

2020

Enabling cross-cultural student voice during COVID-19: A collective autoethnography

Samuel Wilson

University of Tasmania, Australia, samuel.wilson@utas.edu.au

Shannon Tan

Kaplan Higher Education, Singapore, shannon.tan@kaplan.com

Matthew Knox

University of Tasmania, Australia, matthew.knox@utas.edu.au

Angelia Ong

Kaplan Higher Education, Singapore, ngliaong@gmail.com

Joseph Crawford

University of Tasmania, Australia, joseph.crawford@utas.edu.au

See next page for additional authors

Follow this and additional works at: <https://ro.uow.edu.au/jutlp>

Recommended Citation

Wilson, Samuel; Tan, Shannon; Knox, Matthew; Ong, Angelia; Crawford, Joseph; and Rudolph, Jürgen, Enabling cross-cultural student voice during COVID-19: A collective autoethnography, *Journal of University Teaching & Learning Practice*, 17(5), 2020.

Available at: <https://ro.uow.edu.au/jutlp/vol17/iss5/3>

Enabling cross-cultural student voice during COVID-19: A collective autoethnography

Abstract

Higher education learning and teaching has faced a significant challenge in 2020. The novel coronavirus pandemic (COVID-19) has required institutions to engage in emergency response teaching and deliver distance, online, or socially distanced delivery in most jurisdictions globally. The literature to date has focused on understanding this from the perspective of the institutions and academics primarily. For example, institutional case studies and staff critical reflections. There has been literature published on student learning, student experience, and student wellbeing during COVID-19, but these are typically constructed through an academic lens (e.g. a student satisfaction survey). This research offers a co-constructed account developed adopting a students as partners philosophy. Our research team includes four students from two countries (Australia and Singapore) to independently reflect on their experience and collectively consolidate their learning journey through the pandemic, and be mentored and supported by two academics. Our findings indicate that students feel generally disconnected from their experience. Students felt their agency was important, self-awareness and accountability enabled this. Students also reflected that changes to their learning environment had made it more difficult to create social connections. They also include opportunities to change our teaching practice to be more supportive of our students' collective learning during COVID-19.

Keywords

Coronavirus, emergency response teaching, online learning, student perceptions, student wellbeing, student experience

Authors

Samuel Wilson, Shannon Tan, Matthew Knox, Angelia Ong, Joseph Crawford, and Jürgen Rudolph

Introduction

In 2019, the higher education sector was amidst a revolution towards innovative forms of online learning to either supplement or replace traditional face-to-face offerings. The literature on higher education technology enhanced learning and teaching (TELT) was rapidly growing, with special interest to student perceptions thereof (e.g. Cole et al., 2019; Kemp, 2020; Owston et al., 2019). The TELT literature is discussed as blended learning, online learning, and digital learning, among many other phrases. Some of the prominent innovations forthcoming include immersive learning environments (Herrington et al., 2007), massive open online courses (MOOCs: Goldberg et al., 2015), and the digital efficacy to enable student learning in these contexts and many others (Spante et al., 2018). In 2020, the practical evidence surrounding online learning was completely different.

The novel coronavirus (COVID-19) pandemic has rapidly changed the higher education landscape, and has created unavoidable conversations about the nature of learning in higher education. The intra-period, following from the first positive case in Wuhan, China, has seen most universities required to respond to changing government restrictions (e.g. lockdowns and circuit breakers) and move temporarily online (Crawford et al., 2020a). Each university has created their own response, with a review of the evidence identifying the parallels across university strategies globally. Indeed, the objective of many manuscripts to date has been on understanding and documenting cases of higher education institutions and their responses (e.g. Jacob et al., 2020; Toquero, 2020). Each of these cases have focused on scholarly assessments of institutional, academic, or student responses. These provide case studies, critical reflections, and collected data to support evidence-based decision making. It is likely that there will be significantly more of such literature forthcoming. However, there is a clear lack of student voice in the COVID-19 literature.

There is some literature that focuses on students, and capturing their opinions, and we discuss this further below. Our focus is not on simply asking students questions, but rather to engage these students as partners in understanding their complex learning circumstances during the coronavirus pandemic. We saw this research as an opportunity to reduce power barriers between the researchers (typically academics) and the students (typically ‘the researched’); a benefit of the students as partners process (Matthews et al., 2018).

To this end, we seek to leverage a more balanced relationship between the researcher and researched in the pursuit of a timely understanding of the student learning experience during COVID-19. The aim of this manuscript is to change that, by asking the question:

How is the student learning experience being affected by the COVID-19 pandemic?

To address this research question, we begin with a brief overview of the literature on COVID-19 in higher education, with a focus on the student-based literature. This also provides context for the students as partners literature drawn on in the structuring of this team and the subsequent write-up. Next, is an overview of the collective autoethnography conducted, and a documentation of the assumptions and practices adopted. The findings from the collective thematic analysis are presented, along with a discussion on the practical implications of these findings. Importantly, limitations and future research are drawn on as the manuscript draws to a close.

Literature review

The novel coronavirus pandemic (COVID-19) has had a far-reaching and swift effect on the higher education sector. Butler-Henderson et al. (2020a, 2020b) recently reviewed the emerging academic literature (1 January 2020 to 30 June 2020) and created an open access database, *COVID-19 in*

Higher Education Literature Database (CHELD) Version 1. Some key findings from the initial database identified an emphasis on single institutional studies, single country studies, and a focus on academic orientations of the pandemic. The student voice has been represented through surveys; however, these are largely superficial (e.g. basic student evaluations rather than in-depth research). This section provides a brief background on the situations in Australia and Singapore and identifies a gaping research lacuna.

Australia

COVID-19 has put immense pressure on Australian universities, with an influence well beyond the Severe Acute Respiratory Syndrome (SARS-CoV) outbreak of 2002 (Feast & Bretag, 2005). Initially, and prior to various government bans on public gatherings that escalated during March, 2020, the responses varied (Crawford et al., 2020a). After students tested COVID-19 positive, campuses were thoroughly cleaned, and often, there was a ‘watch and wait’ approach (Pather et al., 2020). Some universities temporarily halted operations to focus on rapid digitalisation by delaying commencement dates, while others initially continued face-to-face learning with social distancing protocols and supplemented online offerings. A third approach was the rapid progressions towards online learning without suspending offerings (Crawford et al., 2020a). In late March, however, all universities were forced online with government physical distancing requirements preventing on-campus delivery.

Australia’s international higher education market, a pre-pandemic \$37 billion industry, is currently witnessing a “dramatic COVID-driven collapse” – characterised by “devastating revenue shortfalls, mass staff layoffs and a sense of imminent ‘existential crisis’” – that calls into question the viability of its current business model (Doidge & Doyle, 2020, p. 1; Davies, 2020). The pre-pandemic successful international growth strategy was largely enabled by international student revenues that included a problematic over-reliance on students from China (Babones, 2019; Doidge & Doyle, 2020). It led to new buildings, increased research funding, a richer campus life, and allowed Australian universities to aggressively climb up international league tables (Davies, 2020).

