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Global challenges: South African and Australian students' experiences of emergency remote teaching

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Global challenges: South African and Australian students' experiences of emergency remote teaching

Abstract

The COVID-19 pandemic forced universities worldwide to move their teaching online within an unprecedentedly short timeframe. Whilst the move online learning has increased the reach of tertiary educational delivery it has also raised significant issues of equity, accessibility and student engagement. This includes concerns around access to technology and reliable internet connectivity, academic and digital literacy, and other factors such as mental health and work-life balance. This paper examines two studies of student engagement with online learning during 2020 when the pandemic began. One study was conducted in South Africa the other in a small regional university in South-Eastern Australia. A mixed method approach was used in both studies and then student responses were analysed using the student engagement framework presented by Kahu and Nelson (2018). A key focus in this analysis is the critical importance of the educational interface and shared mutually formative experience of learning between students and universities. Findings show that despite the two different contexts, student concerns around digital literacy and engagement in an online learning environment share many similarities.

Practitioner Notes

1. Emergency remote teaching has created challenges for students both in digital literacy skills and access to technology.
2. Strengths highlighted by students could be leveraged to enhance student outcomes.
3. Students noted that a sense of belonging was important to their learning experience.
4. Holistic support is required to ensure that students' needs are met during emergency remote teaching.
5. Challenges with emergency remote teaching are global, and institutions should work together to address them.

Keywords

Digital literacy, Online instruction during crisis, Engagement, Student Experience

Authors

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Introduction

The 21st-century higher education system has seen radical transformation and massification. Significantly, the sector has grown to encompass increasing numbers of diverse students attending Higher Education Institutions (HEIs) in search of qualifications. With this comes the need for a variety of skills and literacies to meet the demands of a technologically driven, ever-changing modern workforce; graduate attributes such as critical thinking, problem-solving, communication skills and digital literacies are in high demand. This article presents an analysis of digital literacy challenges and marginalisation issues faced by students at two universities in Australia and South Africa. Critical to our analysis is our holistic approach to the student experience in education, as defined by Kahu and Nelson (2018), where it is recognised ‘that individual student engagement occurs dynamically within an educational interface at the intersection of the student and their characteristics and background, and the institution and its practices’ (p. 2). Likewise, research by Kara (2021) indicates that ‘student engagement is not a product of any single factor in the educational framework but is rather a holistic experience where student learning experience ...is the consequence of the complex interactions between them and the sociocultural context in which these interactions occur’ (p. 237).

Literature review

In exploring these diverse factors, the International Association of Universities (2008) identifies “socio-economic status, race, ethnicity, religion, age, [dis]ability or location” (p. 1) as student groups which may be disadvantaged or marginalised. However, different nations and organisations may have policies targeting different groups. In Australia, six equity groups are targeted in policy: Indigenous Australians, students with a disability, low Socio-Economic Status (SES), Non-English-Speaking Background, women in some study areas, and students from regional and remote areas (Bradley et al., 2008). For the latter Australian equity group, a remoteness scale (the Australian Statistical Geography Standard [ASGS] Remoteness Structure) is employed to classify the areas of the country based on remoteness (Australian Bureau of Statistics, 2016). There are five classes of remoteness with varying levels of the population residing within each. These are Major Cities (72%), Inner Regional (18%), Outer Regional (8%), Remote (1.1%) and Very Remote (0.8%) (Australian Institute of Health and Welfare, 2022). Each of these underrepresented groups, otherwise known as equity groups, face unique challenges accessing, attending, and completing higher education.

The social equity or widening participation agenda in the South African landscape differs from Australia, stemming from attempts to redress the injustices of the past (Walker & Mkwanzazi, 2015). As such, the mandate of higher education is to provide access to all previously disadvantaged groups of students in terms of class, race, gender, disability, and age-group (Nnadozie et al., 2020). More recently, the White Paper (Department of Higher Education and Training, 2013, p. xiv) mentions that higher education institutions must focus on improving the success of groups whose “race, gender or disability had previously disadvantaged them”. Important to note is that, unlike many nations, ethnically marginalised groups are in the majority in South Africa. The authors chose to use the term ‘marginalised’ to describe students from all the groups noted above as this term avoids placing an onus on the students for their disadvantage.

Although the COVID-19 pandemic increased inequity in higher education, it can also be a catalyst for positive change (Peters et al., 2020). One of the major global impacts on higher education was

the emergency move to remote teaching (ERT) (Viner et al., 2020). However, this was not as simple as taking face-to-face material and uploading it to a Learning Management System (LMS) for students to access online. Indeed, there is a significant difference between planned and intentional online or blended delivery and ERT (Hodges et al., 2020; Peters et al., 2020).

