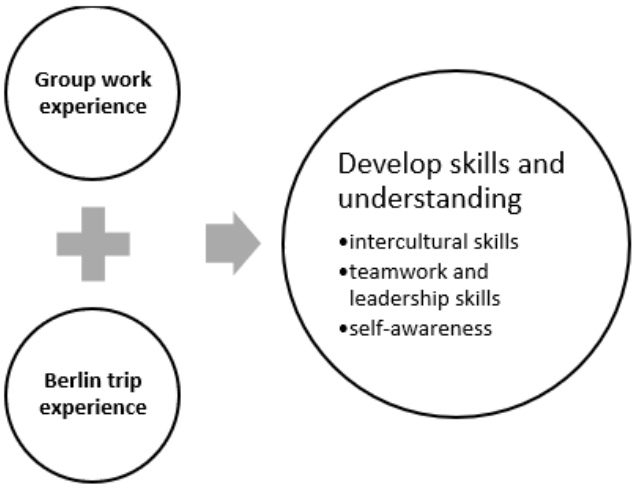


Figure 2: Programme concept

The design outlined here would also serve the employability objective of the programme. Learning to negotiate difference in groups of mixed composition enables the building of intercultural competence which, in turn, prepares students for the global workplace. Group work fosters other competences and skills valued by employers including planning and priority setting, problem-solving and evaluation, managing work-flow and time management skills (Watson, 2002). Further, the thread of reflective activity running through the programme sought to instil practical ways for students to develop awareness of self and others in the learning process. Knowing how to reflect on experience and use that reflection to make key improvements is not only a valuable intercultural asset but is useful in most professional settings.

Assessment centre selection

With the goal of enhancing employability in mind, we developed an Assessment Centre Day experience which would closely mimic the real-life challenges of a job selection process. Good et al. (1990) and York (1995) report the benefits to university students of such hands-on experience (ibid, p. 141) while The British Psychological Society (2015, p. 4) cite the developmental pay-offs for centre candidates of self-insight. In short, the Assessment Centre Day served as a useful instrument for selecting 20 successful candidates for the programme while the experience itself provided students with a real world primer on what to expect in a competitive job market.

The selection process followed a two-round process. For the first round, the programme was heavily promoted across campus via the college's webpages, social media and through staff recommendation in lectures, seminars and tutorials. Students interested in competing for a place on this all expenses paid programme were directed to an online application form in which they had to relate the programme's stated objectives and learning activities to their own personal development and life goals. This written task - part personal statement and part discursive essay - provided space for candidates to reflect in some depth on topics central to the programme (e.g. citizenship, leadership, negotiating cultural difference) as well as demonstrate a sensitivity to audience by writing in a suitably formal, concise style.

Short-listed candidates were invited to attend a second selection round, an Assessment Centre Day, comprising a full schedule of individual talks, problem-solving role-plays, interviews, psychometric tests and reflective writing. These varied exercises were devised in consultation with key sources of expertise in the college, both academic (the School of Management) and professional (the Careers and Employability Service and the Organisational Development team) in order to ensure an authentic recruitment experience. To further widen the impact on student learning, MBA and PhD students were invited to volunteer as assessors, following an approach outlined by York (1995). The student assessors found this novel, table-turning experience both enjoyable and useful.

On the day, individual performance was scored against detailed criteria to determine whether candidates demonstrated a set of desirable attributes: a professional attitude and demeanour, the ability to critically reflect on personal experience and, importantly, a willingness to work collaboratively and engage in new, challenging experiences. At a final assessor meeting following the Assessment Centre Day, scores were moderated and additional consideration was then given to the profiles of top ranked candidates to ensure that there was sufficient participant diversity.

As a selection tool, the variety of assessment activities (individual and group, oral and written) provided a rich picture of candidate performance. However, assessors noted that it was sometimes difficult to discriminate between competence and potential. If a candidate fell short in one of the activities by not demonstrating the ability to reflect critically, problem solve or collaborate with peers, how could we determine if they, nevertheless, had the willingness to develop those attributes and skills once on the programme? This was a concern given that students with the potential for personal growth would benefit most from a programme with avowed developmental aims.

Notwithstanding the above caveats, the experience of attending such an event proved valuable for all for all participating students. Ugne reflected the views of many GLP students:

> It was my first experience of what the actual assessment centres are like in real life…I think, it really provided great practice of how to deal with tasks like interviews, group exercises and reflection.

Yasmeen admitted to a deal of apprehension about the assessments but concedes that:

> …as the day went on, I realised it wasn't quite as terrifying as I initially imagined, and in fact, I left the centre with much more confidence in my own abilities. I am glad that the assessment centre was a part of the programme, not only has it prepared me well for future assessment centre days when applying for jobs, but it also made making it onto the programme feel that bit more deserved…

Phase 1: Berlin trip orientation (June - August)

Study Abroad educators emphasise the importance of pre-trip preparation. Koernig, (2007) views preparatory activity as key to the development of rapport among student participants and also between students and staff facilitators. Likewise, in their survey of short Study Abroad programmes, Mills et al (2010) identify the role of pre-trip sessions in teambuilding as well as in developing knowledge and understanding of the trip destination. In line with these objectives, the goal of the GLP pre-trip phase was to enable participants from diverse backgrounds to bond together in the development of a group research focus which would inform their visit to Berlin. This entailed exploring topics central to the programme curriculum during a three month summer vacation period, first through a series of online activities and then through an immersive role-play simulation on the day before departure.

At the outset of the GLP in June, participants were asked to work within four assigned groups and complete tasks hosted on the college's VLE as well as take part in two webinar meetings. In the first weeks online, participants engaged in ice-breaker exercises included the creation of My campus world, a personal, impressionistic map of the college in which places of social or educational importance were identified. These annotated maps were posted to a VLE pin-board and then presented and discussed within project groups as part of the first 'getting to know you' webinar. While such warmer activities aimed to foster closer ties, there was a concomitant focus on relevant theory so, for example, students discussed short introductory readings and TED talks which addressed concepts (from the fields of Management, Psychology and Education) underpinning leadership and effective group work. Other conceptual elements of the programme were also explored through readings and discussion, in particular notions of intercultural competence including Bennett's developmental continuum (1993) that proceeds from ethnocentrism to ethnorelativism. Collectively, these activities sought to help students "increase their own self-awareness and identity, such as who they are in the world, how they have been culturally conditioned to respond to others, what their own world views are" (Pasquarelli, Cole, & Tyson, 2018, p. 84) or as Zemach-Bersan (2009, p. 318) puts it: "before they unpack their bags in foreign destinations, students should be required to unpack their [own] culturally and subjectively based assumptions".

To assist the process of developing critical self-awareness, participants were asked to keep a reflective journal in which to jot down their immediate responses to programme experiences, at first arising from interaction with fellow group members and then, later, encompassing impressions of Berlin. The VLE offered detailed guidance on the reflective writing process with examples of how regular journal entries could provide useful input for reflective composition when emotional responses in the moment are digested and form the basis for more measured, critical self-enquiry. A further prompt to critical reflection was an invitation to complete the self-perception component of the Belbin team roles test (Belbin & Belbin Associates, 2009). The test attempts to score questionnaire respondents on how strongly they express behavioural traits from an inventory of nine different team roles. This exercise proved popular, raising awareness of personal strengths and weaknesses but also provoking discussion on the importance of role diversity to effective decision making within teams.

The principal work for all participants was to formulate a critical focus question for group projects that would lend direction to the field trip to Berlin. The question needed to reflect a shared interest in an aspect of the city that could a) be explored during the trip itinerary and b) engage the expertise and skills sets of all group members. To initiate discussion, group members were asked to post 3-4 items associated with Berlin that excited their interest. It could be a line of poetry, a piece of music, a black and white photograph, a blog posting, a film poster, a building, a statistic - anything that conjured up Berlin for the student. The resultant Berlin Bricolage was discussed during the second webinar, themes of common interest identified and then followed up in online pin-board discussions with the goal of producing a draft focus question in time for the day of departure. Reflecting later, GLP student Niccola underscored the usefulness of these online activities:

> I found the webinars and the exercises … helpful, as I was able to reflect on what my previous conceptions of Berlin were and gain an idea of what I was expecting from the city. It helped to clarify what I associated most with Berlin, from the capital of Hitler's regime, to the Wall, to the underground cultural scene that gave birth to Bowie's *Low* and Iggy's *Lust for Life*. It also enabled a chance to see what my group's perceptions of Berlin were; it provided a platform to discuss what we wanted to focus on and it helped to create a rapport within the group.

The pre-departure day marked a switch from a digital to a F2F environment. The relationship-building gradually

fostered online over the preceding weeks was given new vigour through a morning of immersive role-play activity and an afternoon of reflective discussion. The activities that constituted the Two Tribes role-play aimed to explore the link between cultural values and social behaviour (see also Boston & Wildenthal, 1991; Moffit, 1985; Shirts, 1977). The cohort was split into two tribes and each assigned a set of cultural values aligned with attributes in Hofstede's six dimensions of national culture (2011). These values were mapped onto distinctive locations in our campus geography: the clinical, high-tech environs of a new lecture theatre complex for the individualist A tribe and the shady forest setting of an old Victorian out-building for the collectivist B tribe. Once established in their assigned homelands, tribes were asked to devise a wedding ceremony that embodied their cultural values. This required a series of developmental steps: group discussion to decide on a set of representative wedding rituals, role allocation and improvisation, rehearsal (making use of assorted props and costumes), and, finally, a performance of the ceremony itself. For the performance, selected members from each tribe took on the roles of in-laws and travelled across campus to take part in the counterpart ceremony as wedding guests. A narrative complication was then introduced: the wedding party visitors were asked to seek asylum with the host tribe. Staff facilitated the activity, with a remit for only light touch interventions, a role that was essentially limited to introducing each task briefly, establishing an emergency stop protocol and then standing back.

In the afternoon de-briefing, students were encouraged to critique the broad-stroke cultural values enacted in the wedding ceremonies and also explore how tribal affiliations shaped behaviour, informed how one tribe saw the other and led to very different solutions to the asylum crisis. While many students enjoyed the ceremony activity, some found it unsettling, but, in the ensuing discussions, most felt that the experience had provoked thought on core themes relevant to the programme and the upcoming visit to Berlin. Yuki commented:

> …it not only served as an ice-breaker activity but also as crucial learning material to grasp how one's cultural values and norms are constructed by the surrounding environment …After finishing all the pre-departure tasks, I started imagining the scale of anxiety and stress that refugees feel on a daily basis.

Phase 2: Berlin encounter (one week in September)

When designing the programme, we gave significant thought to the choice of trip destination. Budgetary constraints meant that our choices were limited to European cities that could be reached within a flight time of an hour or two from London. Berlin immediately struck us a likely contender: it was affordable and offered a good fit for a programme that aimed to explore a range of responses to cultural difference. With its fractured history, Berlin is a city of contrasts, a place known for intolerance and persecution as well as redemption and creative regeneration. In short, it offered participants a rich case study to investigate.

Over the week, participants were taken to some of the key historical sites - including the Sachsenhausen concentration camp and the Topography of Terror museum - to reveal the dark undertow of Berlin's history during the Nazi and Cold War periods. But it was important to hear the city's other stories too and so there was a major focus on contemporary Berlin that involved meetings with community leaders working in deprived neighbourhoods, city planners formulating housing policies, business people addressing workplace diversity, and inspiring figures with refugee backgrounds leading projects that foster integration between locals and incomers. Outside the schedule of meetings and visits, participants were encouraged to record impressions of what they witnessed at street level: the way, for example, victims of the Holocaust were memorialised in shiny brass embossed letters on cobblestones or, in neighbourhoods to the west of the city, the way Muslim minorities were depicted in anti-immigration AFD posters hung from lampposts beside kebab shops.

Koernig (2007) urges trip planners to strike a balance between structured 'academic' activities, visits, and free time. In particular, he cautions against packing too many outings into each day and so not allowing enough time for reflection. This advice was sometimes difficult to follow on a trip which aimed to deliver a rounded picture of a complex, historical city within the space of just a week. On most days, at least two visits were organised with time given on three evenings for reflection, structured discussion and continuing work on group projects. This meant that the week in Berlin was often described as powerful and intense. It was only much later, in less hurried conditions, and with some distance, that students were able to take stock fully and interpret the week.

For many students, the honesty in which Berlin addressed its troubled past provoked critical reflection on values at home. For example, Aleeta compared the surprising way Berlin addressed the Holocaust with the situation in her own country:

> I began to see a pressing need for an iconic monument, memorial or historical venue in Pakistan that recognises the horrors of the 70-year old Partition, and to argue for a culture that does not romanticise martyrdom in the name of the state/religion, and sees how every life lost was precious, and maybe even avoidable. I will use this insight in the future when exploring new places, or re-analysing familiar ones - as the degree of acknowledgement of the past appears to be a way to assess a country's collective values.

Students found some initiatives both inspiring and thought-provoking. For Heena, a refugee-led enterprise centre provided a positive story of personal transformation:

> The visit to the Migration Hub inspired me by looking at people who have worked hard to achieve so much, not just for themselves, but also in helping other people living through similar experiences. It also gave a reality to the idea that the people who are suffering are not, or should not, be defined simply by this singular experience.

Others were spurred to reflection by the meetings and workshops with community leaders. Deon, for example, was moved to re-conceptualise his ideas of what makes an effective leader:

> The [Berlin]examples…demonstrated that you do not have to be the stereotypical, charismatic figure that many ideas of a leader rest on. A leader can be someone who demonstrates a desire to support others, to guide others and to show a way for others to follow. This is not necessarily by authoritative displays, but by example, pursuing a just cause that resonates with others and by acting on the behalf of, and for the benefit of others…I for one believe a good leader is one who can inspire, not just direct.

Phase 3: reflection (September - November)

This phase of the programme required participants to make sense of their programme experience: the intellectual, emotional and sensory input from both the Berlin trip and six months of group work. Students were involved in two streams of work (see illustration below). For the group work stream, participants were asked to collaborate over 4-5 scheduled evening meetings in order to progress the development of a formal exhibit that would articulate the findings of their Berlin project in a format that was polished and engaging. And for the individual work stream, participants were asked to produce a short essay reflection that offered a probing personal account of their programme journey.

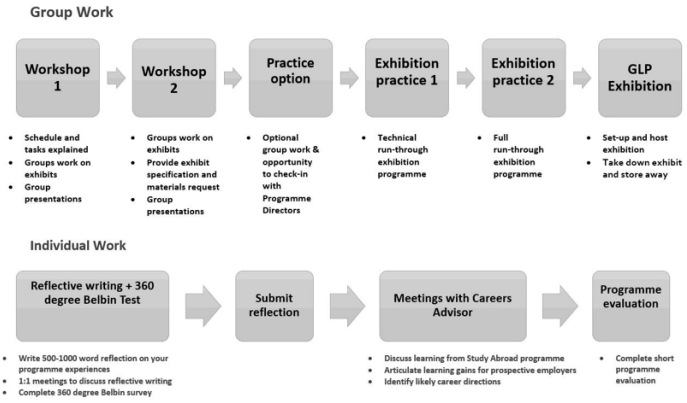


Figure 3: Group and individual work streams for the final phase of the GLP

Group work stream

Skills for employability – a key theme of the Assessment Centre Day and later explored in pre-trip activities and in meetings with Berlin professionals – was a major part of the group work stream. The exhibition, a culmination of each group's project work, was to be delivered within the formal setting of the college's prestigious picture gallery before an invited audience of academics and senior management. Exacting professional standards would therefore apply in a range of areas. Students had to manage their time carefully according to a tight group schedule whilst factoring in competing academic priorities. They also had to decide on a compelling format that combined text, visual media and performance while ensuring expenses did not exceed strict budgetary limits. Communication skills had to be honed to explain sometimes complex findings to a knowledgeable, enquiring audience, and self-presentation, in attire and in behaviour, had to be smart and demonstrate appropriate interpersonal skills.