Foreign students provide approximately a quarter of universities’ income, with four leading Australian universities — the University of New South Wales, Sydney, Melbourne and Monash — receiving more than a third of their income from international students (The Economist, 2020). The collapse in international student numbers is forecast to cost Australian universities up to \$4.8 billion this year, and up to 21,000 permanent staff members may be retrenched over a period of six months (Jackson, 2020; Rapid Research Information Forum, 2020; Doidge & Doyle, 2020). For some universities, the current climate is close to dire (Marshman & Larkins, 2020). The drastic decline in international student revenues is exacerbated by recent governmental policy decisions that implement ‘price signals’ to denote the governmental preferences of disciplines. In what has been polemically described as a “culture war” waged by a conservative government, more graduates in areas such as teaching, nursing, agriculture, STEM and IT are desired, whereas graduates in the humanities and social sciences (other than English and languages) are deemed less useful (Doidge & Doyle, 2020).

Singapore

Singapore’s higher education scene features local Autonomous Universities (AUs) as well as international universities that have either set up their own campuses or deliver their transnational education through Private Education Institutions (PEIs) in a variety of ways (Sam, 2017). PEIs are not permitted to offer their own proprietary undergraduate and postgraduate degrees; transnational and proprietary programmes (typically Certificate and Diploma programmes) are permitted under regulatory supervision of the Committee of Private Education — a government agency under

SkillsFuture Singapore (SSG). At present, there are six AUs (National University of Singapore, Nanyang Technological University, Singapore Management University, Singapore University of Technology and Design, Singapore Institute of Technology, and Singapore University of Social Sciences), 297 PEIs in Singapore (SkillsFuture Singapore, 2020) and nine foreign branch campuses in Singapore (École Supérieure des Sciences Economiques et Commerciales, Institut Européen d'Administration des Affaires, S P Jain School of Global Management, DigiPen Institute of Technology, Curtin Singapore, German Institute of Science and Technology, Sorbonne-Assas International Law School, James Cook University Singapore, and St.Gallen Institute of Management in Asia).

Initially, Singapore's education system did not witness measures quite as drastic as some other countries: Universities and schools were not closed — with some institutions of higher learning teaching fully online, while others pursued blended learning approaches (Crawford et al., 2020a). Face-to-face classes were supported by online strategies, leveraging the EdTech boom of recent years. Singapore's universities use web-conferencing platforms such as Zoom, BlackBoard Collaborate, Webinar, and Panopto, partially as contingency measures and partially integrated into their learning management systems (Fung & Lam, 2020).

By early April 2020, the rate of new infections had increased alarmingly. As a consequence, new, stricter “circuit breaker” measures that were implemented in early April, schools and universities were compelled to switch to home-based learning between 8 April to 1 June. Universities responded by conducting all lessons online and by converting their exams into a variety of online formats or take-home assignments (Ang, 2020; Bonk et al., 2020; Cleland et al., 2020; Compton et al., 2020). Two of Singapore's most prestigious universities – Nanyang Technological University (NTU) and the National University of Singapore (NUS) – began to allow students to take more modules on an ungraded basis, providing a satisfactory/unsatisfactory (S/U) option that does not affect their grade-point average (Bonk et al., 2020; Mahmud, 2020).

Students as Partners

The database on the first six months of higher education research during COVID-19 (Butler-Henderson et al., 2020a, 2020b) identifies limited student voice enabled studies to date. Indeed, very few of the 138 scholarly articles systematically address the concerns of students leveraging students as partners in the process of research (Crawford et al., 2020b). In the same regard, only one (Schuiteman et al., 2020) of the articles (co-authored by four medical students and focusing on student government) published in the database appears to be student-led. We recognise the importance of engaging with students in the process of understanding and improving their lived experience during the pandemic. We offer this article as one of the first contributions to address this research lacuna as regards COVID-19 and students as partners in higher education.

Students as Partners in higher education envisions students and academics as active collaborators in teaching and learning (Healey, 2014; Mercer-Mapstone et al., 2017). In writing this article, we were mindful of the importance of reciprocity in partnership in creating an inclusive learning community (Mercer-Mapstone et al., 2017). We also sought to appreciate the current workload of students, and to enable direct student voice with as little student fatigue as possible (Billett & Martin, 2018). Healey et al. (2014) have come up with a evidence-based and well-established model that conceptualises four overlapping categories of partnership: subject-based research and inquiry; scholarship of teaching and learning (SoTL); curriculum design and pedagogic consultancy; and learning, teaching, and assessment. Mercer-Mapstone et al. (2017, n.p.) aptly summarise that this model “positions students and staff as co-teachers, co-inquirers, curriculum co-creators, and co-learners across all facets of the educational enterprise”. The process of students as partners facilitates

a collaborative partnership that “disrupts existing social and academic boundaries that can act as barriers” for students (Savage & Healy, 2019, p. 3). In a framework for inclusive design, delivery, and evaluation of blended courses, input from students is recognised at the same level as input from instructional designers and academics (Miles & Foggett, 2016). We focus in this manuscript on enabling student input, recognising this as missing from the contemporary COVID-19 literature.

In our article, the four students were mentored by the two academics, with an opportunity to support their co-creation and leadership in the process of research. The focus in this manuscript is on co-creating knowledge within a SoTL landscape. By engaging students in the process of research, we argue that students are able to critically evaluate their experience within COVID-19 without pre-existing scholarly assumptions held by higher education researchers. We sought to engage in the deepest level of consultation within all aspects of learning, teaching, and assessment.

Method

We adopted a collective autoethnography to enable critical reflection on four student experiences (Chang et al., 2013). We position such an approach within an interpretivist paradigm that seeks to examine the perceptions of students and their deeper meaning (Morehouse, 2012; Smith, 2008). Our philosophy is to examine the effect of COVID-19 from the perspective of students who have studied both before and during the first phase of the pandemic. A collective autoethnography provides the opportunity for student voice, despite that it is currently a contested methodological decision (see Chang et al., 2013; Guyotte & Sochacka, 2016; Lapadat, 2017). The focus of the study was to enable cross-cultural and cross-disciplinary analysis, and as such virtual methods were required (e.g. Crichton & Kinash, 2003). This enabled the researchers to collaborate through interactive zoom reflection sessions, particularly providing space for the students to collectively consolidate their thoughts prior to reconnecting with the academics. We also see value in connecting and consolidating understandings across cultures, and this was enabled through two Singapore students and two Australian students.

In alignment with previous research (Beasy et al., 2020), the emphasis has been on enabling an ethical research process that provides voluntary opportunities to participate, de-identifying autoethnographies before collective examination, and by applying gender neutral pseudonyms to protect the identities of the student partners. We acknowledge the broad literature on students as partners, and have sought to adopt recommendations and principles from the literature on engaging with students for research (e.g. Healey et al., 2016; Matthews, 2017; Mercer-Mapstone et al., 2017). The authoring team were ‘the researched’ (Chang et al., 2013), and each student in the team wrote a brief and independent autoethnography addressing two broad questions:

*How and why has COVID-19 affected my ability to learn?
How does this make me feel?*

These documents were de-identified and provided pseudonyms. Each member of the team, independently, conducted the analysis and reflected on the themes emerging in the written source documents. The average length of the four source documents was 803 words (range between 573 and 1,168 words). This created an opportunity to immerse in each context without groupthink, and enable ethnographic reflexivity (Delamont, 2009). This process reflects the first three stages of thematic analysis (Braun & Clarke, 2006): familiarisation with the data, coding (independently), and searching for themes. After this, consolidation was aimed for, and a series of four key themes were arrived at: accountability, awareness, socialisation, and environment. This included the review of

themes, as well as defining and naming each theme (see Table 1). Finally, these themes were constructed and explored.