The Australian response to the pandemic came with “varied effectiveness” (Crawford et al., 2020, p. 10); in terms of the Australian University in this study, the response was dominated by a rapid shift to online learning. Similarly, the South African response was to first halt face-to-face teaching and learning in the form of an extended recess from 18 March to 15 April 2020, providing institutions with a short amount of planning time (Pather & Booie, 2020; Mpungose, 2020).

The sudden move to ERT was not without its challenges in both contexts, however. The shift revealed significant issues of access, student engagement and retention, the growing digital divide caused by infrastructure issues, and a lack of access to resources and appropriate media devices. The digital literacy of many students and staff was a significant concern (Hodges et al., 2020; Mpungose, 2020; Crawford et al., 2020; Department of Higher Education and Training, 2020), and this drew public and administrative attention in the higher education system (Anastasios, 2020).

As the use of digital learning technologies has increased globally, so has research on the online learning environment. This includes its impact on marginalised students, concerns over digital literacy, which links directly to student success (McLoud & Torres, 2020), and the digital divide regarding access and familiarity with technology (Bharuthram & Kies, 2013; Lembani et al., 2020; McLoud & Torres, 2020). The divide is closely linked to issues of social class and marginalisation; it is a division between the *haves*’ and *have-nots* regarding access to and use of information technology (Lembani et al., 2020). This digital divide is witnessed globally but is more pronounced in developing nations such as South Africa, where many students entering higher education have not previously engaged with computers, the internet, or e-mail (Kajee & Balfour, 2011). The digital divide is therefore strongly linked to digital literacy, student engagement and success (Lembani et al., 2020; Radovanović, 2013).

It was initially believed that online learning would widen participation, especially among regional and remote students but, as Lembani et al. (2019) highlight, there is a tension because online education can both widen participation and limit access. These issues, transition to university, access to the online learning space, and digital literacy will be the foci of this paper. Our theoretical framework is the Student Engagement Framework (SEF) of Kahu and Nelson (2018) who argue that transition, retention and success are innately organic processes; ongoing in the same way that a student’s sense of belonging and identity formation are continually changing. They argue that the educational experience is better perceived in terms of the individual student’s psycho-social space within which the institution, student experience and context interact. Central to this is educational interface, which sits between the student and the university and which creates a liminal space where student engagement and learning occurs. It is also critical that analysis of the educational experience recognises the importance of student agency. As Kahu and Nelson (2018) comment, “We understand engagement as an individual student’s psychosocial state: their behavioral, emotional and cognitive connection to their learning” (Fredricks, Blumenfeld, & Paris, 2004 as cited in Kahu & Nelson, 2018, p. 59).

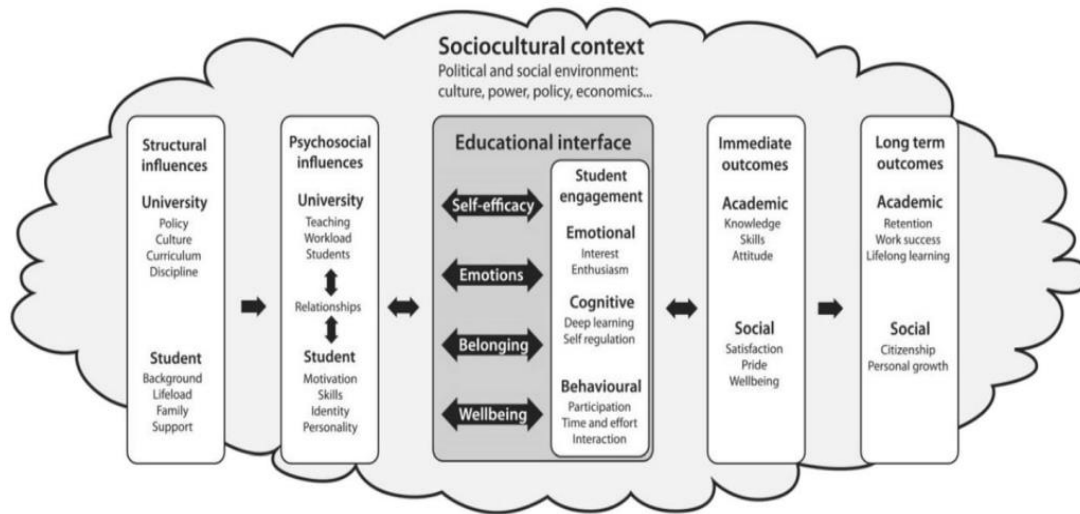


Figure 1: Student Engagement Framework (Kahu & Nelson, 2018)

For our analysis there are several advantages to using Kahu and Nelson's (2018) framework. Firstly, the educational interface offers a clear model to make sense of the complexity of student and institutional interactions and their relationship to engagement and the learning experience. Secondly, Kahu and Nelson (2018) focus on four specific aspects of psychosocial engagement: self-efficacy, emotions, belonging and wellbeing, which allow for a critical analysis of student engagement and educational success. Finally, this integrated framework gives a broader contextual representation of the performance of students in key marginalised demographics who succeed in their educational aspirations while others face greater barriers in engagement (Kahu & Nelson, 2018, p. 58).

