Open Research Online

Discussion Paper Session

Once More on the Rollercoaster: Loses and Gains from the Rapid Shift to Online Delivery during Covid19

Nolan, E., Brady, M., Rienties, B and Heliot, Y., (2021) Once More on the Rollercoaster: Loses and Gains, Academy of Management Conference, 1-24.

Keywords
Covid19; online delivery, self-regulated learning, student and teaching practices

Eimear Nolan, *Trinity Business School, Trinity College Dublin - U. of Dublin*
Author: **Mairead Brady**, *Trinity Business School, Trinity College Dublin*
Author: **Bart Rienties**, *The Open U., United Kingdom*
Author: **YingFei Héliot**, *U. of Surre*

Once more on the rollercoaster: Loses and gains from the rapid shift to online delivery during Covid19

Abstract

A global rapid shift to online delivery in higher education due to the Covid19 pandemic resulted in students and lecturers pivoting into a new learning environment, in many cases overnight. Our research nested within an Irish university explores how such a rapid educational delivery shift affected both students and lecturers offering a unique dual perspective and input into the changing roles of students and lecturers due to Covid19. Our research design focused on open-ended surveys of 83 M.Sc. postgraduate students and their five lecturers in five modules, followed by qualitative data collected through 34 in-depth interviews. The findings illustrate a complex narrative of self-regulation and challenge for both students and lecturers both needing to adjust to a new educational experience. The main findings is that there is a core challenge in the repositioning of the student and lecturer roles in a new educational ecosystem which needs to be both understood and managed to gain maximum benefit from this rapid and unprecedented change.

Introduction

Higher Education Institutions (HEIs) across the world offering traditional face-to-face education had to quickly react to Covid19 and the subsequent lockdown restrictions by moving to online educational delivery. More than 400 million students and thousands of lecturers were disrupted by the sudden shift to online education (Gonzalez et al. 2020; Crawford et al. 2020; Naffi 2020; Metcalfe 2020). Lecturers, regardless of rank, raced to ensure that students received the rest of their

courses in an online format where the traditional face-to-face or blended approach was no longer feasible. Coupled with this, all students pivoted to online education in the midst of panic as physical campuses were shut down. This emergency immersion into online learning has been nothing short of experimentation by many.

Lecturers were tackled with transforming traditional in-class courses to sole online delivery in a compressed time frame (overnight for many). We know that five years of technologies adoption occurred in over eight weeks for many learners (Crawford et al. 2020; Metcalfe 2020), but a critical point is that many lecturers may not normally have had the skill set to design and deliver education online (van Leeuwen et al. 2015; McKenzie et al. 2020), nor is rapid adoption a norm of adoption behaviour within higher education. For lecturers, designing and implementing intervention changes are usually by trail-and-error, often piecemeal adoption occurring across numerous iterations rather than widespread immediate adoption (Naffi 2020; van Leeuwen et al. 2015). What occurred and continues to occur during Covid19 is a massive global technological experiment that has taken the choice element away from students and lecturers, and mandated a global rapid deployment and trial of online/blended learning (Gonzalez et al. 2020; Crawford et al. 2020; Naffi 2020).

For students this rapid online transference ensured the need for many to alter their self-regulated learning (SRL) to adapt to a new and rapidly shifting learning environment. Zimmerman (2000) defined self-regulation as "self-generated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal learning goals". Students learning in online environments have a range of options and choices as to when, what, how, and with whom to study, with often minimal guidance from lecturers (Dunn and Kennedy 2019; Rienties et al. 2019). Therefore, appropriate SRL strategies are needed for achieving individual learning goals in these unprecedented Covid19 settings. Normally these SRL strategies are developed over time with and through reflection aligning to motivation, task, method, physical environment and social

interactions most of which were distributed (Nijhuis, Segers, and Gijselaers 2008; Hadwin, Järvelä, and Miller 2011; Rienties et al. 2019; Nicol and Macfarlane-Dick 2006).

This massive untested, untrailed and potentially worrying educational endeavour could and most likely will have major consequences for HEI (Gonzalez et al. 2020; Crawford et al. 2020; Naffi 2020). There are now several studies emerging on how students are making sense of this new normal (Gonzalez et al. 2020; e.g., Crawford et al. 2020; Naffi 2020; Mihee et al. 2020). For example, in a Spanish context Gonzalez et al. (2020) found that confinement lead to a significant positive effect on academic performance. In a review of educational reactions to Covid19 in 20 countries, Crawford et al. (2020) found diverse strategies and practical solution by HEIs. Similarly, Naffi (2020) found a renewed interest in pedagogy to transform face-to-face education into online education, but at the same time substantial stress and anxiety amongst lecturers. Using a photo essay method, Metcalfe (2020) visually and narratively documented the changes in a Canadian HEI during Covid19. However, to the best of our knowledge no study has looked at how students and lecturers together make sense of this new situation.