Discussion and findings

The student experience encapsulates a diverse audience. Perceptions are largely subjective, with commonalities recognised through broad terminology and patterns of behaviour. The following themes, drafted by the four authors who are students, begin to unpack the findings identified within the current student experience to provide opportunities for critical synthesis. The student experience does not occur in a vacuum and is highly reflected, based on interaction amongst the four student authors and also our reflections on the academic discourse.

The following section is a discussion of this studies findings, synthesising the reported student experience with the relevant literature. We begin with an analysis of accountability, with a focus on student discipline, motivation, self-initiation and responsibility. Next is the consideration of awareness. Student perception provides an insight into processes behind understanding of self-domains within external environments. Third is socialisation, looking into the dynamics of physical and online interactions within the student experience. Lastly, the environment provides a window into the interplay of external factors influencing the student learning experience. We provide a summary of these themes, along with our coding rules to highlight the reflexivity of the researchers and transferability of our research to alternate studies and contexts, in Table 1.

Table 1. Themes identified

Theme	Coding rule	Example
Accountability	Accountability dictates the responsibility one feels for their actions, their engagement with this process and their moderation of self-efficiency and initiative.	<i>“COVID has had many negative impacts on our daily lives, but it has also taught us to be resilient and adaptable to changes in the environment: Being resilient, the core mentality that adults of this era should have; to fight through this pandemic, and to grow into a stronger person.”</i>
Awareness	Awareness is having the capacity to self-reflect, experience and process stimuli. It is a process of understanding self-domains as being distinct from the rest of the environment.	<i>“External circumstances forced me to adapt, and now I believe I am an improved version of my former pre-COVID pandemic self. I will take this knowledge with me into future study and endeavours.”</i>
Socialising	The dynamics and polarisation of physical and online interactions within the student experience.	<i>“As a social person, the need for physical interaction is necessary for our learning. This deficiency by other team members in the online breakout groups may be a demotivating factor rather than constructive for students who are all ready for a productive discussion. When breakout group discussion happens during a lesson, and the breakout team members are not contributing, it feels like a choir with a solo singer.”</i>
Environment	The interplay of external factors, such as the environment, context of learning, and working and living conditions that impact the student learning experience.	<i>“The global 2020 pandemic, inevitably disrupted me as a full-time working adult and part-time student, it confined me to the comfort or distress of our home.”</i>

Accountability

Accountability is about being responsible for one's actions and staying committed to learning and growing. An individual exercising accountability would ideally achieve self-efficacy and initiative in her own learning journey (Sheldrake & Linke, 2018). The shared student experience displays an interesting relationship with accountability, with behaviours such as engagement tending to rely on bipartisan accountability. Student engagement surmises individual's active participation in academic and non-academic endeavours, typically driven by a variety of socio-cognitive factors (Payne, 2017). With the transition from traditional learning to online learning the nature of this relationship became digital, the student authors of this article gave significant thought to this:

"It was common knowledge that the University would be lenient in marking and allocating tasks to compensate for a state of emergency and confusion. These mechanisms can be argued to be a double edged sword; providing security but promoting laxness" (Jaidyn).

"Discipline is within my control, and I understand what I am going to miss if I do not want to focus on my online learning" (Charlie).

According to Skinner (2009) and Lin (2012), student engagement is significantly related to an individual's academic motivation. Academic motivation is the perception and discipline that fosters an individual's underlying objectives and goals, shaped by prior experiences, and cultural background (Lin, 2012). Students with increased parental and peer support tend to display increased academic motivation, increasing positive social objective and classroom behaviours, eventually encouraging heightened student (cognitive) engagement (Skinner, 2009).

Understood as a person's ability and beliefs to overcome a situation, self-efficacy also fuels student engagement (Bandura, 1977). According to research by Dogan (2015), students with higher self-efficacy have increased engagement and are observed to be more conscientious in learning behaviour. The students' autoethnographies demonstrated their awareness in the necessity of self-regulated learning and how self-motivation is significantly related to one's accountability in academic success.

Student accountability is moderated by the influence between emotional engagement and students' ability to learn from their environment. Emotional engagement encompasses students' sense of belonging, interest, and enjoyment, which impacts their resilience and persistence in learning. It further influences and reflects behaviours, attitude, and compliance to norms (Skinner & Pitzer, 2012). Students who are emotionally engaged and committed to learning despite external stressors, exhibit increased resiliency and persistence (Wimpenny & Savin-Baden, 2013). Students who also experience enthusiasm, support, and interest in what they are learning are more able to cope with stressors, which increases resilience and persistence. These emotionally engaged students are also more aware of their personal feelings, thoughts, and 'bounded in time experience'. Therefore, they are more determined to challenge themselves and expend effort, eventually, increasing academic engagement and success (Ahmed et al., 2018).

The students' autoethnographies illustrate their reactions when surmounting challenges:

"The distractions at home such as pets and the ability to use the internet may also impede learning" (Charlie).

"Despite external stressors, I performed well within my COVID-19 learning environment... I became more in touch with what worked for me regarding learning styles and time management" (Jaidyn).

Accountability and student engagement have been discussed in the perspective of psychological, behavioural and emotional constructs under the facets of self-efficacy, self-motivation, and psychological engagement. The student's ethnographies have both explicitly and implicitly emphasised the importance of these intrinsic motivations (goals, psychological needs, inquisitiveness) in their process of growth as individuals. Due to the different intrinsic resources one might possess, an individual may lack self-motivation and interest, while the others possess an overflowing amount of grit and motivation (Reeve, 2012). By identifying the contributing factors, facilitators can address the correct resources to nurture and facilitate high-quality student engagement and increase students' resilience.

Accountability can also represent the effects of structural influences on the student learning experience such as society, university, and niche communities, and how the student reacted as an accountable being to the relevant structures. The structure of the student learning experience underwent fundamental changes brought about by the coronavirus pandemic. The most apparent and obvious change throughout the autoethnographies is the shift from physical interaction with structure, to an online interaction. The autoethnographies reflect that traditional accountability mechanisms are lost from the student learning experience. A dominant theme in this is the proximity to lecturers or teachers; elements associated with gains in cognitive performance and learning (Keppell et al., 2006).

"...While the removal of external distractions does make studying itself easier, studying in the same room every day for six months, combined with validation of success reaching its potential over zoom... to say the least, life at home makes life feel like it's going around in circles" (Dominique).

"My schedule appeared less important to adhere to. Lectures became easily pushed to a later date" (Jaidyn).