Kahu and Nelson (2018) do not have digital literacy explicitly located within the SEF and therefore it is necessary to specify how students' ability to use (digital literacy), and access to ICT (digital divide) fit within it. Digital literacy is conceptualised as being a part of Structural Influences within the SEF, a sentiment reflected by Kara (2021) who classified digital literacy as a learner background consideration. Secondly, students' ability to access technology can impact their confidence using it and their prior level of experience with it (Zweekhorst & Maas, 2015). It could then be placed within the self-efficacy section of the Educational Interface or conceptualised as sitting within the Socio-Cultural component of the SEF. The focus of this discussion is on how the digital divide affects digital literacy as opposed to the specific socio-cultural factors that may have contributed to the divide. As such, we combine digital literacy and the digital divide and follow Kara's (2021) lead by discussing them collectively as a Structural Influence within the SEF.

Digital literacy and the digital divide

Defining digital literacy is not a straight-forward task; many definitions exist addressing multiple facets of the concept (McGuinness, & Fulton, 2019; Ng, 2012). Other terminology is often used; "ICT literacy, information technology literacy, media literacy, net literacy, online literacy, multimedia literacy and new literacies" (Ng, 2012, p. 1066). This paper will use the term "digital

literacy” in relation to an individual's ability to use Information and Communication Technology (ICT) to achieve educational outcomes. Martin (2006) suggests that digital literacy is:

“... the awareness, attitude, and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process” (p. 155).

Theoretically, a student with high levels of digital literacy should be able to adapt to new and emerging technologies quickly, easily discern new language for communication, and encounter few issues adapting to ICT in an online learning environment (Ng, 2012). Indeed, “[t]he more digitally literate the individual, the easier it is for him/her to adapt” (Ng, 2012, p. 1066). However, ERT demonstrated that many marginalised students did not have access to ICT (Larsen & Emmett, 2023) nor were they equipped with digital literacy skills.

Study aims

This article combines three studies which sought to understand the challenges faced by students during the COVID-19 pandemic in 2020. One study was conducted at a small regional university in Victoria, Australia, and the other two were conducted at a larger university in South Africa. Despite the markedly different contexts, however, significant commonalities were seen; students’ digital literacy challenges, regardless of location, are similar (Thomas, 2020), suggesting a global significance of this area. Common factors significantly impacted the student’s engagement with learning during the pandemic including SES, regional or remote location, access to technology, and digital literacy. To understand these findings, this article takes a holistic approach, which synergises the SEF from Kahu and Nelson (2018), focusing on the educational interface. The SEF provides a lens to understand the student experience as they transitioned to online learning during the pandemic and how digital literacy links directly to student success.

Method

Qualitative data were collected from respondents in both the Australian and South African cohorts. The methods of data collection are described in the following two sections.

Sample and design: Australia

The Australian institution is a small regional university with approximately 11,000 undergraduate students. Approximately 75% of these students reside in regional or remote areas. Of the 198 responses (23.8% response rate) received, a third ($n = 67$) were under 22 years old and 70.7% were female. Regional and remote students represented 66.5% ($n = 101$) of respondents and 11.4% ($n = 22$) came from non-English speaking backgrounds. Under 10% self-reported having a disability, and 32.6% were the first in their immediate family to attend university. All students were in their first year of study, either at undergraduate or postgraduate levels.

A phenomenological approach was used for an in-depth exploration into students' social concerns. The survey data was part of an evaluation of two intervention programmes deployed across all campuses of the Australian university. The instrument used to survey respondents included an open-ended question relating to student concerns broadly, which captured rich qualitative data and serves as the basis of this article.

Australian students were asked, "What were the 3 things which most concerned you about starting online study?" Student responses were inductively thematically pattern coded in NVivo 12 (Boyatzis, 1998; Miles, Huberman, & Salanda, 2014). Using one, key question allowed the researchers to receive a rich, in-depth understanding of the multiple realities and "lived experiences" of the students and the meanings they attached to the move to ERT (Doyle, Brady & Byrne, 2009). By carefully and methodically reading the responses, patterns within the data that represent key themes describing the phenomenon under study emerged, providing categories of analysis (Fereday & Muir-Cochrane, 2006; Rice & Ezzy, 1999). This approach was adopted by two researchers independently, who followed the inductive pattern coding process before results were compared. The use of one or more independent coders is a method noted to increase rigour (Barbour, 2001).