Invariably, the most demanding challenge, as the date of the exhibition loomed, was that of working together effectively under pressure with peers from different disciplinary perspectives as well as contending with differences in social and (often) linguistic background, emotional maturity and work ethic. However, this challenge offered the richest seam of learning for meeting the twin outcomes of developing intercultural and employability skills. Some of the earlier discussion on working with groups of diverse membership was re-visited but this now had immediate practical relevance. At the scheduled workshops, participants not only discussed exhibition requirements (product) but were also asked to consider ways of resolving team issues that stood in the way of excellence (process).

Individual work stream

In the work to be completed individually the process of transforming personal experience into self-learning was assisted by a number of inputs. Students could take advantage of the second part of the Belbin team roles test, a 360 degree report in which classmates, friends and relatives are invited to offer honest observations on the test-taker's role behaviours. There was also an opportunity to have a one-on-one advice session with the Careers and Employability Service to discuss the impact of the programme on career choices. While these inputs were useful in raising self-awareness, significant attention was given to the manner in which experiences can be sifted critically with the help of a set of directive questions. The diagram below offered a useful starting point for students to begin thinking about a process for introspection.

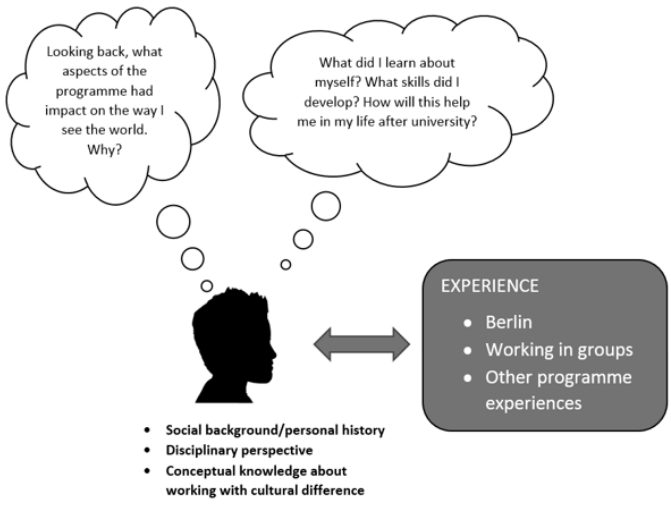


Figure 4: Reflection guidance

In the resulting reflective essays, a few clear themes emerged. First, the majority of students cited the importance of group work to their personal development. Mollie summed up her learning thus:

> Overall, I have identified three key aspects I have learnt throughout my entire journey on the Global Leadership Programme that have either affirmed my beliefs or challenge the way I think: history is important, individual experiences matter and diverse teamwork is the key to success.

Niccola viewed working together in mixed groups as an opportunity to acquire new skills:

> I have had to learn how to effectively communicate with a variety of people in different ways and listen to others in order to present our project well. Our group has been effective in utilising our different skill sets, whether it is through design or structuring our project, I feel as if we have all had a great deal of input into how we present our project. I have really enjoyed working with my group and feel we have pushed each other to think about issues differently as well as worked together to explore the issues most fascinating to us about Berlin.

For many, working in groups of diverse membership galvanised thought on career trajectory as Amie attests:

> The programme has certainly made me more aware of my position in a team; I am confident in leading tasks with a more creative or abstract focus, but am happy to collaborate to get things done. It has also made me aware of my interest in business. As a result of this, I have looked into a career in commercial law as a solicitor, a job where teamwork is crucial.

For Joanna, the GLP suggested a path that would enable her to pursue her passions:

> It has inspired me to research writing as activism which coincides wonderfully with my dissertation topic….not only that but I am more enthusiastic than ever to give back to those around me and am considering a life in volunteering or not-for-profit

While students identified the developmental rewards of group working and an increasing awareness of career pathways, there were a significant number that mentioned quite profound attitudinal change as well as a growing sense of personal confidence. Yasmeen finished her reflection with these words:

> Overall, the GLP has provided me with many valuable experiences that have changed my ways of thinking about key issues and equipped me with skills that I think will allow me to approach new situations and cultures with more confidence.

Sophie too, looking back at the programme in its entirety, concludes:

> On reflecting back to the interview process and applying for the GLP, I was definitely unsure of what to expect and this then in turn made me nervous that the programme would not benefit me entirely in the ways I had hoped. These hopes were to build my confidence in speaking to others, working as a team and also working as an individual, all whilst grasping and taking in historical and cultural experiences. However, now that the programme has finished, I can confidently say that I was completely wrong in my hesitation. The trip to Berlin and also the process leading up to it has acted as a catalyst to all of these skills which I had wished to gain or improve and has allowed me to develop much further as an individual…

Conclusion

Recollecting the GLP with the tranquillity afforded by the passage of a couple of years, it is clear that the experience of programme design and delivery raises a number of questions, especially for a faculty team new to the field. Although the stated objectives communicated succinctly the intercultural and employability focus of the GLP, faculty and students were sometimes perplexed by the title of the programme itself. At an end of programme focus group, students felt that 'global leadership' suggested a business or corporate purpose that could alienate many prospective candidates while others felt that it connoted an elitist aim: an exclusive training course for the world leaders of tomorrow. A title more closely connected with the tenets of global citizenship (Falk, 1993) would perhaps have been better but then, as Zemach-Bersin (2009, p. 315) points out, global citizenship is a contested idea and is, moreover, ill-defined and insufficiently understood.

Another issue related to the role of Programme Directors in mediating and facilitating learning with the aim of giving power to the students in order to provide them with opportunities to grow (Broom & Bai, 2011, p. 50). In feedback, some students said they expected more overt direction from faculty in leading learning, and when group disagreements occurred, there was a further expectation that faculty would step in to troubleshoot. Such expectations ran counter to the aims and pedagogy of the programme but, in hindsight, more could have been done to explain our facilitating role at the very outset of the programme so that students could appreciate the developmental value of students addressing group conflict through their own resources.

The GLP was an extra-curricular programme and as such did not need to follow an assessment scheme that allocates grades against set marking criteria. The group project provided a clear developmental thread and the overwhelmingly positive reception of project findings at the exhibition provided members with a tangible measure of success. At an individual level, the critical-reflective essay enabled students to discuss their progress over six months and identify key points of learning. From a quality assurance

point of view, a focus group and programme evaluation survey (48% student participation rate) was administered over both cycles. The survey identified areas for improvement (largely administrative) and also highlighted strengths: 100% of survey respondents strongly agreed or agreed that the GLP enhanced employability while a similar figure felt that it enabled development of intercultural competence (62% strongly agreed, 26% agreed, and 12% were neutral). However, evaluation - whether of student development or of programme quality – was based wholly on subjective means of assessment. To achieve a more comprehensive picture of programme achievement, it would be useful to augment self-reports with more objective assessment approaches. This might involve adoption of commercially available assessment tools such as the Intercultural Development Inventory (IDI) (Hammer et al., 2003) or the Cross-Cultural Adaptability Inventory (CCAI) (Davis & Finney, 2006).

Looking back, perhaps the most significant challenges facing the GLP were the inter-related issues of cost and reach. The cost of travel, accommodation and subsistence for the trip to Berlin meant that only 20 students (from a year group of approximately 3,500) could be funded on the programme. The withdrawal of that funding from an external benefactor then led to its eventual demise. However, the limited reach of the GLP always made the justification for the programme questionable: no matter how valuable the intercultural learning was, it would only ever be available to a select few. Teekens (2013) asks, "what do we do with the vast majority of students who are not exposed to intercultural learning and an international experience?". For the GLP, there is no adequate answer to this question at least for the programme as it was then configured. But perhaps we should take heart from Jones (2013, p. 102) who urges us to extend the benefits of an intercultural education beyond the mobile few to the many. Her solution is simple. "We should make better use of the multi-cultural contexts in our universities and in the local population".

Such an internationalisation at home approach has several advantages. Intercultural education is no longer dependent on funding from financial benefactors or students able to afford expensive foreign travel. By shifting the location for intercultural education closer to home, costs are saved, and so programme reach can be extended. Further, the pedagogy outlined in this paper would be especially relevant as the main source of experiential learning would be found in local diversity (Peng et al., 2015): students from across social, disciplinary and ethnic divides working together and learning from each other. For case studies on how communities respond to cultural difference, a short ride to one of the many multi-ethnic neighbourhoods in nearby London would provide rich exemplars. In short, the main objectives of the GLP – the development of intercultural and employability skills - could be achieved without the need for foreign travel. After all, the goal of building intercultural competence is not dependent on boarding a plane to a foreign destination but a flight of a different kind: an imaginative stepping away from familiar ways of seeing and looking at the world through the eyes of others.

References

Belbin, & Belbin Associates. (2009). *The Belbin guide to succeeding at work*. A&C Black.

Bennett, M. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience*, (pp. 21-71). Intercultural Press.

Boston, J. & Wildenthal, C. (1991). *Heelotia: A cross cultural simulation*. Stanford: Stanford Program on International and Cross-cultural Education.

Brigham, M. (2011). Creating a global citizen and assessing outcomes. *Journal of Global Citizenship & Equity Education, 1*(1), 15-43. https://journals.sfu.ca/jgcee/index.php/jgcee/article/view/27

Broom, C. & Bai, H. (2011). Exploring service learning pedagogy as citizenship development. *Journal of Global Citizenship and Equity Education, 1*(1), 44-59.

Che, M., Spearman, M. & Manizade, A. (2010). Constructive Disequilibrium: Cognitive and Emotional Development treatment through Dissonant Experiences in Less Familiar Destinations. In R. Lewin (Ed.) *The handbook of practice and research in study abroad: Higher education and the quest for global citizenship* (pp. 99-116). Routledge.

Dacre Pool, L. & Sewell, P. (2007). The key to employability: developing a practical model of graduate employability. *Education+Training, 49*(4), 277-289. https://doi.org/10.1108/00400910710754435

Davis, S. L., & Finney, S. J. (2006). A factor analytic study of the cross-cultural adaptability inventory. *Educational and Psychological Measurement, 66*(2), 318-330. https://doi.org/10.1177%2F0013164405278571

Falk, R. (1993). The making of global citizenship. *Global visions: Beyond the new world order,* 39.

Gillespie, J., Braskamp, L., & Dwyer, M. (2009). Holistic student leaning and development abroad. In R. Lewin (Ed.) *The handbook of practice and research in study abroad: Higher education and the quest for global citizenship* (pp. 346-364). Routledge.

Good, L. K., Sternquist, B. J. & Phillips, L.A. (1990). The Assessment Center As An Experiential Classroom Exercise. *Developments in Business Simulation and Experiential Learning*, 17.

Hammer, M., Bennett, M. & Wiseman, R. (2003). Measuring intercultural sensitivity: The Intercultural Development Inventory. *International Journal of Intercultural Relations, 27*(4), 421-443. https://doi.org/10.1016/S0147-1767(03)00032-4

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online readings in psychology and Culture, 2*(1), 8.

Jones, E. (2013). Internationalization and employability: The role of intercultural experiences in the development of transferable skills. *Public Money & Management, 33*(2), 95-104. https://doi.org/10.1080/09540962.2013.763416

Kauffmann, N. L. (1992). *Students abroad: Strangers at home. Education for a global society.* Intercultural Press, Inc.

Koernig, S. K. (2007). Planning, organizing, and conducting a 2-week study abroad trip for undergraduate students: Guidelines for first-time faculty. *Journal of Marketing Education, 29*(3), 210-217. https://doi.org/10.1177%2F0273475307306886

Kolb. D. (1984). Experiential learning: Experience as the source of learning and development. Prentice Hall.

Lewin, R. (2010). *The handbook of practice and research in study abroad: Higher education and the quest for global citizenship*. Routledge.

Lutterman-Aguila, A., & Gingerich, O. (2002). Experiential pedagogy for study abroad: Educating for global citizenship. *Frontiers: The Interdisciplinary Journal of Study Abroad, 8,* 41–82. https://doi.org/10.36366/frontiers.v8i1.94

McGill, I. & Beaty, L. (2001). *Action Learning: a guide for professional, management & educational development*. Psychology Press.

Mills, L. H., Deviney, D. & Ball, B. (2010). Short-term study abroad programs: A diversity of options. *The Journal of Human Resource and Adult Learning, 6*(2), 1.

Moffitt, B. (1985). *The Kampei Game*. World Christian Curriculum Project

Montrose, L. (2002). 'International study and experiential learning: The academic context'. *Frontiers: The Interdisciplinary Journal of Study Abroad, 8*(2), 1-15. https://doi.org/10.36366/frontiers.v8i1.91

Murphy-Lejeune, E. (2003). An experience of interculturality: Student travellers abroad. In G. Alred, M. Byram & M. Fleming (Eds.), *Intercultural experience and education*, pp.101-113.

Neiva de Figueiredo, J. & Mauri, A. J. (2013). Developing international managerial skills through the cross-cultural assignment: Experiential learning by matching US-based and international students. *Journal of Management Education, 37*(3), 367-399. https://doi.org/10.1177%2F1052562912437335

Nussbaum, M. (2002). Education for citizenship in an era of global connection. *Studies in Philosophy and Education, 21*(4-5), 289-303. https://doi.org/10.1023/A:1019837105053

Otten, M. (2003). Intercultural learning and diversity in higher education. *Journal of studies in international Education, 7*(1), 12-26.

Pasquarelli, S. L., Cole, R. A., & Tyson, M. J. (2018). P*assport to change: Designing academically sound, culturally relevant, short-term, faculty-led study abroad programs*. Stylus Publishing.

Peng, A. C., Van Dyne, L., & Oh, K. (2015). The influence of motivational cultural intelligence on cultural effectiveness based on study abroad: The moderating role of participant's cultural identity. *Journal of Management Education, 39*(5), 572-596. https://doi.org/10.1177%2F1052562914555717

Reysen, S., & Katzarska-Miller, I. (2013). A model of global citizenship: Antecedents and outcomes. *International Journal of Psychology, 48*(5), 858-870. https://doi.org/10.1080/00207594.2012.701749

Richards, J. C. (2013). Curriculum approaches in language teaching: Forward, central, and backward design. *Relc Journal, 44*(1), 5-33. https://doi.org/10.1177%2F0033688212473293

Sachau, D., Brasher, N., & Fee, S. (2010). Three models for short-term study abroad. *Journal of Management Education, 34*(5), 645-670. https://doi.org/10.1177%2F1052562909340880

Scharoun, L. (2016). Short-term study tours as a driver for increasing domestic student mobility in order to generate global work-ready students and cultural exchange in Asia Pacific. *Perspectives: Policy and Practice in Higher Education, 20*(2-3), 83-89. https://doi.org/10.1080/13603108.2015.1075917

Shirts, R. G. (1977). *Bafa Bafa - A cross culture simulation*. Simile II.