Once online learning mechanisms establish themselves within the student learning experience, the degree of student accountability displays a shift toward an increasingly self-motivated endeavour. Ultimately, this process fosters resilience and proactivity.

"...Because we are unable to meet our classmates in face-to-face sessions, group assignment teams became more proactive with additional efforts to ensure constant communication to bridge any possible gaps" (Charlie).

"As all lessons were conducted online, it also allowed me to engage in more activities, such as joining an investment club and attending virtual workshops to increase my knowledge" (Ashley).

Another consistent theme throughout the autoethnographies is the student's willingness to learn despite the perceived unfavourable circumstances associated with online learning. Students who emotionally engage in their learning are more committed to having a positive learning experience (Wimpenny & Savin-Baden, 2013). Despite external stressors, the students of these ethnographies all display a degree of self-motivated accountability in seeking out and achieving a positive learning experience. This cannot however be done without giving attention to one's everyday experiences.

Awareness

Awareness is having the capacity to self-reflect, experience, and process stimuli. It is a process of deeply intrapersonal connections to one's self as distinct from the rest of the environment (Morin, 2011). Considering the autoethnographies, awareness is reflected through three psychosocial lenses: cognitive, affective, and behavioural. Within the transition from traditional learning to online learning, the students shared their initial feelings of anxiety with the university's decision to convert all learning to online platforms. They mostly express concern with the effectiveness of learning, delivery of assessments, and availability of amenities that facilitate maximum learning. For example:

"[I had] feelings of anxiousness... for lack of human interaction... technological difficulties... and ineffective communication" (Ashley).

"Some concern, worrying that online learning could have an impact on the effectiveness of my studies" (Charlie).

The student reflections demonstrate a high baseline degree of psychological distress and anxiety within the remote teaching context. According to Sahu (2020), the transition from face-to-face learning to online learning shows a significant impact on students' assessment and evaluation. Emergency remote teaching involves implementing under-tested educational technology that lacks appropriate academic development or end user support, resulting in regular downtime or technical difficulties. Moreover, as procedures and administrations of evaluations have to be changed, students and academics are forced to adapt quickly. Among these disruptions, concerns of academic integrity and inadequate internet facilities arise, adversely affecting the performance and equity of students (Koetsier, 2020; Holden et al., 2020). It is evident in our autoethnographies that each of these obstacles only add to a fluctuating affective state of anxiety. Furthermore, the students show awareness of their preference for greater interaction and collaboration for a more conducive learning environment.

"The monotony of life, while overly dramatic at times, became more and more prominent as the months went on, while my social skills steadily declined" (Dominique).

"The need for physical interaction is necessary for our learning. This deficiency by other team members in the online breakout groups may be a demotivating factor rather than constructive for students who are all ready for a productive discussion" (Charlie).

"The inability to have human interaction... – an unconducive environment – led to a decreased capacity to learn from classmates" (Ashley).

Lockdowns and mandatory physical distancing across countries create feelings of social isolation and separation during the pandemic. Docherty et al. (2018) identify that students' engagement and social relationships between peers and lecturers are essential for academic success. However, the autoethnographies identify that it is challenging to build social connections and promote continued engagement when learning online, especially with the lack of contact. With limited interactions and an increased time spent online, students become less emotionally engaged, and their sense of belonging notably decreases, impeding their learning and increasing feelings of isolation (Hill & Fitzgerald, 2020; Kahu et al., 2019). In contrast, the research results of Knox et al. (2020) demonstrate that by supporting student learning with authentic leadership in the classroom, student engagement, belonging and overall well-being are fostered, thus achieving growth in students. Our student ethnographies express awareness of the detrimental effects of social isolation and decreased motivation during the pandemic with a trend of concerns identifying consideration of online

pedagogy and its impact on our overall well-being. The students' autoethnographies reported behaviour akin to heightened situational self-awareness (Govern & Marsh, 2001) expressing knowledge of themselves and their future in the post-pandemic era. The students acknowledge that a crucial factor for academic success amidst the disruptions was their ability to consistently self-regulate:

"I have since been more productive and proactive with my learning... This encourages students to proactively search for other solutions in the learning process, thus allowing proactiveness in learning" (Ashley).

"I became more in touch with what worked for me regarding learning styles and time management. The effect of not having to leave the house for work or study provided more time to think and adapt" (Jaidyn).

"I could devote my quiet days at home to work and study. I saw this as a luxury" (Dominique).

Student perceptions of online learning in the data generally reflects advantageous opportunities, such as the increased flexibility in study time and learning methods. Yet, progression to an online learning environment is reliant on student attitudes and capacity for self-regulation, and for some, it may have been acquired through self-judgment, self-observation, and self-reactions (Wang et al., 2013). According to Broadbent and Poon (2015), four significant self-regulated learning strategies encourage online academic success: time management, critical thinking, effort regulation and metacognition. Their study proposes that online learning is successful when students adequately plan and use their time appropriately, are conscious of their learning behaviour, reflect and are critical with their learning and persevere through the learning process.

In the autoethnographic reflections, self-regulatory behaviour has enabled students to persist in education and engage in proactive learning throughout the disruptions of COVID-19, thus, successfully maximising learning. Students also progress towards self-efficacy in learning and report growth and increased awareness through self-reflection:

"...I had changed my opinion about online learning after witnessing its effectiveness. The acceptance of online learning is my new mentality, which I never expected of myself" (Charlie).

"COVID-19 has also given me insights on the importance of advanced technologies and its necessity for the future workforce" (Ashley).

"When I resumed attending the gym after lockdown, rather than at home, I was more in touch with what worked for my body. The same stands true for my mind" (Jaidyn).

For the students, awareness comprises facets of cognitive, affective, and behavioural concepts supporting their sensemaking during learning. The impacts of the pandemic initiate opportunities for some students to achieve personal growth and enhanced self-awareness through a form of authentic intervention, despite their ongoing learning challenges. Further research should consider investigating the relationship between the psychological resilience and consequences of student perceptions during COVID-19.

Socialising

The autoethnographies identify an important relationship between student learning journeys, potential learning experiences, and altered social dynamics with others. The effects of transitioning from a traditionally physical practice to an online platform affects student socialisation with three

key factors emerging: student engagement, self-efficacy, and growth. For the reporting students, socialisation means to both understand and learn social norms within the classroom setting, as well as the actual social ties formed through peer-to-peer interactions. Social interaction, or lack thereof, can influence a student's cognitive performance (e.g. concentration, effort in activity) and ability to enjoy or derive interest from activities or tasks (Strati et al., 2017). Socialisation within higher education is discussed with respect to psychological and socio-cultural and holistic factors (Kahu, 2011). The initial shift from traditional to online learning platforms is initially perceived as a generally unfavourable form of learning. The ethnographies exhibit concerns of confusion, dissatisfaction and disruption:

“Working on something for so long, only then to be told that’s not how the world works now, builds the foundations for a confusing time” (Dominique).
“The technological disruptions during remote working and online learning also prove to be a massive challenge for me. In situations of bad weather or location, my work performance would impede significantly due to decreased internet connectivity and/or defective equipment” (Ashley).