Sample and design: South Africa

The South African institution is a medium-sized research-intensive university with approximately 35,000 undergraduate students. 72% of undergraduates are between 19 and 22 years' old and are entering university for the first time; only 14% speak English as their first language, despite it being the primary language of instruction at the institution (Centre for Teaching and Learning, 2020, pp. 7 – 8).

The data for the South African study was drawn from two sources. The first source was the student evaluations from the English Academic Literacy (EAL) modules: year-long faculty-specific courses for first-year students requiring additional academic literacy and language support. 4381 students (n = 10 509) completed the questionnaire: 2950 in semester one and 1431 in semester two. This is a response rate of approximately 41.7%. The precise breakdown of students enrolled for the course was not gathered to comply with the South African Protection of Personal Information Act (POPIA), which only allows for relevant data to be collected. As with the Australian study, the South African researcher inductively coded the qualitative data into themes.

The second source was the Survey on Students' Access to and Use of Learning Materials (SAULM), a research project commissioned by the Department of Higher Education and Training (DHET) in 2020. The SAULM was administered to the entire institution in August/September 2020 and focused on students' experiences of online learning. It is possible that students from the EAL questionnaire may also have completed the SAULM. However, due to the ethical concern of anonymity and the POPIA, it is impossible to exclude the EAL students from the SAULM data or vice versa.

4800 students responded to SAULM; 82% indicated that they are the first in their family to enter university, over 40% reside in areas immediately surrounding the university campus including rural areas, 91% are undergraduate students of which 43% are in their first year of study. Finally, 77% indicated that they receive funding from the National Student Financial Aid Scheme (NSFAS). This

speaks to the socio-economic standing of many of the South African participants. Inductive thematic analysis of the SAULM data was done by the SASSE team and this study draws from their research report and qualitative analysis (Department of Higher Education and Training, 2020).

Analysis of data – Australia and South Africa

As previously mentioned, inductive thematic analysis was used for all three studies. Thematic analysis is a “varied but related group of techniques for thematically organizing and analysing textual data” (King, 2004, p. 256). It is a flexible technique and can be applied in various contexts to extract meaning from data and identify recurring patterns across a range of related data sets. The approach of Maguire and Delahunt (2017) was followed, which allows themes and subthemes to emerge as the data was gathered and analysed. Exemplary student quotes are provided below to illustrate the emerging themes. To minimise researcher bias, it was essential not to make assumptions as to what the data might reveal (Duff, 2014; Yin, 2012). To maintain researcher objectivity, the process of reflexivity advocated by Yin (2011) was used during analysis and interpretation to ensure personal values did not influence the research findings. Additionally, after the initial coding, the South African and Australian researchers swapped data for an additional external layer of coding to reinforce conclusions.

Results and discussion

We begin this discussion with student structural influences, then move to examine psychosocial influences, the educational interface and then, separately, issues around digital literacy and the digital divide (See Figure 1). From this point on, we will refer to South African students as SA students and Australian students as AS students.

Structural issues

All three studies showed the impact of external structural issues, such as work, family, and access to resources, on engagement. Positively, both the SA and AS students mentioned that they valued the freedom to study at their own pace, and the time and money saved by not travelling to campus. This sentiment aligns with Fleming and Grace (2017) who highlight how the time and financial cost of travelling to university puts additional strain on marginalised students. One SA student said, “*I saved a lot of money on travelling costs, I did not have to take off from work and I am able to put more thought into my work in my own private space*”. Other students made a clear link between the freedom to study at home and enhancing their learning: “*I’m actually learning lot more with online studies. I have a lot more time to write my lecture notes, attend classes and to do my assignments, it saves me time from travelling to on campus*” (AS student).

Regarding family, many AS and SA students noted that their home environment was un conducive to learning. Noise, distractions, chores, childcare responsibilities, and general household responsibilities resulted in disrupted study patterns. One SA student said, “*my house was also very busy and people were noisy which could make studying very difficult*”. An AS student was concerned with “*whether or not I would have enough time away from my kids to focus in large blocks*”.

Online learning and digital literacy

Overall, the themes from the three studies had strong similarities regarding online learning and digital literacy, despite the varying contexts. These shared themes and notable differences will be discussed in the following section collectively as a structural influence as noted by Kara (2021).

The SA students more strongly reported the positive aspects of online learning compared to the AS students. This included independence in learning, the freedom to choose when to engage with content, their overall improvement in digital literacy research skills and self-directed learning, and multiple opportunities for engagement. Negative aspects of online learning included a lack of devices such as laptops, inconsistent internet access, data costs, access to learning resources and an initial lack of digital literacy. The AS students also cited network and device issues (although less frequently than their SA counterparts), but were mostly concerned with time management issues, a lack of clear expectations and an overall preference for face-to-face learning.