Teekens, (2013). Internationalisation at home – Crossing other borders. *University World News*. https://www.universityworldnews.com/post.php?story=20130613084529186

The British Psychological Society (2015). *Design, implementation and evaluation of assessment and development centres - best practice guidelines*. http://www1.lsbu.ac.uk/osdt/materials/BPSGuidelines.pdf

Towner, J. (1985). The grand tour: A key phase in the history of tourism. *Annals of tourism research, 12*(3), 297-333. https://doi.org/10.1016/0160-7383(85)90002-7

Watson, P. (2002). *Innovative teaching, teamwork and generic skills in the university environment*. Celebrating teaching at Macquarie, Macquarie University, NSW, 28-29 November, 2002. Macquarie University.

York, K. M. (1995). Experiential and creative management exercises using an assessment center. *Journal of Education for Business, 70*(3), 141-14. https://doi.org/10.1080/08832323.1995.10117740

Zemach-Bersin, T. (2010). *Selling the world: Study abroad marketing and the privatization of global citizenship*. In R. Lewin (Ed.) *The handbook of practice and research in study abroad: Higher education and the quest for global citizenship* (pp. 325-342). Routledge.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

How Sarah Kauss turned her drinking bottle start-up S'well into a $100m enterprise: Teaching business case study

Irene Paniagua Martin[A] [A] *Management with Marketing student, Royal Holloway University of London, Singapore*

Justin O'Brien[B] [B] *Professor, Executive Director of Postgraduate Programmes, Surrey Business School, University of Surrey*

DOI: https://doi.org/10.37074/jalt.2020.3.2.3

Abstract

This case study tracks the entrepreneurial journey taken by female founder Sarah Kauss in developing a category-defining premium drinking bottle. S'well was created using a low budget, word-of-mouth community and unpaid celebrity endorsement strategy. It was established as a fashion power brand through carefully crafted, high end, retail and charity collaborations. Historically, portable water storage had been framed as merely functional products. Former Manhattan accountant Sarah Kauss helped redefine the category as a modish accessory solution that also countered the environmental problem of disposable plastic waste, using a double organic business strategy. S'well has been flatteringly described by Vogue as a true original with a delicious Midas touch, and CNN as 'hands down the best water bottle for temperature control' (S'well.com, 2020). However, plagued by brand-damaging counterfeiters and losing traction from the historically powerful co-created social media promotions, was it time for an important third pivot? This armchair teaching case study was developed from the lead author's digital marketing coursework, as part of the Royal Holloway BSc Management programme at Kaplan Singapore. The case was designed for use in marketing, strategy and entrepreneurship under- and postgraduate modules.

The early S'well

Qualified American accountant Sarah Kauss was hiking in the Arizona desert with her entrepreneur mother in 2009 when her aha moment for ideating a fashionable, upmarket beverage container landed. Her elucidating pain point was having to refresh and rehydrate herself with warm drinking water. When, on this fateful hike, Kauss's mother asked what she would like to do with her life if 'anything was possible' she answered "create a better water bottle that looked good and actually kept things cold". The idea, that was to be known as S'well, had been born.

From her early college days at Boulder, Colorado, Kauss had enthusiastically pledged to avoid single-use plastic. But well into her top six accountancy career, when out with friends back home in New York, Kauss had felt embarrassed to pull out her bumper sticker branded water bottle. Its clunky carabiner carrying device, and unsophisticated, functional Colorado camping vibe, provided a look that was definitely not modish in Manhattan (Rockwood, 2010). Sarah had noticed that with career success over time, her suit, shoes and handbags had improved to reflect her growing status and income level, but reflected that "my water bottle still looked like I was an undergraduate" (Kobie, 2018). Her second Eureka insight was tapping into the desire for successful city workers to be socially responsible whilst looking cool.

Modelling herself as a typical consumer (a well-educated, working professional) with S'well very much a 'for me' product, Kauss had identified a gap in the market and was inspired to create a premium, chic, reusable water bottle for the affluent fashion-forward set. She imagined a multi-purpose hot or cold liquid container that would not only look great but also 'do good' by keeping single-use plastic bottles out of landfills and away from the oceans. This vision was subsequently clearly articulated in the company tag line: 'We design more ways to use less', and its essence encapsulated in the company mission – 'hydration that looks good and does good'.

One woman & 3,000 water bottles

Working from her New York apartment as the sole employee in 2010, Kauss found a Chinese manufacturer and produced as many gender-neutral, Pantone 312, ocean blue coloured bottles as she could fit in her modest apartment, the first batch boasted a grand total of 3,000 double-insulated, stainless-steel bottles (Roberts, 2014a). Early on, Kauss was reluctant to ask for help and seek advice from her formal and informal networks, or leverage opportunities to learn from other entrepreneurs, lamenting that she just "wasn't confident enough to ask mentors for help" (Kobie, 2018).

Having always retained 100 percent of the company equity, and subsequently been consistently strapped for development capital, Kauss was forced to embrace low-cost marketing opportunities. She used an authentic, word-of-mouth (WoM) brand building strategy which was inherently slow and steady at first, initially based around selling products to friends and family. With both her personal venture funds and friends' sales avenue thoroughly exhausted, she was left with just US$2,000 of her initial US$30,000. To increase sales distribution channels, she proceeded to hit the pavement of well-to-do neighbourhoods to sell her brainchild products door-to-door. Her personal sales pitch emphasised the thin rim, open neck, an ergonomic grip, and condensation-free design that protected even the gentlest of hands from the heat or cold of the contents.

Initially, many potential distribution partners were skeptical of S'well's US$35 consumer price point. Her grandfather joshed that she would have sold more if she had put water in the triple-walled, wide-mouthed containers, and was convinced that no one was going to pay 35 dollars for a water bottle. A bottle that, explicitly, could not even be put in a dishwasher. However, Kauss was convinced that there was an unfilled need that the market had missed, creating an aesthetic, premium offering that tapped into the intangible psychological benefits of peer esteem and do-good altruism. She conceived the product not merely as a reusable water bottle, but as a hydration fashion accessory. The Harvard Business School graduate reflected that it was important that she had put her own capital at risk in a leap to create a new product category. Launching into an unknown, under-explored space created significant entrepreneurial doubt, a large personal financial stake helped galvanise her motivation, reflected Kauss with serious skin in the game.

Simultaneously attempting to find 'the right fit' low cost promotion and go-to-market distribution channels, Kauss's Public Relations (PR) plugging efforts finally paid off when, one day, the editor of Oprah Winfrey's O magazine agreed to feature S'well in their next publication. Kauss later recognised this as her first inflection point, the key pivot move away from a one-woman, single product variant operation, to a multi-colour, scaled-up production (boasting six, vibrant Pantone hues) and much wider distribution (Burns, 2015). As a trained accountant, Kauss was keenly aware of the risks involved in scaling up too quickly. The Oprah exposure effect had the potential to cause an overnight surge in demand and profitable sales, but risked terminal brand credibility damage if orders could not be fulfilled. Additionally, poorly controlled growth could put huge pressure on the company cash flow, as forecast orders would need funding prior to any corresponding sales revenue flows. Kauss took a leap of faith to commission additional colour options, hoping that the promise of free national publicity from the O magazine could represent the big break she needed. The Oprah effect was enormous and was a major factor in the initial online explosion of S'well's business.

Cause related word-of-mouth endorsements

From the outset Kauss was committed to help create and sustain a positive change towards wastage, effectively communicated using an empowering, pro-society message; "always fashion functionable, gives back to a great cause". Charitable promotional collaborations, linked to special editions (e.g. hot pink for Breast Cancer, RED for AIDS), drove social media coverage and sales (S'well, 2018). The brand launched the same year as Instagram, 2010, and relatively quickly, user-generated content (UGC) and electronic word-of-mouth (eWoM) from customers helped create and sustain brand awareness. Kauss sought to capitalise on a society that was becoming ever more environmentally aware, believing that S'well could take a significant leadership role in helping the plastic waste agenda. Over time S'well would go on to support a wide range of charities, including: UNICEF, Breast Cancer Research Foundation, LonelyWhale, RED, WaterAid and American Forests.

S'well also benefited from celebrity fan exposure in its early promotional efforts to craft an aspirational brand. Hollywood A-lister fans included Tom Hanks, Ellen DeGeneres, Julia Roberts, and Guy Pearce, luminous stars who were all keen to associate themselves with planet-saving S'well bottles through posts on social media (Mishev, 2015). Pearce even ordered 70 bottles for his The Rover movie cast and crew. When actress Kaley Cuoco (The Big Bang Theory) posted an Instagram photo holding a hot-pink S'well bottle, it generated website crashing levels of traffic (Roberts, 2014). Over time, the water drop-shaped container became a symbol of the increasingly vitriolic war against plastic bottles and established itself the latest eco-fashion accessory (Jiang, 2019). Even its major inconvenient shortcoming, hand wash only, did not seem to be a problem in the end.

Wholesale expansion phase

Kauss positioned S'well as a premium brand solution, a strong status symbol, by wholesaling not only through up-market, convenience food purveyors but alongside quality fashion and gift brands, too (*CNBC*, 2019). Only a year after launch, Kauss had managed to place S'well bottles into 600 independent retail stores across the U.S. (Weisul, 2017), eventually including distribution through top-end brands such as: Starbucks, Whole Foods, Neiman Marcus, Apple (Cuppertino) and J. Crew. In 2014, the company generated $10 million in sales, growing five times to $50 million the year after, and doubling again to $100 million in 2016 (Little, 2016), selling over 20 million bottles to 75 countries worldwide (Chappell, 2019). Underscoring its powerful fashion credentials, customers owned on average a collection of 5.5 S'well bottles, stoked by fashion show runway-like launches of twice-yearly special and limited editions (Kauss, 2016; Clifford, 2019). Unsurprisingly, Kauss started to receive major industry recognition for S'well's development, it was named in the Inc. 500 list of fastest-growing, privately-held companies (#99) and ranked #1 as the Fastest-Growing, Women-Led Company by the Women Presidents' Organization (Flanagan, 2020). However, this success did not go unnoticed, as several competitor copycat and counterfeit bottles emerged globally.

The Starbucks effect

Having been spotted in a magazine, Starbucks first agreed to carry S'well bottles in 120 of its stores in 2013 and quickly sold out in just a few weeks, contributing to rapid expansion growth phase, in what was the startup's second major pivot (Grothaus, 2015). Collections of cool and colourful beverage containers were subsequently rolled out across thousands of Starbucks stores, including limited edition bottles made just for the coffee giant. S'well was frequently featured on Starbucks' Instagram account (with 18.4 million followers), helping the bottle maker increase its online sales by 370% in 2015 (Chapell, 2019). In 2017, S'well created the tropical bottle design in partnership with Lilly Pulitzer and Starbucks. The bottle was sold out within a day of launch, and popular demand crashed the coffee chain's website (Weisul, 2017). Acknowledging the exceptional consumer growth, and significant consumer demand, S'well started to develop its eCommerce infrastructure, following the launch of the new Swellbottle.com, to avoid the website crashing every time a celebrity posted a picture with the bottle on social media (One Rockwell, 2018).

Copycats, the illegal counterfeiters

Despite successfully achieving $100 million in sales in 2016, the discovery that hundreds of sellers were peddling counterfeit bottles was not the kind of attention Kauss wanted to receive (Clifford, 2019). Dozens of fake sellers were found, with many clustered on a single Chinese marketplace website called dhgate.com. Copycats were even found selling on major platforms such as Amazon and Walmart, and also linking from Instagram advertisements. Kauss realised that most online searches for S'well originated from Amazon (where she was also selling) and identified that consumers were buying her company's products from unauthorised sellers, in some cases at three times the actual price. This led to several bad reviews on Amazon, with many consumers criticising the brand for being overpriced (Clifford, 2019). One unethical producer was tracked back to the same town in China as the authorised manufacturer, a discovery that made all of the blood come out of Kauss's face (Gifford, 2019). Particularly galling was the moment early on when Kauss was presented with a S'well business card (including the trademark TM) by a stand holder flogging knock offs of her bottles at a Hong Kong trade show. Kauss adroitly realised that she needed to develop an anti-counterfeiting capability for her firm (Gifford, 2019). Attention grabbing, fast-growing, premium sales in a new market segment was of course always likely to generate competition, but Kauss was operating only with stock in her apartment at the time. Imitation is not always the highest form of flattery, it seems.

A robust and concerted response to counterfeiters' unethical trading was mounted using legal professionals. The privately-owned company also decided to cease disclosing its revenue performance. Kauss explained; "the more we shared, the more we became a target of companies looking to capitalize on our success" (Clifford, 2019). S'well was then obliged to rigorously enforce its intellectual property (IP) rights for the products, distinctive design, as well as trademarks, copyrights and patents worldwide. And although it has managed to track down many of the unknown sellers and copycats, legal channels have proven to be expensive, time-consuming and rarely effective in delivering commensurate monetary compensation. Moreover, the piracy threat still remains, requiring an ongoing, significant management focus, and commensurate financial resources to keep the online space safe of copycats (S'well, 2020).

Digital marketing capability

Sarah Kauss had aggressive plans for S´well to become a billion-dollar company (Mikel, 2017). But she had noticed that her organic social media marketing, notably on Instagram (using a once-a-day posting cadence), was no longer working as well as it once had. Kauss, therefore, decided to partner with a marketing agency, Curalate, to bolster its content marketing activity and catalyse further UGC (DigitalCommerce360, 2019). By 2020, with celebrity influencers increasingly commercialised, widespread algorithm changes across the major social media platforms were being implemented. With slowing user number growth, tech platform hosts needed to squeeze more advertising dollars from their audiences, by sweating their prime real estate and giving less away for free. More prominence in user feeds was being given to paid or boosted advertisements, inhibiting the audience reach of the organic (unpaid) user-generated content that S'well had previously relied upon. For example: Instagram's e-commerce development 'checkout' enabled shoppers to complete transactions without leaving Instagram, hence significantly reducing website referral traffic for many brands (Instagram, 2020). Strong third-party distribution, including collaborations with the likes of Starbucks and Amazon, had meant that historically S'well had not been overly dependent on using a paid digital marketing capability to drive business to its eCommerce engine. Was this moment another (third) inflection point for the hydration stylist?

What happens next?

By 2020 S'well bottles were to be found habitually in yoga studios, office cubicles and even children's school bags. Tapping into customer feedback, S'well had launched small (for children's' pack lunches) and larger (wine bottle size for adult picnics) bottles. Other product variants had also been rolled out (see Appendix A) seeking to expand the brand into other product lines, including food containers, travel mugs and reusable straws.

Over the years, S'well's success had inevitably attracted attention, from unethical competitors who were not always playing fair. But Kauss pondered if her double organic (funding and digital marketing) strategy was sufficient to propel her decade-old business to achieve full unicorn (US$1bn valuation) status.

Figure 1: Author Irene posing with a S'well bottle.

Case discussion questions

1. Describe the gap in the market that caused Sarah Kauss to risk all her savings and launch S'well?
2. What were S'well's unique selling points? How does the brand command a premium?
3. Explain how S'well's low spend marketing evolved.
4. Evaluate the strengths and weaknesses of S'well's organic-only business growth strategy?
5. What unresolved marketing challenges does Kauss face, and how would you recommend she address them?