Predictors of student engagement include the perception of challenges and social networking (Strati et al., 2017). The autoethnographies demonstrate a lack of social student experience hindering the students' initial ability to engage effectively with online learning opportunities:

“Students hidden behind cameras would be uncooperative in discussions and ignore the efforts of other classmates. Such an uncondusive environment led to decreased capacity to learn collectively” (Ashley).

The physicality of traditional learning provides benefits to the perceived student experience. The recognition of the value of accountability mechanisms present in studying within physical proximity of peers and teachers was a commonality throughout the autoethnographic source documents. This is not to say students merely require a friend in their lecture hall, rather positive social interactions create opportunities to build a collective student culture. The development of authentic relationships, for example, fosters the capacity for factors key to personal growth and success. There are varying tendencies in identifying with learning institutions; a student learning experience absent of factors such as authentic and interpersonal relationships leads to demotivation and disengagement. Authentic relationships within the higher education context results in gains with psychological well-being, belonging, and engagement. The autoethnographies highlight the role that social interaction has with student-level belonging and ability to engage. The uncertainty of the online learning model stood to disrupt socialisation and was met with an initial distaste for change:

“I accepted the change to online learning, but with some concern, worrying that online learning could have an impact on the effectiveness of my studies” (Charlie).
“Once it was announced that classes were to be converted to online lessons, I experienced feelings of anxiousness” (Ashley).

The autoethnographies demonstrate a shift in the negative student narrative once students became accustomed to environments absent of 'normal' social stimulation. The literature states that upon student's acceptance of online learning environments, not all students demonstrated early adoption behaviours (Jacobsen, 2000; Zayim et al., 2006). Over time, as early adopters tested and responded to perceived obstacles for student success, the beta-testing phase of learning and teaching subsided. These advantages range from studying in the comfort of one's own home and associated freedoms, to increased flexibility in learning resulting in more productive and proactive learning. It appears

that a student's propensity for self-efficacy could be a determinative factor in engagement with online studies.

“The benefits of online learning from the COVID-19 lockdown result in saving time and money from transportation to-and-fro school and enjoying the exclusive home dining experience while participating in the lesson” (Charlie).

“I have since been more productive and proactive with my learning... with online learning, the facilitators are only present during the live broadcast sessions and via emails, making the process of attaining answers slower” (Ashley).

As isolation continued, the negative consequences initially associated with a lack of socialisation are reduced. The students expressed a desire to seek opportunity within their circumstances and utilised their extra time for further study. Others sought endeavours outside of study such as physical exercise. Emotionally reflexive students that face obstacles and change within their student experience, such as a change to socialising norms, are more likely to pursue alternatives that promote positive self-growth (Pitzer & Skinner, 2017). Across the autoethnographies, the lack of external social influences combined with broader time frames for activity and learning fostered this behaviour:

“I used to be sceptical in engaging in online courses, but COVID-19 has opened up opportunities with full online learning. I found myself exploring online courses and platforms to enrich myself with knowledge from different industries. Something I never would have done, if not for the pandemic” (Ashley).

“I became closer to an understanding of how I learn, opposed to how the University has taught me to learn” (Jaidyn).

Students reflected on their areas of interest during their adjustment from traditional to online learning. Rather than perceiving the challenge as insurmountable, students demonstrated a willingness to recreate their old environment to suit newly identified wants.

Environment

The life of a university student encapsulates a variety of unique social interactions, experiences, and opportunities. University-built environments are commonly, like the historical role of a city library, considered the physical hub of connection (Byers et al., 2018). The campus experience is now digitalised, students can access the learning and teaching elements of higher education from their homes, hotel rooms, and local cafes (Sahu, 2020). So what happens when the student experience is forced fully online by a global pandemic? The student experience has changed dramatically for many, some students like Charlie had yet to take an online class prior to the pandemic. We posit that the built environment constructed around the student experience affects the interplay of a student's normal perceived 'university life'. The student autoethnographies highlighted students felt three key shifts (pressure, context, and interactions) relating to their built environments.

“The distractions at home such as pets and the ability to use the internet may also impede learning, while in school we may have the pressure of our peers or the lecturers to remind us of our distractions” (Charlie).

“Four years of attending physical lectures and tutorials created normality, predictability and comfortability. Quite suddenly, this paradigm changed” (Jaidyn).

“Apart from a daily walk and possibly a trip to the groceries I no longer got the social interactions I had taken for granted when they were my everyday experience” (Dominique).

While some universities underwent a seamless transition, many face on-going obstacles in fulfilling the student experience online (Crawford et al., 2020a). While online content has benefits, poor online delivery risks significant disengagement due to its inherent lack of physical accountability (Soffer & Nachmias, 2018). Lecturers need not be more charming, rather the university experience itself must be adapted to screens. This may include a reconceptualisation of the recorded lecture. For students who have attended a lecture in class, a recording of that engagement may provide important reflectivity. However, for students who do not engage in such learning, the appeal is lessened as students develop behavioural patterns that promote engagement with familiarity (Kahn et al., 2017). Failure to consider familiarity and representation risks disengagement with the student experience as demonstrated in the student reflection:

“I saw friends and family struggling with the weight of their situation, deteriorating in both mental and physical help from a lack of differing stimuli, social interaction and general feelings of non-accomplishment” (Dominique).

Extracurricular student activities also require reconceptualising in a digital environment. The function of student societies and fitness classes by university gyms require adaptation. Universities have been forced to adapt incredibly nuanced aspects of everyday life. While issues of socialisation and accountability affect how students interact with this transition, universities are requiring innovation and careful consideration to foster positive engagement with the student experience (Crawford et al., 2020a). Open days now operate entirely through virtual reality technology in some instances, emulating social media and popular video games to increase appeal and inclusion (Swinburne University, 2020; University of Tasmania, 2020). The environment students experience their learning, social interactions, and ‘university life’ now exists solely on the internet, and is a platform which students have had to actively adapt to.

The relationship between students and the environment is an interaction that is critical to the themes of this discussion, although the impact of this relationship extends much more broadly than the addressed themes. Issues of student well-being, motivation, self-image and success are all moderated by one’s contextual surroundings. University campuses have begun trialling ‘greenspaces’ in the 21st century, with especially positive results in urban areas. Greenspaces are dedicated places of nature, typically in places like cities that are dominated by concrete. Central Park in New York City, for example, provides residents with the opportunity to interact with nature in the centre of one of the world’s largest metropolises. The results of such an endeavour in terms of university students demonstrates significantly higher rates of both physical and emotional well-being, which can foster student motivation, accountability and success (Mcfarland et al., 2010; Speake et al., 2013; Browning & Locke, 2020). While studies are starting to demonstrate the effectiveness of something as simple as physical activity in student productivity and success (e.g. Hammami et al., 2020), access to shared greenspaces have been restricted during the pandemic. As restrictions lift in states that actively address the pandemic and leaders address the dichotomy of online presence and physical presence, we propose that the nature of these environments should be addressed in the process of rebuilding.