Both student cohorts clearly reported a lack of digital literacy. Some students commented that their overall learning experience was difficult, while others found navigating the LMS difficult. Additionally, the ability to find resources online was challenging for some students who commented on a lack of consistency within the LMS, so *how* to learn online and *how* to navigate the online space became more complex.

In the SA context, many students were affected by unreliable electricity provision (rolling backouts known as ‘loadshedding’), lack of access to devices such as laptops (i.e., the digital divide), patchy network access and expensive data (Dube, 2020; Mpungose, 2020; Department of Higher Education and Training, 2020). This was especially true for rural campuses and for low SES students (Dube, 2020; Department of Higher Education and Training, 2020). Approximately 50% of lower SES students had laptops during ERT compared to around 70% of students with higher SES (Department of Higher Education and Training, 2020). This, coupled with loadshedding, was reported by many SA students as a difficulty.

Another major student concern was the threat that the digital divide posed; students feared they would miss not gaining the knowledge and skills they would otherwise be developing during their face-to-face classes. Not understanding content delivered via online platforms, an inability to ask questions and receive answers in real-time and simply being “*unsure if [they] would do well without face-to-face interactions*” (AS student) were recurring themes from the data. One AS student expressed this concern quite clearly, explaining their apprehensions surrounding online learning were driven by the possibility of “*missing vital learning experiences only gained by face-to-face/classroom learning*” (AS student). These concerns went beyond the classroom where their concern revolved around a “*lack of ability to take learning into a practical setting and learn through hands-on approaches*” (AS student). Similarly, such concerns extended to students’ post-university outcomes, with one respondent explaining that their biggest concern was “*being inexperienced when entering the workforce on completion of course*” (AS student). Bączek et al. (2021) mention this issue, highlighting that online learning as a process does not necessarily have the capacity for students to practice all relevant skills that they need.

Another frustration expressed by multiple students related to the way communication with lecturers and peers diminished in the online environment compared to face-to-face classes, despite lecturers attempts to stay in contact via email and the LMS, thereby reducing the amount of information they retained. Similarly, Serhan (2020) discovered that students struggling with diminished or reduced communication was a side effect of online learning. This was reflected in participants' comments regarding assessments, where the difficulty faced related to a *"lack of discussion time face to face with teacher, [and] feedback on assessments being written and not understood"* (AS Student).

A strong theme in the Australian sample is a preference for face-to-face learning. While some students acknowledged the shortcomings of online learning, many students referred to the fact that they are simply not used to online learning and prefer what they know. Some felt that online activities were more difficult than classroom activities due to the lack of interaction, while others identified that it simply did not suit their learning style. One student highlighted such a discrepancy, saying that as *"a visual learner it's really hard for me to learn online when the activity is just printed there for us to see"* (AS student). Another commented that online learning *"tends not to be as engaging"* and therefore less enjoyable. This sentiment is echoed by other institutions who also found that students still preferred face-to-face learning following the transition online due to COVID-19 (Adnan & Anwar, 2020; Aguilera-Hermida, 2020; Khalil et al., 2020; Nambiar, 2020). The preference for face-to-face learning in some instances was not only driven by a lack of familiarity with the online space but also the systems that host them.

A recurring theme from the data were factors, which impede students' access to online learning, but that are beyond their control. Except for loadshedding, which only impacted the SA cohort, there were many commonalities between both countries. Respondents from both groups indicated that network issues, an inability to buy data, and device appropriateness (e.g., using a mobile phone when virtual classrooms are designed for access via laptops). Loadshedding presents a significant barrier to online learning in the South African context. This is because it disrupts two different sets of infrastructures that online learning relies on: electricity and the internet. A respondent succinctly described this challenge, explaining that *"there is always load-shedding every day and every-night. If there is no electricity, I cannot access internet"* (SA student).

Responses relating to inadequate devices for learning presented a range of issues, from personal computers being old and increasingly unreliable, to students only having access to their personal smart phone and no other devices. The difficulties created by unsuitable devices are easily understood given the differences between the primary function of a smart phone and a personal computer/laptop. This point was identified by one student who simply points out that *"the screen of my phone is not big enough to view the full content"* (SA student). Irrespective of the specific issues of unsuitable devices, the difficulties these present as barriers are clear: *"Not having a good device to engage with technology is a major challenge, and also being from a disadvantaged background and environment, is a major challenge when it comes to connectivity"* (SA student).