References

Agius, A. (2015). The 4 essentials to building your brands on social media. *Entrepreneur*, https://www.entrepreneur.com/article/244677

Algesheimer, R., Borle, R., Dholokia, U., & Singh, S. (2010). The impact of customer community participation on customer behaviours: An empirical investigation. *Marketing Science, 29*(4),756-769. https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

Berger, J. A., Sorensen, A. T., & Rasmussen, S. J. (2010). Positive effects of negative publicity: When negative reviews increase sales. *Marketing Science, 29*(5). https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

Burns, H. (2015). Five defining moments in the evolution of S'well. BizWomen, *The Business Journals,* https://www.bizjournals.com/bizwomen/news/profiles-strategies/2015/03/5-defining-moments-in-the-evolution-of-swell.html?page=all.

Chappell, C. (2019). How S'well turned water bottles into a fashion accessory and built an empire. *CNBC*. https://www.cnbc.com/2019/10/01/how-swell-turned-water-bottles-into-a-fashion-accessory.html

Clifford, S., (2019). The cutthroat battle between S'well and its bougie water bottle copycats. *Marker*. https://marker.medium.com/the-cutthroat-battle-between-swell-and-its-bougie-water-bottle-copycats-422bd1cd7b05

CNBC Make It. (2019, August 30) How S'well leveraged Starbucks to become a status symbol. https://youtu.be/UOsGWxUr1vI

CNBC Business News. (2017, June 15) Strategies for success from S'Well founder Sara Kauss. https://youtu.be/Sum4QUiSz1Q

Dawar, N. & Pillutla, M., (2000). "Impact of product-harm crises on brand equity: The moderating role of consumer expectations". *Journal of Marketing Research, 37*(2), 215-26. https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

DigitalCommerce360. (2019) *Why S'well's tweaking its Instagram strategy.* https://www.digitalcommerce360.com/2019/06/21/why-swell-is-tweaking-its-instagram-strategy/

Dooley, J. (2019). *How S'well uses Curalate to drive sales with AI + user-generated content*. Cickz Marketing Technology Transformation .https://www.clickz.com/swell-curalate-user-generated-content/255492/.

Flynn, M. (2018). NRA supporters are blowing up Yeti coolers. Yeti says it's all a big mistake. *The Washington Post.* https://www.washingtonpost.com/news/morning-mix/wp/2018/04/24/nra-supporters-are-blowing-up-yeti-coolers-yeti-says-its-all-a-big-mistake/.

Gensler, G., Völckner, F., Liu-Thompkins, Y. & Wiertz, C. (2013). Managing brands in the social media environment. *Journal of Interactive Marketing, 27*, 242-256. https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

Grothaus, M., (2015). How S'well designed its way into 3,300 Starbucks stores. *Fast Company.* https://www.fastcompany.com/3051047/how-swell-designed-its-way-into-3300-starbucks-stores.

Henning-Thurau, T., Gwinner, K. P., Walsh, G. & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the internet?. *Journal of Interactive Marketing, 18*(1), 38-52. https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

Instagram. (2019). New to Instagram shopping: Checkout. *Instagram*. https://business.instagram.com/blog/new-to-instagram-shopping-checkout.

Jiang, I. (2019). From Casper to Glossier, there 12 new brands transformed the world of retail in the last decade. *Business*

Insider Singapore. https://www.businessinsider.sg/brands-that-transformed-retail-industry-last-decade-peloton-casper-glossier-2019-11?r=US&IR=T.

Keach, S. (2019). Instagram 'lost followers' bug confirmed as millions vanish overnight. *The Sun*. https://www.thesun.co.uk/tech/8417948/instagram-lost-followers-bug/.

Kobie, N. (2018). How S'well founder Sarah Kauss built her water bottle empire. *Wired Magazine*. https://www.wired.co.uk/article/swell-water-bottles-sarah-kauss-startup-advice

Kuksov, D., Shachar, R. & Wang, K. (2013). Advertising and Consumers' communications. *Marketing Science, 32*(2). https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

Levenson, E. (2018). NRA supporters are blowing up their expensive YETI coolers over a cancelled discount. *CNN*. https://edition.cnn.com/2018/04/24/us/yeti-coolers-nra-explode-trnd/index.html.

Little, K. (2016). How S'well grew from a one-woman operation to $50M in sales. *CNBC*. https://www.cnbc.com/2016/04/04/how-swell-grew-from-a-one-woman-operation-to-50m-in-sales.html.

Liu-Thompkins, Y. (2012). "Sending viral content: The role of message and network factors". *Journal of Advertising Research, 52*(4). https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2.

Loudenback, T. (2016). "It's sort of unbelievable": A reusable water bottle that won over Starbucks' CEO could reach $100 millions in sales this year. *Business Insider Singapore*. https://www.businessinsider.sg/swell-water-bottle-ceo-sarah-kauss-2016-6?r=US&IR=T.

Mikel, B. (2017). From $30,000 to $100 Million: The ingenious design strategy that transformed this brand. *Inc*. https://www.inc.com/betsy-mikel/from-30000-to-100-million-ingenious-design-strategy-that-transformed-this-brand.html.

Mishev, D. (2015). How a thirst for fashion is driving sales for this hot accessory. *Entrepreneur*. https://www.entrepreneur.com/article/253509

One Green Planet. (2020). FIJI water to phase out single-use plastic water bottles!. *OneGreenPlanet*. https://www.onegreenplanet.org/environment/fiji-water-phase-out-single-use-plastic-bottles/.

One Rockwell. (2018). *S'well, the brand's new digital hydration station*. https://www.onerockwell.com/swell-3/.

Parr, S. (2017). S'well successfully "taps" social media presence and influence. *Medium*, https://medium.com/@shannoneparr/swell-successfully-taps-social-media-presence-and-influence-6-5-2017-d53d9d2daf3b

Pasquarelli, A. (2020). S'well goes beyond the bottle in largest campaign yet. *AdAge*. https://adage.com/article/cmo-strategy/swell-goes-beyond-bottle-largest-campaign-yet/2223716

Roberts, D. (2014). S'Well founder Sarah Kauss on starting up and being a female entrepreneur. *The Entrepreneur*. October 27 https://www.entrepreneur.com/article/238997

Roberts, D. (2014). How S'well swelled. *Fortune*. https://fortune.com/2014/10/09/sarah-kauss-swell-water-bottles/

Rockwood, K. (2017, March 28). *Patiences and faith built S'Well into a $100m million-dollar brand*. https://www.entrepreneur.com/article/290542

Romano, A. (2019). Fiji Water Girl would be a great meme if bottled water were something to celebrate. *Vox*. https://www.vox.com/culture/2019/1/7/18171384/fiji-water-girl-meme-bottled-water-bad-environment

S'Well. (2017) S'Well moves beyond the bottle with launch of two new products – S'Well traveler and S'Well tumbler. *S'well*. https://d39a0qhkyd7cmy.cloudfront.net/swell-blog/wp-content/uploads/2016/09/10165133/Swell-New-Product-Launch-Press-Release.pdf

S'well. (2018). Join us in supporting EAT (RED) in the fight against AIDS. *S'well*. https://www.swell.com/swell-supports-red-in-the-fight-against-aids-june-18/

S'well. (2018). Support breast cancer research this May. *S'well*. https://www.swell.com/swell-supports-breast-cancer-research-may-2018/

S'well. (2020). More ways to use less with S'well in 2020. *S'well*. https://www.swell.com/more-ways-to-use-less-with-swell-in-2020/

S'well. (2020). S'well Appoints Hugh Rovit as Chief Executive Officer. *Marketwatch*. https://www.marketwatch.com/press-release/swell-appoints-hugh-rovit-as-chief-executive-officer-2020-02-26?mod=mw_quote_news

S'well. (2020). S'well authenticity. *S'well*. https://www.swell.com/swell-authenticity/

SocialBlade. (2020). Social media comparison. *SocialBlade*. https://socialblade.com

SimilarWeb. (2020). Website traffic statistics and market intelligence. *SimilarWeb*. https://www.similarweb.com

Statista. (2020). *Social media marketing usage rate in the United States from 2013 to 2019,* https://www.statista.com/statistics/203513/usage-trands-of-social-media-platforms-in-marketing/

Transonic. (2013) S'Well bio. https://youtu.be/0fqx3GFGfig *Curalate*. Curalate optimizes digital commerce for discovery. https://www.curalate.com/about/.

Trusov, M., Bodapati, A. V. & Bucklin, R. E. (2010). Determining influential users in internet social networks. *Journal*

of Marketing Research, 47(4), 643-58. https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2

Van Laer, T. & de Ruyter, K. (2010). In stories we trust: How narrative apologies provide cover for competitive vulnerability after integrity- violating blog posts. *International Journal of Research in Marketing, 27*(2),164-174. https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2

Ward, J. & Ostrom, A. (2006). "Complaining to the masses: The role of protest framing in customer-created complaint web sites". *Journal of Consumer Research, 33*(2). https://librarysearch.royalholloway.ac.uk/primo-explore/search?vid=44ROY_VU2

Weisul, K. (2017). How an accountant turned a water bottle company into a $100 million fashion brand. *Inc*. https://www.inc.com/magazine/201706/kimberly-weisul/swell-water-bottle-design-awards-2017.html.

Williamson, D. A. (2010). How much will you spend on social media – marketing next year?. *AdAge*. https://adage.com/article/digitalnext/social-media-marketing-spend-year/147544.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : 2591-801X

Content Available at : http://journals.sfu.ca/jalt/index.php/jalt/index

How Sarah Kauss turned her drinking bottle start-up S'well into a $100m enterprise: Teaching note

Irene Paniagua Martin[A] A *Management with Marketing student, Royal Holloway University of London, Singapore*

Justin O'Brien[B] B *Professor, Executive Director of Postgraduate Programmes, Surrey Business School, University of Surrey*

DOI: https://doi.org/10.37074/jalt.2020.3.2.4

Synopsis

This armchair teaching case, developed from a student assignment (lead author), tracks Sarah Kauss's organically funded start-up S'well, from the ideation pain point (a hot hike with her mother) through being unethically knocked off by Chinese counterfeiters, to delisting because the growth success story was attracting too much attention. This entrepreneurial/digital marketing/strategy case is developed by sketching the founder's growth story from low cost marketing, requiring door-to-door sales, to the first pivot, the invitation from Oprah Winfrey to feature in her magazine. The prospect of guaranteed national US exposure created the first trigger point, requiring scaled up production beyond the storage capacity of Kauss's New York apartment. Other celebrities and enthusiastic customers co-created organic exposure on social media through shared image posts, drawn to S'well's cool design and eco-credentials. Kauss astutely sought to position her triple-steel walled, double insulated bottle as a premium fashion accessory, partnering with up-market retailers. By imbibing her brand with more than functional attributes (the longest time performance keeping hot's hot and cold's cold), embracing a mission to do good by reducing plastic waste, and portraying a pro-social agenda through collaborations with environmental and health related charitable causes, she created a powerful, mission-led story that resonated with modern consumers. The second pivot came when invited to partner with Starbucks (who had spotted the bottles in a magazine), leading to a series of successful, website crashing, joint promotions. Carefully, over time, Kauss had successfully built a trusted, premium brand that she dreamed could achieve unicorn status, with a $1bn valuation. Despite launching a range of product lines for beverages (from kids packed lunches to picnic wine) and food on the go, and enhancing the eCommerce site, by 2020, it was clear that because of changes to social media algorithms, organic (unpaid) community promotion was losing traction. Was it time to consider a third pivot and adopt more sophisticated paid digital marketing concepts? The case questions encourage readers to identify: the market gap opportunity, S'well's USPs (unique selling points) and how Kauss was able to command a substantial premium for her portable, thermal storage solutions. Readers are also invited to synthesise the deployed organic marketing strategy before assessing the conservative organic business growth strategy favoured by the Harvard Business School educated, ex-accountant founder. Finally, the case invites consideration of the unresolved marketing challenges faced by S'well in 2020.

Target audience

This teaching case study has been designed to be used in marketing, digital marketing, entrepreneurial marketing, and strategic marketing classes at an intermediary level for undergraduates and as an introductory intervention on postgraduate programmes. It could be integrated into an entrepreneurship course to enhance curriculum consideration of female entrepreneurs, organic growth strategies, and low-cost marketing implementation, particularly with the addition/substitution of the supplementary questions.

Teaching strategy

This case is designed to work in a typical 50-minute small group seminar class. Adjust small group discussion time and plenary interactions upwards to fit longer classes.

To build trust and foster an appropriate interactive environment, start the class exercises by encouraging students to introduce themselves using a 30 or 60 second elevator pitch. Make sure they know their partner's first name from the get-go.

[7 mins] Warm up: As a warm up exercise before kicking off, invite students in pairs to discuss their hydration strategies. Encourage students to scan the environment by looking at the variety of solutions likely to be evident on table tops and peeking out the top of bags.

Commence the class proper by playing this 30 second short ad: https://youtu.be/DmJvB0Nz0vw and follow on with this 'movement' promotion for New York: https://youtu.be/BwYHkBrEKxg

Build up to question 1 discussion by asking the class "Who likes to drink warm water on a hot day?", "Who feels guilty when throwing away a single use plastic container?" and "What does the word swell mean to you – what feelings or ideas does it evoke?" [According to the dictionary definition, the term swell has a multitude of meanings; (1) bulging or rounded, like the bottle shape design, (2) distended with powerful or expansive emotion, (3) growth in size, number, and/or intensity, (4) high social position/fashionable stylish, socially prominent, and finally (5) as in "that's swell" – North American terminology for excellent or to highlight enthusiasm (Merriam-Webster dictonary). With a little creativity, nearly all of the above might apply to S'well too.]

[6 mins] Question 1: Invite students in the same pairs to discuss the identified gap (easy) – but encourage them to first challenge how they would frame the market. [Use Steve Jobs iPad gouging beauty and function – with a full day's battery power breakthrough]. Validate the correct gap answer (straight forward to encourage a lean in orientation), but focus the plenary conversation time on the framing question element.

[6 mins] Question 2: Explain what a USP (unique selling point) is, invite the class to offer up their own examples. If necessary use examples of students' writing instruments e.g. the heart beating space pen that writes upside down, the Bic Crystal's see-through casing that ensures you always know when your ink reservoir is about to run out, or Biro's roller ball that ensures a smooth and reliable writing experience – no illegible signatures. Remind the class that consumers buy benefits (solutions to problems they care about, or pain points) rather than features.

[8 mins] Question 3: Frame this question on the evolution of S'well's marketing with the idea of cash is king and how often start-ups have to cut their cloth to match the enterprise's life blood, cash flow. Remind them that many new businesses have to initially rely heavily on direct sales and word-of-mouth referrals for lack of ample marketing spend. Firms go bust because of cash flow problems, not poor profitability.

[5 mins] Stretch break: [remember the 20-minute attention span] Make groups of four by inviting pairs to join together. Each person should introduce their partner [at least their first name and something interesting about themselves] in 30 seconds to the 'new' members. This provides a short 3-minute break where students can converse informally.

[8 mins] Question 4: Explain that organic in this context means growth relying on internal financing resources, re-investing profits back in the business to invest in for example; larger order sizes, new equipment, enhanced eCommerce platforms, more staff, increased storage space, and more administrative support. Encourage students to consider the question using multiple stakeholder perspectives, not just the founder's lens which is powerful in the case narrative.

[8 mins] Question 5: Ahead of the discussion, play this video: https://youtu.be/k4PhS_Hoowc. Explain this is where the case pivots from analysis into more diagnostic consultancy recommendation making. Highlight that the superficial answer here is quite straight forward, but a deep dive into the fundamentals of the business (encouraged perhaps by questions 1-4) should mean students are better able to not only make recommendations, but justify why these are robust.