Practical implications

This research created a glance at student voices during COVID-19, and in some areas confirmed existing understandings and conflicted with others. For higher education institutions, the role of developing student self-efficacy was discussed with greater impetus than conventional discipline knowledge. The students highlighted that they were both prepared and unprepared for the rapid adaptation required by their learning circumstances during the pandemic. To enable student-centric

institutional responses, greater emphasis on facilitating the soft skills they recognise as important to their own coping mechanisms (e.g. self-regulatory behaviours) should be considered.

Heightened states of emotional distress and poor psychological well-being are cause for immediate concern, although perhaps not unknown anecdotally. Students in contemporary higher education have higher than average rates of poor psychological well-being (Orygen, 2017; Reavley et al., 2012). If student success is paramount to the perceived success of institutions, then so too is the need to engage in activities and support structures that can support and enable positive well-being and student flourishing. In a randomised control trial, Barry and colleagues (2019) identify that mindfulness practice can increase student psychological capital and reduce rates of depression. Consistent with the students in this study, Kahu and Nelson (2018) also theorise that 'life load' also affects student well-being, despite that it is out of the control of the institution. Thus, student success may be enabled by providing support mechanisms for factors outside of the curriculum, such as budgeting, psychological support, and life skills modules.

For students, there was an interplay between their built environment and their ability to form meaningful connections with their peers and teachers. Not only this, but students felt more accountable for – and motivation thereof – their performance when they had regular opportunities to engage with their peers. In an online community, this can be more difficult (Butler-Henderson & Crawford, 2020). Effective interaction online requires a shared acceptance of the norms to be enacted in the digital classroom. The student reflections recognised the role of collectively turning their videos and microphones on, despite the potential for inequity, to foster their sense of community. A key implication of this study was recognition that a single point of communication was not sufficient to foster community. It was a synthesis of multiple sources (e.g. asynchronous discussion boards, synchronous Zoom-style workshops, and Padlet post-it boards) that created a collective among the students. For each of these, facilitated and methodologically sound implementation was critical to their success (e.g. Douglas et al., 2020). These foundations create opportunities for students to engage in meaningful informal communication (e.g. social media messaging groups and alternate Zoom or FaceTime meetings). The question for each educator should surround understanding what, within their specific cohort, can create a meaningful sense of belonging for their online students.

Finally, there is a need to better understand the role of the greenspaces on campus to support informal peer connections between students. Students recognised the grand gesture associated with their built learning environment (e.g. lecture theatres) as well as those informal spaces used for sense-making. In online environments, access to unfacilitated and informal spaces is equally as critical, and should be encouraged. This may be a drop-in space for students to dial-in and out of, at will; or providing students the ability to call each other on institutionally recognised software (e.g. Zoom, Microsoft Teams, or Skype).

Limitations

A limitation of the autoethnographic method is the small sample size. The nature of an autoethnography entails rich analysis, reflexivity, and collection of data, which can limit sample size (Rastogi, 2019). Moreover, this research only examines four students' perception. While the method of the research prevents us from generalising its results to any larger population, it does provide a rationale for potential transferability. In the development of the method, there were deliberate decisions to minimise early groupthink through independent reflection before synthesising. There was also the view to enable students from two different countries (Australia and Singapore) to collaborate, although this created a limitation insofar as the students were from the same institution

in their respective countries. Consequently, the findings are not generalisable across both cultures without context. Their exploration from different cultures and jurisdictions increases the rigour of the study (Rastogi, 2019).

Another limitation of this research is the subjectivity of the autoethnographies. Each individual has a unique cultural experience based on their ethnicity, nationality, gender, occupation, and could therefore lead to variations in the interpretations among researchers. As the research was analysed through the lenses of the researchers, the categorisation and interpretation of the ethnographies may be biased to the researchers, henceforth, making the research less objective and unmeasurable (Queirós et al., 2017). The limitations of the study were naturally accepted in the view to create space for student voice, in a sea of higher education COVID-19 research lacking genuine student voice.

Conclusion

We began with an overview of the literature on COVID-19 in higher education that uncovered a dearth of student-based literature. This provided a context for the students-as-partners literature that provided the theoretical foundation for the structuring of our team and the subsequent write-up. Next, we provided an overview of the collective autoethnography conducted, and documented the assumptions and practices adopted. The findings from the collective thematic analysis were presented in the discussion, followed by the practical implications of these findings. Our synthesis revealed students' perspectives were impacted by four key areas; engagement, awareness, socialising and environment. Each element plays a critical role in analysing the student learning experience within higher education during a pandemic. These themes of the student experience demonstrate the need for further focus in the effectiveness of online learning, student autonomy and self-regulation, the impact of social connections (or lack thereof) and the contextual space in which these variables are present. The findings within this study demonstrate the value behind student insight into institutional functionality and the effectiveness of higher education's ability to transition to online platforms while maintaining value within the student learning experience. As future research emerges, focus should be directed toward an understanding of student perspectives.

References

- Ang H. (2020b, April 3). Local universities cancel in-person examinations, move assessments online. *Channel News Asia*.
<<https://www.channelnewsasia.com/news/singapore/covid-19-universities-ntu-smu-cancel-in-person-examinations-12607906>>. Accessed 7 September 2020.
- Babones, S. (2019). The China student boom and the risks it poses to Australian universities. *Centre for Independent Studies*.
<<https://www.cis.org.au/app/uploads/2019/08/ap5.pdf>> Accessed 7 September 2020.
- Barry, K., Woods, M., Martin, A., Stirling, C., & Warnecke, E. (2019). A randomized controlled trial of the effects of mindfulness practice on doctoral candidate psychological status. *Journal of American College Health*, 67(4), 299-307.
- Beasy, K., Emery, S., Dyer, L., Coleman, B., Bywaters, D., Garrad, T., ... & Jahangiri, S. (2020). Writing together to foster wellbeing: Doctoral writing groups as spaces of wellbeing. *Higher Education Research & Development*, Advanced Online Publication.
- Billett, P., & Martin, D. (2018). Engaging students in co-creation of sociological knowledge and curriculum design as a form of deep engagement. *Journal of University Teaching and Learning Practice*, 15(5), 1-13.
- Bonk, R., Kefalaki, M., Rudolph, J., Diamantidaki, F., Rekar Muno, C., Karanicolas, S., Kontoleon, P. & Pogner, K.-H. (2020). Pedagogy in the time of pandemic: From localisation to globalisation. *Journal of Education Innovation and Communication*, 2(S11), 17-64.
- Butler-Henderson, K., & Crawford, J. (2020). A systematic review of online examinations: A pedagogical innovation for scalable authentication and integrity. *Computers & Education*, Advanced online publication.
<https://doi.org/10.1016/j.compedu.2020.104024>
- Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K. & Sahu, K. M. (2020a). COVID-19 in Higher Education Literature Database (CHELD V1). *Institute of Research Innovation*. <https://doi.org/10.37074/jalt.2020.3.2.11d>. Accessed 7 September 2020.
- Butler-Henderson, K., Crawford, J., Rudolph, J., Lalani, K., & Sabu, K. M. (2020b). 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), Advanced Online Publication.
- Broadbent, J., & Poon, W. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, 27, 1-13.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Browning, M., & Locke, D. (2020). The greenspace-academic performance link varies by remote sensing measure and urbanicity around Maryland public schools. *Landscape and Urban Planning*, 195, 1-10.
- Byers, T., Mahat, M., Liu, K., Knock, A., & Imms, W. (2018). Systematic review of the effects of learning environments on student learning outcomes. *Innovative Learning Environments and Teachers Change*. University of Melbourne.
- Cleland, J., Tan, E., Tham, K., & Low-Beer, N. (2020). How Covid-19 opened up questions of sociomateriality in healthcare education. *Advances in Health Sciences Education*, 1, 1-4