This research explores not only the students' SRL during the rapid Covid19 shift to online delivery, but also SRL strategies implemented by their lecturers. Our research design offers novel insight viewpoints of both parties. The aim of this research is to understand SRL from a) a student's perspective, and b) a lecturer perspective and what was essentially gained and lost by shifting to online course delivery. This timely research into the student and lecturer experiences of the online pivot should provide an early voice to the challenges of moving fully online during Covid19, the degree of adjustment needed on both sides, and offer insights into the resources and supports needed when moving forward.

Self-Regulated Learning

SRL is an overarching conceptual framework under which several aspects of learning reside namely cognitive, motivational, and emotional. In a range of studies, it has been argued that self-regulation is essential for learning, in particular in blended and online settings (Rienties et al. 2019; Järvelä and Hadwin 2013). The rapid shift to online educational delivery during the Covid19 pandemic within one semester in March – July 2020 saw both students and lecturers having to unexpectedly and rapidly alter their 'known', and possibly proven SRL and ultimately develop new strategies of SRL in an online environment. Naturally, it would be expected that from this transition some would fare better than others (Malmberg, Järvelä, and Järvenoja 2017; Nijhuis, Segers, and Gijselaers 2008), based on their ability to change and overcome the transitional external shock (Jindal-Snape 2016; Metcalfe 2020), and motivate themselves to engage with the new online setting.

Student Self-Regulation

We know that SRL in an online setting can be challenging (Rienties et al. 2019; Järvelä and Hadwin 2013), but within online learning the increased social isolation and lack of face-to-face interaction with peers or staff can have a demotivating effect for some groups of learners (Arbaugh 2014; Zou et al. 2020). At the same time, there are several studies that show that using a combination of asynchronous and synchronous online learning tools can lead to a sustained and social learning experience (e.g., Giesbers et al. 2014; Hosam 2019; Stenbom, Cleveland-Innes, and Hrastinski 2016). What is clear from the research is that individual differences exist in SRL as opposed to a one size fits all model (Malmberg, Järvelä, and Järvenoja 2017; Panadero 2017). Indeed, in a review of 430 studies consisting of 90 thousand students Sitzmann and Ely (2011) found that goal level, persistence, effort, and self-efficacy accounted for 17% of variation in learning when controlling for ability and prior knowledge. In other words, how and when

students are learning online is substantially influenced by their self-regulation. This is incredibly challenging as the resources and skill sets for managing how to learn online would be very different than the students' resources and skill sets before Covid19.

Lecturers supporting Self-Regulation

The way lecturers design learning activities (Arbaugh 2014; Rienties and Toetenel 2016), implement teaching and assessment strategies (Bearman et al. 2017; Bennett et al. 2017), and support and motivate learners has shown to have a large impact on students' SRL. For example, in a longitudinal study of students' learning strategies of 124 students in three consecutive courses, Nijhuis, Segers, and Gijselaers (2008) found that the learning strategies adopted by learners changed depending on the perceived learning approach by lecturers. In a more fine-grained study of 40 lecturers using two learning analytics tools, van Leeuwen et al. (2015) showed that lecturers make active, conscious and unconscious decisions to intervene both in the learning design as well as the learning process of students.

Obviously with Covid19 lecturers had to not only change their teaching and practice overnight, they also had to become familiar with the affordances and limitations of online learning. Recent research suggested that there was a need for rapid development of new skills, a deep understanding of technology usage and impact and a new mind-set to support technological adoption, all of which could be challenging for some lecturers (Bearman et al. 2017; Bennett et al. 2017). Indeed, a systematic literature review found evidence that many lecturers underestimated the effects of introducing technology into their assessments and often struggled to optimise the returns from these initiatives (Brady, Fellenz, & Devitt, (2019). Despite many benefits lecturers can find technology 'oppressive and disturbing' and students can be 'adrift on a sea of information with no compass to guide them' (Greenlaw 2015, 899).