[5 mins] Close: Ask the class "What did you learn?" Emphasise that this case requires analysis in real world practice [and explicitly make the employability connection of these skills].

As a reflective ending piece - cum provocation - encourage students to consider how a boss or client might ask a specific question (e.g. question 5) that actually requires significant background research and analysis [questions 1-4, but also refer to follow-on questions below] merely in preparation to be able to fully consider what might seem on first reading as a simple set task. Individuals who have 'gone the extra mile', who can demonstrate investigation into a range of rabbit holes, and have prepared answers to anticipated questions are those likely to project high levels of competence and catch their boss's attention as a star performer, or not.

Potential answers to questions

1. Describe the gap in the market that caused Sarah Kauss to risk all her savings and launch S'well?

An upmarket and stylish water bottle for working professionals who did not want to purchase single use plastic. Kauss framed the product solution that would be aesthetically in keeping with less price sensitive, middle- and upper-income consumers style, as a quality accessory that would sit comfortably on a business lunch table, nestled next to an expensive designer handbag, iPhone and expensive Italian suit.

2. What were S'well's unique selling points? How does the brand command a premium?

USPs: Double insulation stainless steel shells keep cold liquids cold for 24 hours and hot beverages warm for 12 hours. Colourful, ergonomic designs that 'look good, and do good' (helping 'save the world' from plastic bottle waste) augmenting physical attributes with psychographic benefits of peer kudos and self-esteem enhancement.

Brand premium: Premium positioning – using a conscious marketing mix: price (US$35/bottle), distribution (e.g. Neiman Marcus, Starbucks), celebrity endorsement free promotion, and reframing the product as a giftable fashion accessory (evidenced by 5.5 units owned per customer) – combined with celebrity endorsements and not-for-profit focused partnerships (e.g. Earth Day, TED). Functional attributes (easy to emulate) augmented by powerful, emotive intangible and positive carefully designed brand associations (that are much harder to copy).

3. Explain how S'well's low spend marketing evolved.

Initially Kauss relied on her friends and family to refer sales. She also then undertook door-to-door sales in leafy neighbourhoods. Once her PR plugging started to pay off with magazine (key inflection: O from Oprah listing) and wider media coverage, online sales were via the company website and Amazon. Then, partnerships with premium retailers (most notably Starbucks) and on brand collaborations with environmental charities. Social media fueled eWoM using UGC, particularly celebrities on Instagram causing dramatic sales spikes that crashed the website on several occasions.

4. Evaluate the strengths and weaknesses of S'well's organic-only business growth strategy?

+ Kauss retained 100% ownership – enabling her to cloak the firm in privacy following a negative experience with counterfeiters.

+ Rare, female founding entrepreneur brand personality and authentic values (mission to reduce plastic waste) sewn into the brand, with a body of evidence of successful partnerships with a range of eco-charities.

+ Carefully considered collaborative joint marketing efforts, seem to enhance the S'well brand

- Relatively slow new product development (no dishwasher proof bottle) and product line diversification. Post-Fordian colour range impetus came about following Oprah's interest.

- Under investment in eCommerce and paid digital marketing capability development

- Slow geographic penetration, and reliance on third party distributors – allowed counterfeiters to negatively impact sales channels, particularly via Amazon.

5. What unresolved marketing challenges does Kauss face, and how would you recommend she address them?

The appointment (see Appendix A timeline) of a CMO perhaps indicates the realisation that S'well's paid digital marketing capability was underdeveloped. The loss of traction from organic Instagram UGC playing into owner Facebook's game plan – to shake more advertising income from brands that benefit from its social media platforms. Will the firm be able to navigate through the mid-size growing stage to establish itself as a large, powerful and enduring brand, able to invest sufficiently to protect its brand and nurture it over time?

With a wider product portfolio, S'well has just started to produce traditional paid advertisements. Will consumers embrace a more aggressive commercial company, when historically it has been more co-created by its customers own shared passion for elegant design and clever cause related collaborations, stimulated via voluntary user generated content? Perhaps S'well will use an authentic consumer focussed or co-created approach to developing its campaigns to attempt to retain its humble and authentic brand credentials.

The ongoing threat from illegal counterfeiters and lower cost, me-too competitors seeking to emulate S'well's sales strategies is significant. This will likely require an enduring focus on customer insights to understand the fashion (colour) cycle and to continue to tie in with contemporary, on trend partners – both distributors and not-for-profits.

Additional resources

Sarah Kauss reflecting on her EY background https://youtu.be/HzBlQcngG5g

How S'well leveraged Starbucks to become a status symbol https://youtu.be/UOsGWxUr1vI

Introducing S'well Eats https://youtu.be/Dy0FKtaZrFM [Product line diversification]

S'well's Sarah Kauss gives advice on starting a million-dollar business https://youtu.be/B6WyYgG_6II [Short, motivational]

Additional/alternative follow on questions

Consider using the following questions to give the case a stronger entrepreneurship orientation. Some will require students to research beyond the case content.

- What associations does the name S'well invoke? Given the evolution of the brand over time, what meaning has been embodied through Sarah Kauss's use of the term swell?
- Describe the entrepreneur challenges often faced by female founders.
- What are the features of the S'well water bottle? How can these be translated into marketable benefits? [include consideration of intangible psychological factors in addition to functional attributes]
- Evaluate the strengths and weaknesses of alternative sources of funding available to Sarah Kauss.
- Countering the customer value proposition with a buy or fill calculation. For a low, medium and high frequency bottled water consumer (make clear your assumptions/research insight) calculated how long would it would take to recover the initial US$35 upfront investment in a S'well bottle? Assume that a one-way plastic bottle of water costs US$2 and tap water refills are free.
- S'well ceased reporting its financials after 2016. Can you forecast sales and cost data to derive an estimated profit for the following five years?
- What ethical considerations does the case bring forward?

- The case outlines a number of strategies used by S'well to counter the challenge from competitors and unethical counterfeiters. Can you identify three of these identified in the case and propose another potential approach that is not mentioned?
- How important have collaborations (particularly with charitable entities) been in the development of the S'well brand?

Appendix A: Sarah Kauss / S'Well timeline

1993 Colorado University Boulder: Freshman Kauss pledges to not use foam cups or plastic bottles

1997 Joins EY as a junior accountant (CPA)

2001 MBA from Harvard Business School

2009 Arizona Aha! Ideation moment – hiking with mother
2010 Sarah Kauss founded S'well with only US$30,000 (retained 100% ownership)

July 2011 featured in the O, The Oprah Magazine list http://www.oprah.com/gift/swell-stainless-bottle?editors_pick_id=31693 triggers the development of 5 more colour options

2013 Included in TED Talk delegate gift bags

2013 Sell out distribution via 120 Starbucks stores (first partnership)

2014 $10m sales milestone

2016 S'ip bottle launched in Target (large, US mass market) stores

2016 $100m sales milestone

2017 Headquarters move to accommodate growth

2017 Limited edition bottle to celebrate Earth Day

2017 Lilly Pulitzer/Starbucks partnership product sold out in a day, crashing Starbucks website

2017 Diversification beyond bottles – launch of S'well Traveler and Tumbler

2018 100 Million Plastic Bottle Earth Day pledge

2018 Launch of sport cap with drink thru spout

2019 Launches stainless steel straw set

2019 Limited edition Earth Day collection (inspired by NY youth)

2019 Vacuum-insulated food containers launched

2019 FMCG brand marketer, Josh Dean, appointed as CMO (Chief Marketing Officer)

2020 Named official reusable bottle of London Fashion Week

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Ashwin, P., Boud, D., Calkins, S., Coate, K., Hallett, F., Luckett, K., MacLean, L., Martinsen, K., McArthur, J., McKune, V., McClean, M., & Tooher, M. (2020). Reflective teaching in higher education. London: Bloomsbury Academic, 2nd ed.

John F. Hulpke[A]

[A] *Lecturer, University College Dublin, Singapore*

DOI: https://doi.org/10.37074/jalt.2020.3.2.5

Stop. Look. Listen. OK, now you are ready to practice *Reflective Teaching in Higher Education*. No need to read the book with that title. Just do it. That Stop Look Listen is still seen at rural railroad crossings around the world. On the highway, that admonition can save lives. In higher education, it can help build lives. Although it may be of more value to follow that advice than to read the book, there are those who will also benefit by picking up this volume. Once you peruse the book you will see that it is not one coherent essay. Indeed, it has 13 authors contributing to 17 chapters. As with any anthology, different elements will appeal to different readers. Chapters 9, 10, and 11 basically ask us to stop, reflect on what we want students to learn and how we help them learn. The rest of the book gives insights on how to look at what is going on and guiding reflections. Each of the 17 chapters might stand alone in its own right. Yet, they do weave together, leaving us with a basic message. Yes, in higher education there are advantages to a spontaneous lively vibrant style, just do it. Yet, this book shows that there are also advantages to "reflect on our teaching and on our students learning in a deeper and more sustainable way" (11). Stop, look, listen.

Immediately on opening the book one is given cause to pause. Barely into the preface, seven pages before getting to page 1, I am already pleased, bothered, and a bit perplexed. Pleased that at last, I find a book with multiple authors where males do not dominate. Of the 13 names on the cover, most seem to be European, but pleasantly, of the 13 authors seven are female. I am so tired of our gender imbalanced world that this diversity brings a smile to my face. But I am a bit bothered, still in the preface, to confront wisdom, truths, that I question. For example, these pages introduce a list of ten underlying principles that guide the book. These do not look like principles I need to guide my educational efforts, but I will reserve detailed comments on the 10 principles until we reach chapter 4 where they are discussed and maybe justified in detail.

Getting past the preface and the introductory material things get worse, and better. Page xiii outlines how the 17 chapters are organised. For example, each chapter will contain a box connecting that content to "TLRP Principles." Whatever that is. Page xiii describes how TLRP will be related to content but gives no hint as to what the letters TLRP stand for. I am almost ready to give up on the book, saying RIP, but I was assigned to do a book report, so I trudge on. Page xiii lets me know that this book is supported by a web page, newly updated to help you differentiate LEP from LAP. That's a relief for those of us who have stayed awake at night worrying how to distinguish LEP from LAP. Now we know there is a web page to put us at ease.

Although much of this introductory "summary of the book" section is similarly bothersome, it does lay out the plan. And in a phrase that resonates with me mentions that this is all about the "art, craft, and science of teaching" (xv). With that high note, we move to the book itself.

Any 17-chapter book will contain a lot that will not fit in a book review, even a long book review. With that disclaimer in mind it seems appropriate to introduce some of the many ideas the book contains. Snippets or teasers might induce a person to pick up the book. There is a lot inside the book and even given my personal irritation with some of the academic jargon it will still be seen as valuable and informative to most readers.

Next time I read the book I might be tempted to skip chapter 1 on "Identities." Things get off to an academic sounding start, an approach which may appeal to many scholarly readers but not really to me. For example, page 4 states boldly "what is certain is that an understanding of matters of identity, our own identity and those of our students, enhances our sense of agency…" Great, I guess. And since this "is certain" perhaps I should reflect on my five decades of being "Prof. Hulpke." I have been taught many things, and learned many but fewer things. Maybe I was absent the day I was taught "sense of agency" or maybe I was not listening. But I am not in real estate nor do I sell insurance, thus I have no personal "sense of agency." I should relax not rebel but I do think fewer terms, less academic jargon, would better

suit some readers such as me.

In the very next paragraph, we are shown how agency and identity tie to "the TLRP Principles" without a hint as to what the important letters TLRP stand for. Perhaps the authors feared that some readers such as me might still have a fuzzy understanding and agency, thus page 5 explains: "Agency refers to the way in which an individual is able to engage in autonomous or self-defined action which is meaningful for them." Oh, now I see.

Just as I was about to surrender and trash this 450-plus page volume, RIP, relief appears, in the first of the book's many case studies. Case 1.1, Reggie's Privilege, hit me hard in a positive way. Now I see how this book can reach even a jaded old professor like me. Cases and reflective activities spread throughout the entire book make it all worthwhile. Typical academics will possibly benefit from the pedagogical sounding chapters. To me, the cases, the things in boxes, make the book. The very first such box is truly a gem and in three paragraphs, changes my perspective on the book. In Case 1.1 we hear Professor Reggie's story. "I feel so lucky and people who work at institutions like ours are lucky, lucky. Yes I complain but I don't like it when I hear people moaning and complaining… I want to say 'then go find another job.' Where basically can you do what you love to do, come and go as you please, be exposed to young people all the time, have technology just provided for you! Find another job like that!" (6). Reggie's refreshing perspectives speak to me. True, things could be better in the academy, and we should work on it (Cadez et al., 2017; Rudolph, 2018). But sometimes academics become jaundiced and even bitter to the point where their attitudes must negatively impact their teaching (Berg & Seeber, 2016). Right on Reggie!

The rest of chapter 1 has much other material in boxes, reflective activities, research briefings, cases, that help me see where the book is heading: If successful, this book will help us become more reflective as educators.

Chapter 2 for example has many good points about learning. One topic spoke directly to me. Page 24 notes "considerable debate about the nature of learning: Constructivist approaches… see the importance of having students 'actively engage with course content rather than rather than seeing students as passive receivers of information.'" This fits with what University of Michigan professor Susan Jackson once said in a teaching seminar: the old idea is 'I taught therefore you learned.' The new idea is 'you learned therefore I taught." Page 29 reminds us that education "is not simply [about] discrete knowledge… which can be easily be made explicit" but partly tacit. Just presenting content is not enough.

While there is much of value in chapter 2, again the reader will receive several mouthfuls of jargon. I happen to like "threshold concept," a new term to me. As page 32 says, once a person has "stepped through a threshold they are less likely to return to a prior level of understanding. I like the idea contained in that jargon, but am less impressed with others in chapter 2 and throughout the book. One sentence on page 33 exemplifies my discontent: "An emphasis on *situated discourse practice* does however bring to the fore elements which are less central in the literature on *legitimate peripheral participation in communities of practice*." Three examples of academic jargon, all here in one sentence. Serious academics reading this book will no doubt take this in stride. My discontent probably stems from my blue-collar perspective on life.

Chapter 3, named reflection, is perhaps central to this book on reflective teaching. Lots contained here, but my key takeaway is on page 53: Reflection starts from "a dilemma which disorients us; it is something we feel is just not right. It is often something we sense rather than rationally come to a view about…" For more on "feelings and the role emotions have in inhibiting or enhancing learning" read, and reflect upon, chapter 3.

This chapter also provides, in my opinion, a brilliant observation on a current hot topic, "evidence-based management" (Rynes et al., 2014). I have elsewhere joined with those who feel uncomfortable with the overemphasis on facts and data in evidence-based management (Hulpke & Fronmueller, 2020). Chapter 3 helps show "why the term 'evidence-informed' is preferred over 'evidence-based' (61). At last I find a new term, jargon, that I like: evidence-informed. The chapter cites Schon who saw potential advantages of evidence-based analysis in "technical professional work, such as laboratory science" but less in "human-oriented professional work, such as education." Schon called the former "high hard ground" which might be supported by quantitative and objective evidence. On the other hand, "the swampy lowlands of the human professions can become" 'confusing messes' of intuitive action. Whilst these 'messes' are key to our practices, they are not easily amenable to technical analysis… [rather are often] spontaneous, tacit, and intangible…" (63). Here the book puts into words that which I sense, feel, believe.