- Cole, A., Lennon, L., & Weber, N. (2019). Student perceptions of online active learning practices and online learning climate predict online course engagement. *Interactive Learning Environments*, 1-15.
- Compton, S., Sarraf-Yazdi, S., Rustandy, F., & Krishna, L. (2020). Medical students' preference for returning to the clinical setting during the COVID-19 pandemic. *Medical Education*. Advanced Online Publication, <https://doi.org/10.1111/medu.14268>
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. & Lam, S. (2020a). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Teaching and Learning*, 3(1), 9-28.
- Crawford, J., Butler-Henderson, K., Lalani, K., Sabu, K.M. & Rudolph, J. (2020b). The first six months of COVID-19 higher education research: A systematic review. *Unpublished manuscript*.
- Crichton, S., & Kinash, S. (2003). Virtual ethnography: Interactive interviewing online as method. *Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie*, 29(2).
- Chang, H., Ngunjiri, F., & Hernandez, K. (2013). *Collaborative autoethnography*. Walnut Creek, CA: Left Coast Press.
- Davies, A. (2020, 25 July). Future shock: how Australia's universities are changing after the coronavirus cataclysm. *The Guardian*, <<https://www.theguardian.com/australia-news/2020/jul/26/future-shock-how-australias-universities-are-changing-after-the-coronavirus-cataclysm>> Accessed 7 September 2020.
- Delamont, S. (2009). The only honest thing: Autoethnography, reflexivity and small crises in fieldwork. *Ethnography and Education*, 4, 51–63. doi: 10.1080/17457820802703507
- Docherty, A., Warkentin, P., Borgen, J., Garthe, K., Fischer, K., & Najjar, R. (2018). Enhancing student engagement: Innovative strategies for intentional learning. *Journal of Professional Nursing*, 34(6), 470-474.
- Doige, S. & Doyle, J. (2020). Australian universities in the age of Covid. Editorial. *Educational Philosophy and Theory*. Advanced Online Publication. <https://doi.org/10.1080/00131857.2020.1804343>.
- Douglas, T., James, A., Earwaker, L., Mather, C., & Murray, S. (2020). Online discussion boards: Improving practice and student engagement by harnessing facilitator perceptions. *Journal of University Teaching & Learning Practice*, 17(3), 1-14.
- Feast, V., & Bretag, T. (2005). Responding to crises in transnational education: new challenges for higher education. *Higher Education Research & Development*, 24(1), 63-78.
- Fung, F., & Lam, Y. (2020). How COVID-19 disrupted our “flipped” freshman organic chemistry course: Insights gained from Singapore. *Journal of Chemical Education*. Advanced Online Publication.
- Goldberg, L., Carr, A., Canty, A., Klekociuk, S., Ward, D., Landowski, L., ... & Vickers, J. (2015, September). Making neuroscience important and relevant: Online learning in an innovative bachelor of dementia care program. In *Second International Conference on E-Learning, E-Education, and Online Training* (pp. 84-91). Springer, Cham.
- Govern, J., & Marsch, L. (2001). Development and validation of the situational self-awareness scale. *Consciousness and Cognition*, 10(3), 366-378.

- Guyotte, K., & Sochacka, N. (2016). Is this research? Productive tensions in living the (collaborative) autoethnographic process. *International Journal of Qualitative Methods*, 15(1), 1–11. doi: 10.1177/1609406916631758
- Healey, M., Flint, A., & Harrington, K. (2016). Students as partners: Reflections on a conceptual model. *Teaching & Learning Inquiry*, 4(2), 1-13.
- Healey, M. (2014). Students as partners in learning and teaching in higher education. In *Workshop Presented at University College Cork*, 12(1), 15.
- Healey, M., Flint, A., & Harrington, K. (2014). *Engagement through partnership: Students as partners in learning and teaching in higher education* (pp. 1–76). York, UK: Higher Education Academy.
- Herrington, J., Reeves, T., & Oliver, R. (2007). Immersive learning technologies: Realism and online authentic learning. *Journal of Computing in Higher Education*, 19(1), 80-99.
- Hill, K., & Fitzgerald, R. (2020). Student perspectives of the impact of COVID-19 on learning. *All Ireland Journal of Higher Education*, 12(2), 1-9.
- Holden, O., Kuhlmeier, V., & Norris, M. (2020). Academic integrity in online testing: A research review. *PsyArXiv Preprint* <https://doi.org/10.31234/osf.io/rjk7g>
- Hou, A., Hill, C., Chen, K., & Tsai, S. (2018). A comparative study of international branch campuses in Malaysia, Singapore, China, and South Korea: Regulation, governance, and quality assurance. *Asia Pacific Education Review*, 19(4), 543-555.
- Jackson, C. (2020). Post-pandemic, government needs to reinvest in nation's research. *The Australian*. 2 June 2020. <<https://www.theaustralian.com.au/higher-education/postpandemic-government-needs-to-reinvest-in-nations-research/news-story/966fdc2d42eb11863ecdeb7ab8e4493f>. Accessed 7 September 2020.
- Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. *Journal of Advanced Nursing*, 60(1), 1-9.
- Jacob, O., Abigeal, I., & Lydia, A. (2020). Impact of COVID-19 on the higher institutions development in Nigeria. *Electronic Research Journal of Social Sciences and Humanities*, 2, 126-135.
- Jacobsen, D. (2000). Examining technology adoption patterns by faculty in higher education. *Proceedings of ACEC2000: Learning Technologies, Teaching and the Future of Schools* (pp. 6-9). Melbourne, Australia.
- Kahn, P., Everington, L., Kelm, K., Reid, I., & Watkins, F. (2017). Understanding student engagement in online learning environments: The role of reflexivity. *Educational Technology Research and Development*, 65(1), 203-218.
- Kahu, E. (2013). Framing student engagement in higher education. *Studies in Higher Education*, 38(5), 758-773.
- Kahu, E., & Nelson, K. (2018). Student engagement in the educational interface: understanding the mechanisms of student success. *Higher Education Research & Development*, 37(1), 58-71.
- Kahu, E., Picton, C., & Nelson, K. (2019). Pathways to engagement: a longitudinal study of the first-year student experience in the educational interface. *Higher Education*, 79, 657-673.
- Kemp, N. (2020). University students' perceived effort and learning in face-to-face and online classes. *Journal of Applied Learning and Teaching*, 3(Sp. Iss. 1), 69-77.