The issues which arise is the time element to design and develop innovative programmes that increase, or at least emulate student learning. Most lecturer interventions are designed through trial-and-error over multiple iterations through a process of what is called 'maturing intervention' (McKenney and Reeves 2013) guided by on-going development, consideration, reflection and making small changes to the system (McKenney and Reeves 2013). What is critical is that in the race to online we avoid the unexpected consequences that can ultimately destroy rather than enhance learning (Brady, Fellenz, and Devitt 2019) and capitalise on the strengths or opportunities gained.

Research questions

All Irish universities went from face-to-face delivery to online delivery in March 2020. This 'forced' students to complete their respective courses online for the academic year while in active country lockdown. This sudden change could have a substantial impact on students SRL. Similarly, how lecturers would react to the new situation to (re-)design learning activities in an extremely short time in an online format has received limited attention in the emerging Covid19 literature. Therefore, this study utilised a qualitative approach which allowed for an immediate depth of exploration situated within the wider context. A unique contribution of this study is that we studied both the perspectives and lived experiences of students and lecturers. Given the unprecedented nature of events, we formulated the following two open explorative research questions:

RQ1 What were the main impacts for students of the rapid pivot to online only education due to Covid19?

RQ2 What were the main impacts for lecturers of the rapid pivot to online only education due to Covid19?

Methods

Context and sample for the study

The research design utilised a qualitative approach which allowed for a depth of exploration situated within the wider context. The context was a MSc in International Management (93 students) taking five modules which were rapidly and intentionally redesigned for online only lecturing and learning environment. The redesign was driven by the pandemic only, rather than any research design principles with the class plans having to move from a range of in-person delivery including dialogic engagement; short case studies; an online student response systems; a group simulation; pair and share discussions and within class student discussion and debate.

The students already studied for six months at this institution, and had completed the majority of their modules, and assessments, and therefore it could be argued that they had developed appropriate SRL skills for the face-to-face environment. The delivery mechanism prior to March was in person supported through a Learning Management System - Blackboard.

In March 2020 students had to adjust their SRL to adapt rapidly to the new online learning environment. In practice this meant lecturers having to convert a range of teaching activities online. The remaining five lectures over five modules were made available online. Furthermore, there were approximately three teaching weeks of classes remaining with a multitude of assignments, both group and individual, across four modules at various stages of completion. While this student cohort had the benefit of familiarity with each other, an understanding of their modules, the assignments, the processes and critically all lecturers involved, they had to adjust to the new situation like everyone else on the globe. The delivery mechanism for the remaining weeks was a combination of Blackboard and live online classes through Collaborate and Zoom.

Participants

63 students were female and 30 were male. 59 of the students were between the ages of 21-23 and 29 were in the age range of 24-29. The top nationalities within the cohort were Chinese, Indian and German. All five module lecturers (four males, one female: two Professors, two Associate Professors and one Assistant Professor) delivering their remaining content on the programme during the shift to online delivery participated in the research.

Research Design

Given the unexpected Covid19 pandemic with limited to no research and theoretical concepts to guide the research, the context of this research focuses on two cohorts: the students and the lecturers. The research design adopted a mixed method approach aligned to the need for an explorative, dynamic methodology to allow both lecturers and students to share and express their experiences. Four research methods were utilised: 1) Qualtrics survey to the 93 students (the first week in May 2020), of which 83 students responded, 2) Follow-up interviews with 29 students (second-fourth week of May 2020); 3) Qualtrics survey with five lecturers (the first week in June) on the programme with mainly open-ended questions relating to their experience of the rapid shift to online course delivery; 4) Follow-up interviews with five lecturers (first week of July 2020).

Qualtrics survey and follow-up semi-structured interview with students

Questions included "What has been your experience of working through the remainder of your MSc since the HEI closed the campus due to coronavirus?" and "What has been your experience of working virtually on group assignments since your courses were taken online due to Coronavirus?" Students were also asked for any additional comments about the impact of Covid19 had on their lives. In-depth interviews were conducted with 29 students via Zoom, representing

almost a third of the class. Ten different nationalities were represented, with Chinese, Indian and German dominating. The majority of students (16) stayed in Ireland, two more were Irish and were living at home and eleven students went home (China, India, Austria, Germany).

Qualtrics survey and follow-up semi-structured interview with lecturers

The lecturers completed their experience of transferring to online teaching via the survey. Questions included: "What was your experience of the online delivery?", "do you consider your online delivery was successful/unsuccessful?", and "What is your opinion of the engagement levels of students during the online delivery?" All five lecturers were interviewed about their experiences of shifting to online teaching during the term due to government restrictions.