My happiness with the book based on chapter 3 comes to a halt in chapter 4, "Principles." These Principles will speak to some readers but hit me as largely academic jargon. In support of this chapter I will note that at last, readers will learn what the letters "TLRP" stand for. Mentioned several times previously without definition, now we see that "The UK's Teaching and Learning Research Practices Program (2000-2012) initially conceptualised these ten principles" (72). And, readers are admonished to take note: "The TLRP was the UK's largest ever coordinated program of educational research" (72).

Further, as the writing team says these Principles underlay that which follows, perhaps a somewhat detailed, or nit-picky, restatement of the ten principles is reasonable. The very first principle does not make sense to me. Education "demands consistent policy frameworks." Not so. I have taught, sometimes poorly and sometimes well, and have rarely if ever been helped by a consistent policy framework nor have been bothered/impeded/disadvantaged by a lack of such consistent policy frameworks. I am not sure I have ever met one yet but this has not stopped me. Still in principle number 1 of the ten, we find these words on a slightly different topic: Policy frameworks should have "support for learning for diverse students as their main focus." This could perhaps be called principle 1A, and I could

agree here. Everybody should support learning for diverse students.

Principle 2 is fairly long, but I think it says teachers matter. Good discovery. The third principle of teaching and learning recognises the significance of informal learning to develop specific expertise. Specific expertise is at times a reasonable goal. At any time informal learning is useful, valuable. The fourth principle reminds us in case we had forgotten, teaching and learning are good things: Teaching and learning fosters both individual and social processes. As individuals learn, the group composite [aggregated] body of knowledge is enlarged.

Principle number 5 may at first seem to be based on circular observation but is true even if tautological: Effective teaching and learning promotes the active engagement of the student as learner. Hopefully it does not shock one to learn that if teaching and learning are effective students learn. This section also has this memorable quote: "student engagement has become a buzzword" (81). This to me is one of the less irritating of the many buzzwords in the book.

The sixth principle revisits what my students ask me after oh so many lectures: Teacher, will this be on the test? Principle 7 postulates that effective teaching and learning require that learning be systematically developed. Perhaps because I believe passion trumps organisation, I have never been accused of requiring learning to be systematically developed, or for that matter, even systematic. I remain unconvinced but may revisit this if and when I ever finish the book.

Number 8 holds that effective teaching and learning recognises the importance of prior or concurrent experience and learning. Perhaps this is a softer restatement of what is lesson number 1 in the School of Hard Knocks: Experience is the best teacher. Principle number 9 suggests that effective teaching and learning engages with expertise and valued forms of knowledge in disciplines and subjects. I am not sure what this means but perhaps it means that if we wish to teach there should be something to teach, such as geography or accounting or neurology etc. This may or may not apply to music or art or creativity as it is not unanimously agreed that there is any there, there.

Saving the best for last, principle 10 points out that education is important for *life*, *preparing them for "an unknown future*." This turned out to be a timely warning, as I read this book in the year 2020. We help prepare for careers, jobs, yes, but there should be more to it than that.

This long discussion of the ten "TLRP" principles leads to the rest of the book, perhaps a bit less academic sounding. For example, chapter 5 reminds us that teaching and learning varies depending on the situation and the context. Following very thoughtful attacks on the "marketisation" of higher education and on the elitist "northern hemisphere" perspectives, the text focuses on how learning differs from place to place, discipline to discipline, institution to institution. A third edition of this book (this is the second edition) will surely look more closely at how learning online differs and does not differ from face-to-face. The world, and education, changed dramatically in the year 2020. The world, and education, will never be the same.

The sixth chapter on educator-learner relationships has good information well-grounded in the literature. My favourite part was in what seems like an aside, a bit off topic, but very perceptive: "it is … difficult to de-programme students who think learning is knowing decontextualised facts" (127). Chapter 7 reviews what good teachers know about the importance of engagement. Chapter 8, Spaces, reminds us that not all learning takes place in classrooms or for that matter inside educational institutions. Internships, service learning, flipped classrooms and home learning are introduced, no doubt to be revised and expanded in a third edition.

Part three of this book reminds me of what one may find in a Principles of Education textbook. Curriculum, Planning, Teaching, and Assessment each have a chapter. Each has things worth knowing, learning. For example, I did not know that "the Latin origins of the word 'curriculum' are variously defined as 'racecourse' or 'to run/proceed.' This conveys an image of a curriculum as a planned pathway designed and controlled by academics on which students embark towards a clear finish line" (175). This book reminds us of what reflective academics know: There is no finish line.

The Planning section, chapter 10, suggests that "only a handful of students have the staying power to benefit from MOOCs" [Massive Open Online Courses] (205). This will be rethought in any third edition. These ideas are also addressed in chapter 11 on teaching, which has a nice introduction to online teaching and learning. The massive amount of research on learning in the age of Covid-19 was not yet available when this was written but the book does introduce many points worth thinking about.

One good point hidden within the chapter called Communication might apply to many who aspire to be successful teachers. "Sonia read the set text over and over so that she felt completely familiar with it. She could practically recite sections off by heart." But somehow, it didn't fly. "So, she relaxed a bit. By the end of the semester she has found that she could save time and prepare less and the seminars would run pretty much the same…" (261). Sonia learned what I once was told by my boss in the U.S Air Force, Major Glenn Rice: "You know John, sometimes if you don't try so hard, it gets easier." Good point. Thanks Sonia, thanks Glenn.

Also worth remembering from this part of the book: However much we talk about interactive learning, lectures remain. Further, "token moments of 'interaction' within a lecture just for the sake of it" are not always a panacea (263). Most readers will find more than they want to know about Assessment from chapter 13. I wonder if my educational life would have felt even more rewarding if I had been hired by Evergreen State College south of Seattle, where students received no grades. I will never know, they did not hire me.

Chapter 14 on Quality and chapter 15 on Inclusion, taken together, give a lot to reflect upon relating to one of my personal key areas of interest: Inequality. We as educators must always take care not to use taxpayer dollars extracted

from the middle class or lower to help those already advantaged get richer. One tip hidden in chapter 15 will help me personally. Elaine Keane of National University of Ireland Galway uses Survey Monkey to gather information about her class of 220+ students. I can use Survey Monkey to replace my "Hello+Bucket List" handout used the first day of my face-to-face classes in my next class, which will be fully online. This is just one of many useful examples sprinkled throughout the book

Chapters 16 and 17 ask readers to reflect in order to progress. A page about "higher education and society" reminds me: Educators potentially play an important role in making the world better. One almost expects a chapter 18, Summary and Conclusions. Not found. Perhaps this is as it should be. Although a scholarly but still readable text, this is a bit too complex to summarise. Not an easy book, at least for me, but lots here to digest. Then, stop, look, listen. Reflection required.

References

Berg, M. & Seeber, B. K. (2016). *The slow professor – challenging the culture of speed in the academy*. Toronto: University of Toronto Press.

Cadez, S., Dimovski, V., & Groff, M. Z. (2017). Research, teaching and performance evaluation in academia: The salience of quality. *Studies in Higher Education 42*(8), 1455-1473

Hulpke, J. F., & Fronmueller, M. P. (2020). Review of evidence-based management: How to make better organizational decisions by Eric Barends and Denise Rousseau. *Journal of Business Ethics, 164*, 417–419.

Rudolph, J. (2018). Book review of Parker, M. (2018). Shut down the business school. What's wrong with management education. London, England: Pluto Press. *Journal of Applied Learning and Teaching, 1*(2), 75-77.

Rynes, S. L., Rousseau, D. M., & Barends. E. (2014). From the guest editors: Change the world: Teach evidence-based practice!" *Academy of Management Learning and Education 13*(3), 305–321.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Zhong, Z., Coates, H., & Shi, J. H. (Eds., 2020). Innovations in Asian Higher Education. New York, Routledge, First edition.

Cubie Lau[A]

A *Faculty member, University College Dublin (Ireland), Singapore*

DOI: https://doi.org/10.37074/jalt.2020.3.2.13

This book focuses on education innovation, and is published by The Asian Universities Alliance. It is the second in the Asian Higher Education Outlook (AHEO) book series. It covers six important themes: teaching innovations, doctoral education, online and mobile education, education for sustainable development, social/community engagement, and education futures. Each chapter presents lively and practical case studies on education innovation written by prominent scholars in their expertise/domain. A total of 24 authors and many contributors, advisers, informants and administrators spanning 15 universities of the Asian Universities Alliance (AUA) contributed to this book. The alliance is a collaboration of 15 universities in Asia and the member universities of the Alliance.

More than half of the 24 authors have doctoral degrees and all of them have at least one masters degree. They have a wide range of research interests in higher education and development, which include organisational change, political economy of institutions, corporate social responsibility, online learning and assessment, comparative education, expatriate academics and international doctoral studies, and community-oriented medical education.

As an educator, my main point here is to present the significant developments and achievements of some leading Asian universities. Drawing from experiences of elite universities, we can better understand the uncertainties in the higher education sector, what resources/areas we should develop further, how to leverage talented faculty and students, and to spur ongoing innovations.

This book aims to provide an avenue for leading universities to tell their compelling stories, and showcase their innovative collaboration between academia, government and industry. It also serves as a platform to get member institutions to openly address regional and global challenges related to higher education. In particular, what missions should universities undertake in new age? What skills should university students acquire? What challenges do universities face?

Given its broad relevance, the primary audience is students of higher education in Asia, Europe and the Americas, learners such as policymakers and advisors, people working in roles that require good understanding of higher education in Asia. The tertiary audiences are higher education practitioners and leaders in universities around the world with an interest in Asian higher education. They include academics and higher education leaders, such as deputy vice-chancellors academic, deans, associate deans and heads of school.

This book has eight chapters. Chapters 2-7 discuss six major themes in education innovation in Asian Higher Education. It starts with an overview of five teaching related matters, such as student success, faculty and teaching characteristics, the nature of education programs, teaching through social engagement, and education finances and infrastructure. It then examines the drivers of innovation in doctoral program design, the growing trend of digitalised education, new models of university social engagement, and role of universities in promoting sustainability, and concludes with key opportunities and challenges faced by higher education. Different approaches are deployed, such as desktop study of research literature, document analysis, surveys, observations, interviews, focus groups, expert meetings and conferences.

Chapter 2 focuses on academic excellence by five authors. Based on recent comparable data from 15 AUA member universities and several illustrative case studies, three key findings are formed. Data are collected from multiple sources: university questionnaires, publications, and websites. Findings suggest that AUA member universities have made significant contributions to cultivating high quality graduates, growing the number of postgraduate students and academics by increased investment and training, and enriching student experiences through broad scale reforms in curriculum design, digital infrastructures, multicultural campus and study abroad programs.

Chapter 3 traces the development of next-generation doctorates. Four case studies of doctoral practice from Kazakhstan, Myanmar, Korea and United Arab Emirates are presented. These cases show new forms of doctoral

education which are interdisciplinary, cross-national, and industry-oriented. It concludes with a recommendation that the new doctorate's educational design should focus on both structure and function. The design architecture is developed and validated through theoretical analysis and empirical work. The structure includes three phases, "success", "experiences", and "preparations" (33). The functional side refers to activities undertaken by students and universities. For example, to promote academic and professional successes, students should engage in jobs and build careers, while universities guide, support and engage through alumni activities.

Chapter 4 reviews the expansion of online and mobile learning, and explores its implications on higher education teaching and learning. Insights were drawn from three member universities in Hong Kong Special Administrative Region, Republic of China, and Thailand. They are pioneers of Massive Open Online Courses (MOOCs) in the Asian region. One emerging key challenge common to virtual online platforms is academics' lack of interest and experience. In order to further advance digital learning, it is necessary for universities to invest in extended training and development of digital competence for teachers and learners.

Chapter 5 illustrates the emerging roles of universities and the new models of university social engagement in Asia. Other than the traditional mission that focuses on teaching and research, there is a call for the inclusion of the generation of human capital as a second mission. Four in-depth case studies of three theoretical models, mission-driven, needs-driven, and stakeholder perspectives, are presented. The study argues that the success of any engagement models depends on several key elements, such as strong academic leadership and support, integration of social needs into the academic programmes and design, setting up a strategic centre to form coordination and knowledge connectivity with different stakeholders, recognising and rewarding faculty.

Chapter 6 describes a new role of universities in promoting sustainable development goals. A deep-dive case study from the University of Tokyo and illustrative case studies of four AUA members are presented. Findings suggest that the development of stages depends on national and institutional characteristics. Universities in developing countries focus more on green campus operations. Conversely, universities in developed countries have a more comprehensive and wider focus on realisation of sustainable development goals. Findings also reveal that there is limited collaboration among AUA member universities. It concludes with a proposed framework and a roadmap that AUA member universities could deploy to promote collaborative sustainable development.

Chapter 7 presents future opportunities and uncertainties faced by higher education institutions in Asia. The scenarios are generated from a series of workshops organised by two AUA member universities and their faculty and staff and an Alliance-wide survey. Changes are necessary at three levels; micro-institutional, medium-societal and macro-international. Next, case studies of university transformations from United Arab Emirates, Republic of China and Singapore are used to illustrate the responsiveness of some Asian universities to major environmental disruptions.

This is the second publication within a research book series in the Asian Higher Education Outlook. This book focuses on higher education innovation. It covers six timely and important topics that are vital for the sustainable development of higher educational institutions. We know a lot about universities and education learning and development in other regions, such as in the United States and Europe. Asia needs to be studied as well given the sheer growth of Asian universities and their achievements, "yet much of this story remains untold, and unknown" (88).

Several strengths of this book tie to its organisation, content and illustrations. Each chapter has a main theme related to education innovation. It starts with an overview of the topic, followed by exemplary cases, conclusions and recommendations. The length of each chapter is optimal. I most like the case studies included in this book. Cases are drawn from 15 AUA member universities. They are lively, provide insightful ideas and good practices. They also represent a diverse geographic coverage; and one can really see the stages of education development differ between developed and developing countries. One minor point is that there are quite a few repetitions between Chapter 1 and Chapter 8.

All in all, this is a very easy-to-read book that is not filled with complex theories. Instead, it has interesting and practical cases. It can also be a leisure time reading for anyone who wants to keep abreast of innovation in the education sector. I would also recommend this book to parents who have teenagers who are future and current students of higher education.

One afterthought: given the massive changes across the world brought by Covid-19, a second edition of this book might be welcome. Certanly, every university has changed since 2019. Hopefuly, when stories of innovation to meet the new normal after Covid-19 are written, Asian universities will not be overlooked.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Sutton, M. J. and Allen, K. (2019). Emotify! The power of the human element in game-based learning, serious games and experiential education. EI Games LLC.

Bina Rai[A]

[A] *Senior Lecturer, Science and Math Cluster, Singapore University of Technology and Design (SUTD), Singapore*

DOI: https://doi.org/10.37074/jalt.2020.3.2.18

I was evaluating textbooks to recommend to my students for a new game-based learning (GBL) module when I stumbled upon this book with a title that captured my attention. It was written by Michael Sutton, a GBL Innovator, Architect and Edupreneur who has been applying serious games in his courses for decades, long before it gained traction. He is referred to as "The Professor" in the book. *Emotify!* was co-written by Kevin Allen, who is an expert in business development and has led companies to achieve their goals. He is a highly skilled growth professional and well-versed to teach companies and individuals winning strategies. He is referred to as the "Ad Man" in the book. Together, the duo provide a complementary, though not always agreeable, perspective on GBL. Their friendly banter at the end of every chapter can be rather compelling!