- Koetsier, J. (2020, May 23). 25 Million students on COVID-19: 'Depression, anxiety and loneliness' hitting peak levels. *Forbes*.
<<https://www.forbes.com/sites/johnkoetsier/2020/05/23/25-million-students-on-covid-19-depression-anxiety-and-loneliness-hitting-peak-levels/#26046c5477b8>>
Accessed 7 September 2020.
- Knox, M., Crawford, J., Kelder, J-A., Carr, A., & Hawkins, C. (2020). Evaluating leadership, wellbeing, engagement, and belonging across units in higher education: A quantitative pilot study. *Journal of Applied Teaching and Learning*, 3(Sp. Iss. 1), 108-117.
- Lapadat, J. (2017). Ethics in autoethnography and collaborative autoethnography. *Qualitative Inquiry*, 23(8), 589–603. doi: 10.1177/1077800417704462.
- Mahmud, A. (2020). NUS, NTU students allowed to take more modules on ungraded basis to ease COVID-19 anxiety. *Channel News Asia*, 25 March 2020.
<<https://www.channelnewsasia.com/news/singapore/nus-ntu-students-ungraded-option-covid-19-anxiety-12575598>> Accessed 7 September 2020.
- Matthews, K., Dwyer, A., Hine, L., & Turner, J. (2018). Conceptions of students as partners. *Higher Education*, 76(6), 957-971.
- Matthews, K. (2017). Five propositions for genuine students as partners practice. *International Journal for Students as Partners*, 1(2).
- Marshman, I., & Larkins, F. (2020). *Modelling individual Australian universities resilience in managing overseas student revenue losses from the COVID-19 pandemic*. Melbourne, Australia: Centre for the Study of Higher Education, University of Melbourne.
- Mercer-Mapstone, L., Dvorakova, S., Matthews, K., Abbot, S., Cheng, B., Felten, P., ... & Swaim, K. (2017). A systematic literature review of students as partners in higher education. *International Journal for Students as Partners*, 1(1).
- Miles, C. A., & Fogget, K. (2016). Supporting our students to achieve academic success in the unfamiliar world of flipped and blended classrooms. *Journal of University Teaching and Learning Practice*, 13(4), 1-14.
- Morehouse, R. (2012). *Beginning interpretative inquiry: A step-by-step approach to research and evaluation*. Florence, KY: Routledge.
- Morin, A. (2011). Self-awareness part 1: Definition, measures, effects, functions, and antecedents. *Social and Personality Psychology Compass*, 5(10), 807-823.
- Neto, M. (2015). Educational motivation meets Maslow: Self-actualisation as contextual driver. *Journal of Student Engagement: Education Matters*, 5(1), 18-27.
- Orygen. (2017). *Under the radar: The mental health of Australian university students*. Parkville, Australia: Orygen.
- Owston, R., York, D., & Malhotra, T. (2019). Blended learning in large enrolment courses: Student perceptions across four different instructional models. *Australasian Journal of Educational Technology*, 35(5), 29-45.
- Pather, N., Blyth, P., Chapman, J., Dayal, M., Flack, N., Fogg, Q., ... & Morley, J. (2020). Forced disruption of anatomy education in Australia and New Zealand: An acute response to the Covid-19 pandemic. *Anatomical Sciences Education*, 13(3), 284-300.
- Pitzer, J., & Skinner, E. (2017). Predictors of changes in students' motivational resilience over the school year: The roles of teacher support, self-appraisals, and emotional reactivity. *International Journal of Behavioral Development*, 41(1), 15-29.
- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*, 3(9), 369-387.

- Rapid Research Information Forum. (2020). *Impact of the pandemic on Australia's research workforce*. <<https://www.science.org.au/sites/default/files/rrif-covid19-research-workforce.pdf>> Accessed 7 September 2020.
- Reavley, N., McCann, T., & Jorm, A. (2012). Mental health literacy in higher education students. *Early Intervention in Psychiatry*, 6(1), 45-52.
- 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), 1-6.
- Sam, C. (2017). *Private education in Singapore. Contemporary issues and challenges*. Singapore: World Scientific.
- Savage, J., & Healy, J. (2019). Creative Teaching Design in STEM: Using Graduate Learning Outcomes to Distribute Students' Existing Knowledge in First-Year Biology Practical Work Groups. *Journal of University Teaching and Learning Practice*, 16(3), 1-13.
- Schuiteman, S., Ibrahim, N.I., Hammond, A., Kruger, L., Mangrulkar, R.S., & Daniel, M. (2020, June 9). The role of medical student government in responding to COVID-19. *Academic Medicine*. Advanced Online Publication. <https://doi.org/10.1097/ACM.0000000000003542>
- Smith, J. (2008). Interpretive inquiry. In L. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (p. 77). Thousand Oaks, CA: Sage.
- Soffer, T., & Nachmias, R. (2018). Effectiveness of learning in online academic courses compared with face-to-face courses in higher education. *Journal of Computer Assisted Learning*, 34(5), 534-543.
- Speake, J., Edmondson, S., & Nawaz, H. (2013). Everyday encounters with nature: Students' perceptions and use of university campus green spaces. *Journal of Studies & Research in Human Geography*, 7(1), 21-31.
- Spante, M., Hashemi, S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education*, 5(1), 1-21.
- Strati, A., Schmidt, J., & Maier, K. (2017). Perceived challenge, teacher support, and teacher obstruction as predictors of student engagement. *Journal of Educational Psychology*, 109(1), 131-147.
- Swinburne University. (2020). *Swinburne's Open Day Goes Pixel*. Swinburne University of Technology. <<https://www.swinburne.edu.au/news/2020/07/swinburne-open-day-goes-pixel/#:~:text=This%20August%2C%20Swinburne%20University%20of,prospective%20students%2C%20anytime%20and%20anywhere.>> Accessed 7 September 2020.
- Tareen, H., & Haand, M. (2020). A case study of UiTM post-graduate students' perceptions on online learning: Benefits & challenges. *International Journal of Advanced Research and Publications*, 4(6), 86-94.
- The Economist*. (2020, 8 August). Uncanny University. Covid-19 could push some universities over the brink. <<https://www.economist.com/briefing/2020/08/08/covid-19-could-push-some-universities-over-the-brink>> Accessed 7 September 2020.
- Toquero, C. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research*, 5(4), Advanced Online Publication.
- University of Tasmania. (2020). *Virtual Open Day*. University of Tasmania. <<https://www.utas.edu.au/openday>>. Accessed 7 September 2020.

- Wang, C., Shannon, D., & Ross, M. (2013). Students' characteristics, self-regulated learning, technology self-efficacy, and course outcomes in online learning. *Distance Education, 34*(3), 302-323.
- Wisker, G. (2018). Frameworks and Freedoms: Supervising Research Learning and the Undergraduate Dissertation. *Journal of University Teaching and Learning Practice, 15*(4), 1-14.
- Zayim, N., Yildirim, S., & Saka, O. (2006). Technology adoption of medical faculty in teaching: Differentiating factors in adopter categories. *Journal of Educational Technology & Society, 9*(2), 213-222.