It is important to note, however, that students were not passive in the face of these challenges; many students attempted to overcome these barriers, such as *"borrow[ing] a laptop from a neighbour"* (SA student). However, such endeavours can have extra costs. For example, one student *"[had] to travel to another place of which cost [them] money in-order to get there to get internet access"* (SA student). Even something as simple as acquiring more data becomes problematic, as for some students *"there is no way to budget for the required data usage"* (SA student). One student

commented on the “*Extremely poor-quality audio sessions at the virtual classrooms. These sessions would have been a great asset to my learning this semester had it been effective*” (AS student). Such barriers are not only inhibitors to digital literacy but exemplify the factors that contribute to the digital divide and illustrate the importance of digital inclusion in higher education. To close the digital divide and facilitate digital inclusion institutions must ensure that all student populations have access to adequate (and adequately priced) technological infrastructure (Becker et al., 2010; Jaeger et al., 2012).

Within the cognitive domain of the educational interface, two more positive themes emerged from the SA data. Firstly, some students commented that they appreciated the challenge with online learning and the space it gave them to work independently. In addition, the online space gives students opportunities to choose when to engage with the content as well as multiple chances for engagement. Students, for example, commented that it gave them “*time to think for myself*”, while others appreciated the opportunity to learn at their own pace. These findings reflect those of Kara (2021), who identified heightened digital literacy as influencing a student’s self-directed learning and motivation for learning.

Another positive from the SA data was that students’ digital literacy, research skills and self-directed learning improved. Indeed, one student commented that, “*technology makes things easier if you get to know it*”. Some students also felt a sense of self-dependence and one went as far as saying that hours spent in a lecture hall were a waste of time, whereas self-directed learning was more fruitful. Such responses suggest that students who feel confident in the online learning space did not just perceive fewer issues, but even enjoyed the experience. While such a sentiment is at odds with those described by students who encountered issues relating to digital literacy, there are findings to support it. Essentially, a student’s belief that they have knowledge and support, positively influences their use of the technology (Alghamdi, Karpinski, Lepp, & Barkley, 2020; Yakubu & Dasuki, 2019).

Psychosocial influences

Psychosocial influences, as defined by Kahu and Nelson (2018), were also represented quite strongly in the student responses from both cohorts. The SA students commented that their lecturers seemed to be more generous with assessment deadlines and extending time to complete tasks. However, this was largely due to the nature of ERT in 2020; such allowances were made to mitigate students’ issues with limited network availability, lack of devices and the cost of data. Both cohorts commented that the workload seemed to increase with the shift to the online space. One SA student described being “*overwhelmed by school material*”. Indeed, previous research has shown that the workload at university is often unexpected and underestimated by commencing students; unrealistic expectations is a more serious issue that new students must overcome to be successful (Cole, 2017). In 2020, students found that their workload from various modules coincided to an even greater extent than it would within a face-to-face context. An AS student stated that there was “*too much to do! The teachers I feel tried to help us by giving us more classes and resources, but it made the workload huge! I was studying from 8am till 11pm*”. What added to the workload was the delay in getting feedback from lecturers/tutors/facilitators when students asked questions about certain tasks. “*I can't get an instant reply if I come across a problem, I have to wait for my facilitator to check her emails and then respond*” (SA student). Student responses indicated that a lack of immediacy influences their engagement.

Although some of the SA students said they were motivated to learn online, the feedback from both cohorts indicated that self-motivation was difficult. The act of going to campus physically, seems to serve as a motivating factor in itself. One SA student stated *“I dislike online learning as a whole it just makes things hard for me, I procrastinate and end up doing tests on last minutes without even studying sometimes. With contact classes I knew I had to revisit what I learn every after class”*, while another stated that online learning *“makes me lazy I even forget that I'm still a student”*. An AS student commented *“I felt quite unmotivated at home. I am a standard student so discussing topics in person and going to Uni motivated me to complete the required tasks, but due to being at home I always just felt like I didn't have enough motivation to study.”*

This is concerning as the literature examining marginalised students shows that motivated students are more likely to be successful (Devlin & O’Shea, 2011; Pitman et al., 2016), since motivated students dedicate adequate amounts of time to tasks such as reading and assessments (Starting & Earl, 2015).

Another aspect under the psychosocial influences was that of student expectations. Students did not know what to expect with the sudden shift to remote learning and therefore what was expected of them. For example, one SA student noted *“the stress of anything can happen.”* This echoes the sentiment found in general transition literature which highlights a mismatch between student expectations and the realities of university, both social and academic (Cole, 2017; Williams & Earl, 2015). This theme presented more strongly in the AS data than in the SA data.

Educational interface

According to Kahu and Nelson (2018), the educational interface, where the student and university meet, includes three factors which should be considered when examining student engagement, and success: self-efficacy, sense of belonging, and wellbeing.