The book starts with mention of a pedagogy that resonates well with me, "Too much instruction and too little learning." It is indeed a phenomenon that is increasingly transforming the way we teach or rather facilitate learning in a classroom, especially in higher education. The authors then proceed to introduce GBL as a new method of teaching instead of lectures and share their belief that an effective learning game experience is highly dependent on the Emotional Intelligent Engagement (EIE) factor. Here, game creators understand the emotional and motivational state of their audience and create their material to connect to them. This book is a timely reminder that no matter how sophisticated a piece of technology is, empathy, connection, and the human spirit must still be present for it to function meaningfully. Adopting the EIE in your GBL experience has the potential to ensure engagement and sustainability.

This book has an exhaustive collection of stories and real-world examples. It teaches you how to effectively decide on which type of game-based approach to use, where to search for it and how to implement it successfully. The chapters are designed to equip you with sufficient knowledge on how to identify, research, sell, deploy, and evaluate GBL within your workplace or classroom. This book is intended for disruptive educators and builders of new learning environments well-suited for the current digital native generation of students. It is also directed at developing an entrepreneurial mindset among all students, players, learners, faculty, teachers, instructors, and staff. It is a synergy of an academic and business foundation in the five Ws and one H: who, what, why, where, when, and how much of GBL. I found the checklist for GBL excellence a particularly handy reminder to keep with you and concur with its components based on my personal teaching experiences (Chapter 5, page 104).

I introduced *Emotify!* to my students enrolled for a Term 8 elective called, "Instructional Design of Serious Games for Healthcare" at the Singapore University of Technology and Design (SUTD). As part of their weekly homework, they were instructed to read chapters 7 and 8 and answer a set of questions. Chapter 7 (page 133) covers crafting your show: convincing your sponsor. The chapter states that "All the research, all the testing, and all the effort you put into developing and preparing the right GBL experience for your organisation will only become a reality if the steps are taken to fashion a presentation that will capture the heart of your audience and provide a concrete argument as to why, unequivocally, your audience should support your endeavor." The students were asked to answer the following questions.

1. Describe in your own words the three important characteristics of a sponsor.
2. Emotional motivation makes a comeback in this chapter! Explain how emotional motivation is connected to your "business story".
3. Just like every business needs a business strategy and every conflict needs a battle plan, your selling effort of the game-based learning initiative needs a "Pursuit Strategy" (pages 137-139). Using any serious game covered in this course, come up with an example of a Pursuit Strategy and the associated Advocate's Approach based on the sample shared on page 150.

4. On page 147, the author introduces the LEARN method that might help you deal with objections and more importantly prepare for it before it actually happens.

- How do you feel about this method?
- Do you agree or disagree with its five components?
- Is this an approach that you are already using or would consider to adopt in the future? You are tasked to add an additional component to LEARN. Suggest a letter that you would add and why?

Chapter 8 (page 152) was about tracking and evaluating. The chapter states that "Learning is the primary goal of serious games. Assessment and evaluation have emerged during the last two decades and critical success factors determining what learning is taking place, how and why." They were asked to answer the following questions.

1. Why do you think the learning outcomes of serious games need to be evaluated?

2. On page 154, Ifenthaler, Eseryel and Ge proposed three types of assessment categories to assess learning in serious games and simulations. Using a table with three columns (summative, formative, and post-game playing), provide at least three pros and/or cons associated with the respective modes of assessment.

3. If you only had the resources to pick three out of the five assessment tools (highlighted on page 156), to implement for a hypothetical serious game that you will be developing, which would it be and why? Cite the information from pages 156-162 in your answer.

23 students completed the survey about their perception of the book. The survey revealed that 17.4% and 78.3% of them strongly agreed and agreed respectively that the chapters have improved their knowledge of the subject matter. It was revealed that 26.1% and 56.5% strongly agreed and agreed respectively that the authors' method of developing the information in the chapters was effective. The majority of the students (69.7%) would recommend the chapters to others who work in GBL. There were plenty of positive comments such as: "Useful tips"; "the things learnt from these chapters go beyond this module; it is really helpful at a personal level"; "interesting as I have never outlined the steps like this"; and "the way of writing is simple and easy to read." There was some student feedback that the information felt like common sense and it was subjective in the way that it was presented. The direct application of the framework can be clearer with more examples provided.

In summary, the book provides a refreshing point of view of the role that emotional intelligence plays in the design and development of a GBL solution. What I found remarkably interesting was the perspective demonstrated explicitly by the two authors with differing expertise in business and game design, respectively. The 'Professor' gives us implementation frameworks: models, approaches, planning and evaluation tools. The 'Ad-Man' provides marketing insights and useful tips of how to sell it to our people and our sponsors. It is precisely this unique amalgamation of two different fields that resulted in an actionable, evidence-based workplan that is covered in the chapters. Often, we forget that the marketing pitch and empathising with your end-users and clients are just as crucial as the game design itself. The contents of this book, despite being 250 pages long, may not be all-encompassing but it certainly is a good kick-starter for laying the preliminary groundwork for your organisation to be future ready for GBL. It will help you address any concerns at the organisational and individual level and devise an actionable plan to implement GBL as a new method of teaching. Being a lecturer, I appreciated that the chapters were written in a mostly academic style that was easy to decipher.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Connell, Raewyn (2019). The good university: What universities actually do and why it's time for radical change. Zed Books Ltd.

Mohamed Fadhil[A] [A] *Lecturer, Kaplan Higher Education Singapore*

DOI: https://doi.org/10.37074/jalt.2020.3.2.24

A recent study argued that the salaries for vice-chancellors in universities in Australia and the UK were very high amidst falling standards in higher education institutions (Heffernan, 2019). Throughout her book, *The good university: What universities actually do and why it's time for radical change*, Raewyn Connell echoes this argument consistently and provides an authoritative and sharp critique of the current state of higher education. Some readers however, may find this scholarly writing rather dry and elaborate. On the other hand, those with an interest in higher education's role in society and the economy will be drawn to this astute analysis of the current state of higher education institutions around the globe. The book captivates audiences with its coherent narrative, broad examples and pointed arguments. The author's voice remains lucid in all the chapters, articulated through her rich and diverse observations and experiences conducting research and working in various universities. She makes it clear that the global state of higher education is at a crucial intersection (at the point of publication), although the COVID-19 pandemic has now completely altered this reality and very likely, transformed higher education into a global complexity.

Formerly a senior lecturer with the University of Sydney and renowned social science researcher, Professor Raewyn Connell has been described as an educational reformer and an intellectual of the Australian Left. Shining a stark and opportune light on this contentious issue, Connell provides a powerful and expansive critique of the current state of higher education in universities. The author, throughout her illustrious career, constantly campaigned for a reformation on how universities ought to be managed and considered. One of the main themes that emerges in this book is the abject state of affairs in many universities. She lamented at how tragic it was to have higher education institutions meant to serve the public are at the same time, creating and sustaining significant social inequalities. It is confounding to comprehend and acknowledge the fact that universities are founded to serve society for its betterment and also for the common good (Dorn, 2017) but as Connell argues, they are now equally responsible for rising inequalities and legitimising them with regressive policies (Sherrington, 2020) that favours the powerful and the elite (Sullivan et al., 2018; Jack, 2016).

Connell's approach carries a certain magnetism, fashioned by the candidness and logic of her arguments. This approach was clearly demonstrated in the first three chapters. In these chapters, she explains in elaborate detail what modern universities actually do. For example, in Chapter 1, she explains that universities are primarily research centres and places of knowledge where teaching and learning takes place. In the next chapter, she extends and develops this line of argument by pointing out the tension between a hegemonic curriculum and the oppression it causes to delimit knowledge formation that benefits society. She added that academics in universities perform the role of composite labour, grappling with having to teach effectively while conducting research under irrational deadlines and adhering to stringent budgets. This struggle, she suggests, is to the detriment of the university and its students.

Connell grieves at the idea of portraying intellectuals as a new breed of an elite class with its own dependent culture separate from common folk. The third chapter develops this point further by discussing the plight of the support staff working in universities. She argues that this idea is severely skewed as the workers forming the workforce at universities are often disregarded and treated as invisible despite their crucial roles to the common good of the institution and their right to be considered as part of the collective intellectual. Her central argument here is that the activities and processes in universities are essentially social processes requiring the collective involvement and seamless collaboration of the people involved at every level in the institution. However, she claims that many of these institutions are now governed by strategies, research funding and targets and more often than not, give credence to managerial vanities instead of acknowledging that universities are massive institutions of research and learning held together informally by networks of people, both academic and non-academic ones.

According to Connell, universities around the world currently face a deepening crisis. In Chapter 4, she argues that

historically, these institutions have served the elite class, and policy research agendas that are predominantly Eurocentric and serve to magnify the Western tradition. This hegemony tragically continues to cast aside societies from marginalised populations, resulting in social and economic inequalities. She situates universities as epicentres of the global economy of knowledge while pointing out the commercial inclination of these institutions with citation indices and publishing contracts. Drawing on international studies, Connell illustrates clearly the leaning of higher education institutions toward corporate-style management, kept afloat by government subsidies, has shifted the objectives of the university from research, teaching, and service to an emphasis on status and competition, which has led, in part, to increasing and overwhelming student debt. She contends that the outsourcing of support services and dependence on adjunct faculty reduce employee commitment, threaten academic freedom, and create a disengagement and deepening the chasm between teaching and research. Despite her sharp criticism on the abject states of modern universities, Connell would later provide a glimpse into her vision of what is the criteria of a 'good university' (p. 178) in the last chapter of the book.

The culmination of all the arguments made in the first four chapters presents itself in Chapter 5. In this chapter, Connell frames universities as 'privilege machines' (p. 104); which happens to also be the title of this chapter; accusing them of undermining collective approaches of public interest research projects to pander to the whims of the managerial elite in the universities, stopping short of naming names. She faults universities for engendering elitism and describes them as institutions purporting an ideology of hierarchy favouring the elite. She extends this explanation in Chapter 6 how universities are now caught in a maelstrom and operated like business enterprises. In addition, the author points out, with several examples from different parts of the world, that neoliberalist attitudes now govern universities. She highlighted that governments considered universities as profit-making organisations instead of being part of the public education system. This, she suggested, was simply treating education like a commodity and therefore, turning it into a privilege for the elite class who could easily afford such education. With this privilege, education then becomes a marketing instrument for universities. Consequently, access to these privileges can be traded and one notable example she mentioned was the increasing tuition fees at these institutions leaving students with little choice but to pay them. As a result, students are instead forced to consider their time at the university in neoliberal terms. Their education now acts as a form of investment to secure their future as well as to meet the needs of the economy.

The last two chapters, potentially the most important ones in the book, turned out to be a stick in the mud when compared to the earlier chapters. In Chapter 7, Connell suggested 'alternative models' (p. 148) and proposed 'reform movements' (p. 161) to facilitate the development of her 'universities of hope' (p. 148) (a term which also forms title of this chapter). However, it is disappointing that these ideas are sketched out aphoristically with little critical evaluation. Unfortunately, Chapter 8 is equally disappointing as the criteria and conditions for the 'good university' (p. 178) mentioned in Chapter 7 were described albeit with little detail on how to go about fulfilling and realising them. Connell describes that a 'good university' ought to be democratic in its operation, be supportive of academic freedom as well as facilitating research that answers social needs. Such institutions would have to be honest in their operations and in presenting themselves to the world, be authentic and innovative in research and teaching, encourage student agency and operate sustainably in the long run. Yet it is likely that the very people who actually manage and run universities today would consider this vision hopelessly utopian and the criteria, despairingly impractical. However, Connell reasoned that such an ideal institution, immersed in cooperation, not competition, is realistic but will require government commitment, societal cooperation and tax support.

The author and Terry Irving, influenced by the New Left student movement at the University of Sydney in the 1960s, aimed to challenge and reform the university by creating democratic processes to facilitate the sharing of views and perspectives of students studying at the university (Irving & Connell, 2016). Nearly half a century later after the initiation of this movement, the author remains steadfast to this cause. Her vision of introducing changes to achieve her idea of creating a 'good university' (p. 178) for the collective public good is encouraging. To observe the author's dedication to this noble cause and her emphasis on promoting research as part of a collective partnership to encourage its integration as transformative knowledge in society is most heartening. At the same time, the notion of moving beyond traditional academe by imagining a collective collaboration of all staff as full-fledged university workers, each one a crucial part of a 'collective intellectual' contributing to the betterment of the university and society, is also laudable. Yet, one fears that to challenge neo-liberal ideas of people who view higher education primarily as a business or commercial enterprise, the author's idea of 'a good university' for the collective good of societies may not be sufficient. It is significant that change must be initiated within academia in its entirety with the involvement of all stakeholders to inform and determine the true definition of a 'good university'.

The outbreak of the COVID-19 pandemic caught the world in a global health crisis (Connell, 2020; Liu et al., 2020), and universities are struggling to keep courses running and research evolving (Thathsara & Kelum, 2020). It appears inconceivable to achieve and realise the idea of a 'good university' while many universities wrestle with budget cuts and staff redundancy (Schleicher, 2020). However, a hopeful start might be to consider organising strengths-based collaborative studies of universities around the globe to mitigate the effects of the pandemic in times of austerity and possibly, realise Connell's vision of reforming universities for the common good of societies around the world.

References

Connell, R. (2020). COVID-19/sociology. *Journal of Sociology, 00*(0), 1-7. https://doi.org/10.1177/1440783320943262

Dorn, C. (2017). *For the common good: A new history of higher education in America*. Cornell University Press.

Heffernan, T. A. (2019). Reporting on vice-chancellor salaries in Australia's and the United Kingdom's media in the wake of strikes, cuts and 'falling performance'. *International journal of leadership in education,* 1-17. https://doi.org/10.1080/13603124.2019.1631387

Irving, T., & Connell, R. (2016). Scholars and radicals: Writing and re-thinking class structure in Australian history. *Journal of Australian Studies, 40*(1), 3-15. https://doi.org/10.1080/14443058.2015.1120224

Jack, A. A. (2016). (No) Harm in asking: Class, acquired cultural capital, and academic engagement at an elite university. *Sociology of education, 89*(1), 1-19. https://doi.org/10.1177/0038040715614913

Liu, Y., Lee, J. M., & Lee, C. (2020). The challenges and opportunities of a global health crisis: The management and business implications of COVID-19 from an Asian perspective. *Asian Business & Management,* 1-21. https://doi.org/10.1057/s41291-020-00119-x

Schleicher, A. (2020). *The impact of COVID-19 on education insights from education at a glance 2020*. OECD. https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf

Sherington, G. (2020). The good university: What universities actually do and why it's time for radical change. *Journal of Australian Studies, 44*(2), 243-244. https://doi.org/10.1080/14443058.2020.1755494

Sullivan, A., Parsons, S., Green, F., Wiggins, R. D., & Ploubidis, G. (2018). Elite universities, fields of study and top salaries: Which degree will make you rich? *British educational research journal, 44*(4), 663-680. https://doi.org/10.1002/berj.3453

Thathsara, M. K., G. & Kelum, A. A. G. (2020). Novel coronavirus (COVID-2019) pandemic: Common challenges and response from higher education providers. J*ournal of Applied Learning and Teaching, 3*(2), 40-50. https://doi.org/https://doi.org/10.37074/jalt.2020.3.2.20

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Branson, C. M., Marra, M., Franken, M., & Penny, D. (2018). Leadership in higher education from a transrelational perspective. Bloomsbury Academic.

Michael D. Evans[A]

[A] *Chairman, Editorial Board, Journal of Applied Learning & Teaching*

DOI: https://doi.org/10.37074/jalt.2020.3.2.27

The book is one in a series called *Perspectives on leadership in higher education* published by Bloomsbury. This is the fourth book that I have reviewed in the series The aim of the series overall was to research and discuss the challenges facing universities in the 21st-century, and with a focus on leadership to meet and respond to these challenges.

A central premise in this book in the series is the distinction between leadership and management. In the introduction, the authors refer to the origins of both terms and observe that *Management* comes from the Latin word, meaning to handle or restrain, with particular reference to a horse. *Administration* also has Latin roots, meaning to serve. In contrast, *Leadership* has its origins in old English and Germanic words, meaning to guide or showing others the way. The word leader evolved to meaning someone guiding a group or the person in first place, hence to lead. By the 19th century leadership had been used in theatrical settings to describe the person who took the lead role in the production. It was not until the 20th century that leadership was applied to those leading organisations.

Within this context I can recall my first experience with University management, leadership and administration. At this time, management and administration was largely undertaken by a 'super registrar', with outposted staff undertaking administration in the faculties. The overall leadership of the university was in the hands of the Vice Chancellor. The Vice Chancellor was the overall leader of the institution, from an academic direction point of view as well as having accountability for the success of the institution, and generally leading in a collegial way. At a departmental level, a head of school would handle the management and administration of the school in conjunction with the outposted central staff, and may or may not have had leadership responsibilities. More often than not, academic leadership was separate to the management of the school or faculty. Academic leadership generally came from the professors of the school, also in a collegial way. Over the years with increased managerialism the positions seem to have merged with the head of the school or faculty being called the leader of the faculty notwithstanding the fact that such a leader was really more of the manager and administrator, as managerialism prevailed. At the highest level, Vice Chancellors also seem to have taken on a role more like a CEO. While in the past, their appointment may have been linked to having been superior scholars, a different skill set seems to be required, encompassing management, administration, as well as leadership. Institutions have also grown to become multi-billion-dollar enterprises, most with multi-national activities and facing significant challenges on many fronts, placing increased demand for high level leadership skills.

Of particular interest in the issues raised in the book is the notion that a leader develops and changes culture, whereas management and administration operate within an existing culture. This clearly identifies the role of the leader in setting a pathway for the organisation and creating the culture with which to deliver on the vision.

The book is organised into an introduction, eight themed chapters and a conclusion. The first themed chapter considers organisational culture and the vital role that it plays within organisations. Specifically, it looks at leadership in a higher education context and looks at relevant literature highlighting the critical importance of culture. It identifies research around the impact of increased managerialism and observes negative consequences including an adverse impact on the cultural norms and expectations within higher education institutions.

Chapter two develops a theoretical foundation for leadership and develops the concept of transrelational leadership. The four fundamental qualities of a transrelational leader are identified and discussed. At the heart of leadership is the leader's ability to interact and develop relationships within the group. It is argued that effective transrelational leadership results in a group accepting and endorsing a person as their leader. Chapter 3 builds on this theory to develop descriptions and illustrations of what such an approach to leadership would look like if adopted by leaders.

Chapter 4 considers the concept of power and influence within the organisation. It is proposed that power in a transrelational world is founded through inclusion and transparent means, rather than coercion and control often present in more traditional views of organisations. The chapter concludes with the view that transrelational leadership is more likely to raise commitment and motivation from those working for the leader.

Organisational change and the challenge provided by the need for change is discussed in chapter 5 in terms of how transformational leadership can lead to successful change in comparison to other leadership theories.

The subject of chapter 6 is how to achieve high performance within an organisation using a transrelational leadership approach. At the heart of this is trust and the encouragement of employees to take risks in the development of creativity and innovation within the organisation. Trust is obviously a critical element so that employees can be innovative, make mistakes and learn from their mistakes in a supportive trusting environment.

Chapter 7 considers the impact on human resource management of transrelational management and has some almost scathing views of the way HR is handled currently in many higher education institutions.

Chapter 8 considers learning within the organisation. This chapter describes a project from a university in New Zealand that has been concerned about improving its performance through improving leadership practice within the institution. The institution in question was prompted to undertake the project having observed that many academics come into leadership roles without knowledge and understanding of leadership in its various forms. The chapter concludes with a valuable critique of the challenges associated with change within higher education institutions.

In conclusion, the authors note the concept of transrelational leadership has potential for adoption across Higher Education institutions and in fact is strongly preferred as an alternative to the rise of managerialism. However, they are very clear that while there are many perceived benefits, there are a number of challenges to be overcome, not the least being general acceptance that transrelational leadership is the appropriate form of leadership to be adopted in that sector.

Overall, the book is a valuable contribution to the series and, more importantly, the debate over the future of higher education institutions and the leadership required to adapt to external pressures and change.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Banegas, D. L. (Ed., 2020). Content knowledge in English language teacher education. Bloomsbury.

Sophia Sin-Manw Lam[A] [A] *Senior Lecturer, Education University of Hong Kong*

DOI: https://doi.org/10.37074/jalt.2020.3.2.26

A concern with teachers' content knowledge has been growing alongside the growth in pedagogical knowledge and, as the title of this book refers to explicitly, teacher education. Teachers' English knowledge, as Banegas argues, has been brought about on the one hand by effectiveness of teaching English, and on the other by teachers' professional identity. The book aims to discuss a key question: How much English should a teacher of English know to teach it effectively as a second / foreign language?

The book comprises an introduction by the editor and fourteen chapters. Chapters 1 to 9 focus on English as a system, while the remaining chapters concentrate on English language proficiency. Banegas explains "knowledge about language" (p. 3) as English as a system. In other words, in English Language Teacher Education (ELTE), linguistics is the content knowledge. And English language proficiency refers to "the aspects of being able to do something with the language as knowing about it" (p. 3). The relevance of the book is consideration of context circumstances. Not only the contributors include teacher educators, university lecturers and English teachers, who presented how they develop and configure knowledge of and about the English language; but also the studies were taken place in a wide range of geographical settings, including, the United States, Latin America (i.e. Argentina, Chile, Ecuador and Mexico), Asia (i.e. Japan, China) and Australia, some of them being underrepresented in the international literature.

In Chapter 1, Ikeda introduces how History of English gives teachers and student-teachers history-based tips of teaching language knowledge and helps learners study and use English with historical insights in mind. The author argues that it can only partially contribute to learners' English acquisition. In Chapter 2, Chappell suggests that theory and practice are woven together to present a pedagogically relevant and practical linguistics for second language teaching and learning. The author argues that a functional model of language provides an effective pedagogic grammar for language teacher education. It explicitly relates the functional language system to the cultural and social contexts in which it is used. It offers a systematic description of how language use varies from one context to the other by considering the differences in ideational content, interpersonal relations between speakers/ writers/ readers and the mode of communication.

In Chapter 3, Anglada describes two commonly adopted teaching approaches to English grammar, namely a formal model and systematic functional model. It aims to present the focus and learning activities in Initial English Language Teacher Education (IELTE), and reflect on the twofold essence of language grammar, the *form* (linguistic expressor) and *meaning* (functional purpose). In Chapter 4, Hardacre and Snow showcase one of the courses - Pedagogical Grammar of a Masters TESOL programme. The course attempted to provide an overview of all major topics of grammar as well as strategies and best practices regarding the teacher of grammar. It offers concrete and useful explanations of the teaching content, such as use of linguistic corpora, strategies of giving feedback, examples of grammar activities adopting content-based and task-based learning.

In Chapter 5, Schmitt outlines the use of other languages in the linguistic analysis course at an ELTE programme in the United States. The context is where students are mostly bilingual or with considerable diversity among the native speakers of English. Incorporating other languages into learning activities, for instance, a Chinese language menu and Portuguese language street signs, it promotes the engagement of students, creates a more democratic space, and from the notion of translanguaging, it increases the flexibility of the teachers and students. In Chapter 6, Zhang and Wei present empirical evidence of five students from the *English as a Global Language* module of an MA TESOL programme in a Sino-UK international collaborative university in China. The Chinese students' realisation and legitimisation of the plurality of Englishes is found in the study. Most importantly, the course equipped the students to reflect on the English variety in China and challenges teachers to apply world Englishes to teaching at primary and secondary level are addressed.

In Chapter 7, Heras presents the design of the module *Basic Pragmatics* in an IELTE programme in Ecuador. The chapter addresses the importance of pragmatics in language teaching and learning and suggests that videos, in particular films, are among the best materials when teaching pragmatics in language classrooms. In Chapter 8, Serrano and Méndez show how traditional Discourse Analysis (DA) is introduced in an IELTE programme in Mexico. The course included different approaches of DA as well as the students experiencing of doing DA. Positive comments from the student-teachers demonstrate a rise in awareness of the theoretical concepts in discourse and their application to social and cultural reality.

In Chapter 9, Blázquez, Espinosa and Labastia describe the diction module which adopted both intuitive-imitative and analytic-linguistic approaches to the acquisition of pronunciation in Mexico. The module focuses on both segmental and suprasegmental aspects of English pronunciations for mixed-ability groups of student-teachers. They engaged in an inductive way of learning with consciousness-raising activities. The chapter also provides insights on students' affections in learning pronunciations. In Chapter 10, Banfi details the module – *English Language IV* – of a teacher education course, which has been taught in different institutes for 20 years in Argentina. The comprehensiveness of the module not only enables the students to articulate prior knowledge but also develops student-teachers' linguistic, academic and professional skills.

In Chapter 11, Jeldres and Espinoza show the design, implementation and evaluation of the strategy of a writing portfolio in an IELTE programme in Chile. The empirical evidence from 34 first year student-teachers showed improvement in writing production adopting portfolio as a tool in a process-oriented learning approach. The study also aimed to develop students' language proficiency and reflective skills. In Chapter 12, Barahona and Benítez present an ELTE programme in Chile with an emphasis on enhancing the English language proficiency of student-teachers. The module Advanced English is based on a sociocultural perspective of learning, empowering students to be active and independent thinkers. The teaching approaches of the module include task-based, project-based and content-based approaches, and use of authentic materials. The highlight of the module is the adoption of a wide range of ten assessments which focus on four skills, for instance, mini-essays, speaking projects, and the use of an English test. The positive feedback and concrete examples given by the student-teachers proved the effectiveness of this well-designed module.

In Chapter 13, Güngör introduces the non-native student-teachers' English Language Proficiency (ELP) in Turkey. It summarises the development and issues of initial ELTE programmes as well as the student-teachers' English language training from international and national studies. Most importantly, it suggests the importance of ELP of English teachers and their ability to teach the language. The chapter also focuses on the ways content knowledge is approached and to develop linguistic and pedagogical knowledge of English student-teachers in Turkey. In Chapter 14, Soto and Ramírez discuss incorporating cultural elements into the *Workshop on Language Skills* which aims to enhance student-teachers' English language proficiency in Argentina. It suggests that raising cultural awareness of student-teachers not only is beneficial to their language proficiency, but also helps to develop their own teacher's cognitions and identity as well as to enrich their language-learning journey.

In sum, the variation between individual chapters in terms of the issues they addressed, the approach taken and the depth with which empirical data are analysed, this volume will be valuable for many readers involved in teacher education, language teaching and language researchers. A highlight of the book is that at the end of each chapter, the section "Questions for change" addressed fundamental questions about the topic, as well as leading the reader to reflect on the implementation of the concepts/theories into practices. Various contributors offer thought-provoking and refreshing perspectives on controversial issues. As a teacher educator and reader, I was prompted to think critically about some of the established practices in my own pre-service teacher education context. All in all, this book provides a strong argument for designing and developing English Language Teacher Education (ELTE) by different teacher educators in situated practices around the world.

Vol.3 No.2 (2020)

Journal of Applied Learning & Teaching

ISSN : **2591-801X**

Content Available at : **http://journals.sfu.ca/jalt/index.php/jalt/index**

Robinson, D. (Ed.). (2019). Classroom behaviour management in further, adult and vocational education. Bloomsbury Academic.

Eric Yeo[A]

A *Lecturer & Academic Partner Liaison, Kaplan Higher Education Singapore*

DOI: https://doi.org/10.37074/jalt.2020.3.2.23

I remember the days before my first teaching assignment in higher education four years ago, I obtained permission from some of my teacher friends to sit through their lessons, mainly to observe the way they engage their students and also how they managed their classroom. Having completed my Masters in Education, I thought it would be better to see and feel the classroom for myself. I visited classes taught by four different teachers in higher education and it was an eye-opening experience as they adopted their own ways of managing students in their classrooms. The first teacher used humour to drastic effect, engaging students and linking stories to learning outcomes and time went by very quickly. However, there was a student who was an hour late to class and the lecturer took every opportunity for the remaining time he had to remind her of her tardiness and lack of respect. Oh, the irony. In another one of my visits to another teacher's class, the stance taken was strict and firm. Having set ground rules on the first lesson, he firmly denied entry into the classroom for a student who had stepped in 45 minutes late. One other lecturer didn't care too much about what the class was doing and taught to a group of "interested" students while another lecturer cared a little too much about what each student was doing which affected his delivery.

Classroom behaviour management in further, adult and vocational education, edited by Denise Robinson had caught my attention when it was first introduced to me. I had admittedly, not read much on classroom management and solely relied on my own experience as well as having peers sit in my class to provide feedback to manage the students' behaviours. Robinson's book provided insight of classroom behaviour management across the spectrum of post-secondary education levels where lecturers potentially have less authority due to the smaller gap in age difference between teacher and students and in some cases, where students are older than the teacher. As much as the book is meant to provide teachers with strategies to combat disruptive students and understand student behaviour in the classroom, it works very well for education administrators in higher education for formulating code of conducts for both teachers and students.

The book starts off with a review of the term "classroom management" and explores a few definitions under different contexts. The main takeaway from this chapter is to reflect on one's classroom management style and whether it has taken away from the students' learning experience. In the strictest understanding of the term, it could be ensuring all students are not meddling with other devices while the lecture is ongoing and perceived to be paying attention. If that is the main goal of the lesson, then much time will be devoted to disciplining students while ensuring order is in place. It was quite stark that the author issues a warning for teachers to not be classroom managers and left much food for thought on one own's classroom management philosophy.

Each chapter of the book focuses on different unique behaviours and the inevitable disruption that a teacher might potentially encounter and just like the first chapter, case studies and scenarios are provided with the results recorded. I personally found chapter 7 extremely helpful, considering the number of strategies that are provided there which helps one to formulate a positive classroom environment that helps to elicit positive classroom behaviour from the students. What I also enjoyed about this book, is that it does not read as overly prescriptive but allows one to be influenced by the words of the author and then reflect on some questions at the end of each chapter. I found the reflection exercises beneficial in my reflection as a teacher and would suggest this as an exercise to complete after one or two terms of teaching. Even though some parts of the book are slightly harder to digest, especially the parts where it delves into the different philosophical views of understanding classroom behaviour and how to manage them, it is nonetheless a useful resource for both teachers and educational administrators in higher education.

All teachers, experienced or inexperienced, should consider picking this book up and have a go. Prioritise the chapters that are most relevant and leave the rest for later. Surely, the contents of this book will cause teachers to ponder the way the classroom is managed and whether as a teacher, does one teach to serve their students, or to be served as an all-knowing sage.