Self-efficacy can be defined as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Student responses reflected a lack of self-efficacy as they had *“less confidence about online studies”* (AS student). The literature suggests that marginalised students are likely to lack self-efficacy (Atherton, 2017) and this may explain the comment. Interestingly, students also expressed a fear that they would not leave university with the practical skills needed for employment after graduation. For example, and as referred to earlier, an AS student noted *“being inexperienced when entering the workforce on completion of course”* as a concern.

Kahu and Nelson’s (2018) approach also highlights the link between students’ feelings of belonging and academic success. While a sense of belonging is a complex phenomenon, feeling socially connected to the university, peers, and staff is central to the definition (Ahn & Davis, 2020). As such, the research shows a clear link between interaction with lecturers and a sense of belonging (Devlin & McKay, 2017).

Students from both cohorts commented on how online learning was impacting their relationships with peers and staff as well as access to support services. Many were concerned about the fact that *“some things just cannot be explained well over text”* (SA student) and that engagement with

complex information requires face-to-face interaction. These findings seem to align with those of Nnadozie et al. (2020), who recently did a study in the SA context on students' responses to written feedback via email. Although there is some existing research that emphasises the benefits of written online feedback in its promotion of meaningful learning (Nnadozie et al, 2020), many students in this research study were concerned about written interaction with lecturers, as evidenced by comments like *“Communication with facilitators was not effective”* (SA student) and *“some of the work is difficult to understand due to lack of explanation and access to the lecturer”* (SA student). Concerns listed by the AS cohort included *“not knowing who to ask questions to,”* and the *“availability of lecturers.”* The general sentiment was that *“trying to reach out for more assistance as it is easier to do so in person”*.

Students in both cohorts also showed concerns around group work and collaboration. For example, one AS student listed *“working in groups when I did not know any of the other students”* as a concern. Another AS student stated the importance of *“bouncing ideas off each other”*, which would take place more naturally in a face-to-face space. Some students viewed these difficulties from an academic perspective, focusing on how they would impact their learning outcomes (e.g., *“The facilitator is not physically present to help me when I encounter difficulties”*, SA student). However, many perceived these issues as relating to them on a personal level, commenting that online learning *“is not personal. It feels distant”*. Additionally, respondents acknowledged group learning opportunities that were lost in the online space, too, *“Missing the incidental discussions”* (AS student) that would occur in a physical classroom. Interestingly, this may not be entirely driven by the perceived inhibiting factors of online learning, with some responsibility belonging to the students themselves. For example, there were criticisms from respondents that focused on the lack of involvement from their peers, citing their *“fellow students' already lacklustre interaction getting even worse”* (AS student), which further degraded their online learning experience.

In terms of wellbeing, both cohorts expressed concern over health, specifically the exposure to blue light, worries about network access and connectivity, and social anxiety. One SA student stated *“It required a lot of screen time which is not healthy for my eyes. It also causes me to have back pain,”* while an AS student was concerned about *“Social anxiety around video and voice calls.”* However, it should be noted that many students found the independent nature of online learning beneficial especially regarding their ability to study when and where they chose. For example, students said *“I can do research on my own when I can't understand something”* (SA Student) and *“I have my own time and space to understand lessons”* (SA Student).

Practical recommendations

In reviewing the key issues raised by this study and recognising the intersectional and holistic nature of the educational experience, as discussed by Kahu and Nelson (2018) and Kara (2021), the authors have several practical recommendations to support the online learning experience.

Structural issues

In terms of structural concerns, the authors note in a similar way to Bączek et al. (2021) that both digital and academic literacies are critically important in enabling student engagement with the digital interface, LMS, and academic literacy practices, which make tertiary education possible.

Consistency in the format of LMS would aid students in this regard. Digital literacy issues are exacerbated by the lack of immediate recognition from academic staff of students' struggles. This immediacy is usually achieved by building relationships through face-to-face interaction. Related is the need to ensure students have access to appropriate equipment and internet access to participate in online activities. Where possible, institutions should ensure the establishment of sufficient computer labs on campuses, loan laptop schemes, reliable campus wifi, campus-wide generators, and financial support for LSES students through loans and bursaries specifically aimed at tech access.

Additionally, institutions should prioritise digital skills development based on students' needs. In the South African context, for example, many students require basic digital skills development, which could take the form of digital skills 'bootcamps' before the academic year commences. Students with intermediate-level digital skills could be required to complete additional training in how to navigate an institution's LMS, via online asynchronous training packages prior to the commencement of their studies. In order to do this, an institution would need to determine the level of students' digital literacy skills, which would either require the students to self-declare their levels or could be judged using a digital benchmark test administered to all new students upon enrolment.

Psychosocial influences

Before discussing students' specific concerns relating to psychosocial influences, it is important to note that teaching is part of the SEF under psychosocial influences. As such, the importance of ongoing training and support for lecturers cannot be understated. This includes ensuring that educators are competent in using ICT themselves, have high levels of self-efficacy in explicitly teaching digital literacy skills and in-depth understanding of the complex challenges facing students coupled with appropriate empathy. See Eri et al. (2021) for more suggestions regarding these points.

One of the students' primary psychosocial concerns was time management and balancing study workload with the demands of home life. Cole (2017) suggests a practical recommendation that lecturers should consider options that maximise flexibility in the delivery of, and access to, course content. Examples may include, shorter online study sessions, followed by some form of synchronous or in-person discussion groups; the use of short video lectures as supplementary materials; and additional online resources. However, the students in this study made clear that there are adverse effects when lecturers become *too* helpful, providing an overload of additional resources in the online environment. Indeed, it seems that lecturers need to be more strategic regarding online resources and consider the time commitment required of students. Lecturers should release support materials when necessary, such as when assessment dates are near, and develop a communication schedule alerting students to when information will become available. Clear communication around what is expected on a weekly basis, such as a weekly newsletter or to-do list, would also be advantageous.

To further aid time-poor students timely feedback is vital. This allows students sufficient time to make necessary changes or review key content before future assessments are due; timely feedback has been linked to student engagement in the online environment (Chakraborty & Muyia Nafukho, 2014). Additionally, it is important for staff to consider the issues of ergonomics and the need to take breaks in the virtual classroom.

There should be a focus on scaffolding learning which aligns with Vygotsky's zone of proximal development (Vygotsky, 1978). This translates into the online environment as evidenced by Ragupathi (2014), who provides useful suggestions for online scaffolded learning. This includes utilising Facebook groups or wikis and blogs as social spaces for peer learning and peer review. Other online functions should also be utilised, including Youtube videos (freely available content), which could be used as supplementary material, and Google docs as a convenient way to encourage students to engage in group work. The research shows that creating welcoming online communities is important to students and beneficial in maintaining positive learning environments (Chakraborty & Muya Nafukho, 2014; Larsen & James, 2022).

To maintain focus and student engagement, educators should explicitly link the curriculum to vocational experiences and, wherever possible, provide opportunities for hands-on experience. This not only increases motivation and self-efficacy but provides clarity of purpose to assessments and learning activities, which ultimately better prepares graduates for the world of work. Indeed, from the student data above it is clear that a lack of motivation was a stumbling block to learning in the online environment.

Educational interface

Given the critical importance of learning in a peer-supported environment, and the relationship between teaching staff and students (Ahn & Davis, 2020; Devlin & McKay, 2017; Larsen & James, 2022), it is of critical importance that students are encouraged to interact as much as possible with peers, staff, and the university as an institution. There are many practical ways that this can occur and be encouraged, including personalised email communication, social media sessions, drop-in opportunities, and online forums. Such social interaction is essential to creating a sense of belonging (Larsen & James, 2022) and positive learning environments as discussed above.

Conclusion

As discussed, the rapid transition to online teaching highlighted existing and emerging best practices related to online learning and improving digital literacy skills. Eri et al. (2021) put forward six key recommendations, all of which are useful. Perhaps most pertinent is their final piece of advice which is for lecturers to be more empathetic, "not just to the professional needs of their student, but to their emotional needs as well" (Eri et al., 2021, p. 23). It is clear from the student concerns raised in this study that ERT impacted students' engagement in holistic ways, and this study demonstrates that a holistic approach can assist in unpacking how these factors impact the overall student experience. Despite the commonalities between students, personalised support and tailored interventions should be explored to help arrest the impacts of ERT on student outcomes. Additionally, the positive aspects of online learning should be further understood, to build a strengths-based framework for supporting students. Comparing students from two different contexts has shown that concerns and challenges associated with digital literacy, student engagement and online learning are universal: higher education intuitions globally should work together to help breach the digital divide. Ultimately, moving to blended teaching and learning beyond the pandemic has the potential to widen inequalities if there are not explicit interventions targeted at first-year students to help them transition into a more digitally enhanced higher education context. This is also true in terms of the later "graduateness" of students. It is ultimately the responsibility of HEIs to ensure that graduates entering the workplace have the desired digital literacy skills (McVitty, 2021).

This research demonstrates that the challenges and concerns experienced by students link clearly to both academic and social immediate outcomes as defined by the SEF (Kahu & Nelson, 2018). Such factors will flow on to long term outcomes relating to student retention, lifelong learning, success in the workplace, citizenship, and personal growth (Kahu & Nelson, 2018), and as such, this research is not just about aiding new students in their transition to university, improving digital literacy, or surviving a pandemic.

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