Data analysis

Qualitative data analysis techniques were used to examine meaningful and symbolic content to identify and investigate the students' and lecturers' interpretations (Miles, Huberman, and Saldana 2014). A rich corpus of data totalling 86,212 words available for analysis. Data reduction and pattern identification techniques were used to produce objective analytic conclusions. Inductive analysis was employed which allowed the explanations to emerge from the data (Creswell 2008) supported by Glaser (1965)'s constant comparative method. Open coding and pattern developments were enhanced through the use of MAXQDA software which also provided a clear audit trail, to support rigour, validity and reliability. The transcripts were analysed through opening coding and a priori theories by Author A, B and C independently, where Author C had no relations to this HEI.

Ethical considerations

This research obtained ethical approval in April 2020 (Blinded XYZ), and consent forms were collected from participants.

Results

Research Question 1: Impact of Covid19 on students

A complex relationship between students' technology use, student engagement, SRL and academic performance exist (Panadero 2017; Hadwin, Järvelä, and Miller 2011; Järvelä and Hadwin 2013; Nicol and Macfarlane-Dick 2006), in particular during Covid19 (Crawford et al. 2020; Gonzalez et al. 2020; Lund Dean and Forray 2020; Naffi 2020). This was evident from the reflections of both students and lecturers in this research. Similar to other studies (Dunn and Kennedy 2019; Zou et al. 2020) the evidence of student use of social media for organizing and logistics was clear with some students finding this distributed learning allowed for the sharing of ideas and creation of new innovations without traditional disruptions and time management issues, while others found the systems challenging and unresponsive to their needs or preferred mode of study and learning. There was evidence of on-going changes in the use of space, and time, with a more fluid, online and immersive experience then traditional education with study dominating their days and keeping them busy, focused and active.

The vast majority of students in this study travelled to another country to engage in an international educational experience (both academic and personal) in August/September 2019.This engagement was cut short as a result of Covid19 restrictions which left students turning to online education instead of the expected face-to-face delivery. The results give rise to a number of interesting interpretations and implications and show evidence of positive and negative aspects to both the student and lecturer experiences. Three main themes emerged from the qualitative research of students and lecturers.

Theme 1. Longing for face-to face social interaction (SRL - support from others)

The strongest theme that emerged from the students was the criticality of the student-to-student support. The most common examples mentioned were more of a socialising and support nature, but also with the lecturer. The engagement which was particularly noted was before and after class, or with other students in the course. The lack of face-to-face socialisation for many students was difficult to adjust to, and mental health was raised by many students as a concerning issue within this study.

> '*Psychologically, it has had a major impact. Going from an international environment buzzing of life to an online teaching environment is terribly hard. Not because of the content being delivered or the form in which it is being delivered but because of the lack of social interactions and the possibility to "grab a beer and clear your head" at the end of a long day'.* (Student 12).

Students linked this lack of face-to-face contact with reduced motivation to engage and participate in the new learning environment, suggesting that students had experienced several difficulties when with reassessing and adapting their established SRL to the new learning environment. Similarly, '*The vast majority of my classmates have zero motivation regarding university matters*' (Student B). This was supported by several comments from students. This was echoed by Student F who indicated:

> '*[a] lot of struggle with motivation in group work and time management', with statements like, stressful, overwhelming, unmotivated, and difficulty concentrating being mentioned consistently throughout our study.* (Student 13)

Overall, there was a great sense of loss from the students when they expressed their experience of reverting to online education. Student 6 '*Continuing online was not a problem, but the social interaction and international experience has been stolen which is very sad for everybody*'. This is natural under the unusual Covid19 circumstances, as the majority of these students had travelled internationally to take the MSc hoping to engage and interact with peers, lecturers and their new environment. The government restrictions ultimately meant that students only received six of the possible ten months in the face-to-face classroom setting and environment before Covid19 restrictions were put in place.

The challenges of online teams and the lack of ability to have physical social interaction within the teams was clear and its impact on their learning was noted but needs further exploration. There was almost a new creation of the student self as sharing and considering the inputs and viewpoints of a wide range of students and developing their higher order learning but with online cues only, relying on the team spirit previously developed and working around issues as they arose due to the time pressure to complete and the end line in sight.

Furthermore, the majority of students noted that online classes due to Covid19 were challenging, time consuming, and not as effective as face-to-face classes. For example, students noted that pre-recording of classes and uploading only voice over slides was not beneficial to their learning. One student explicitly stated that the learning curve had reduced as a result of going online '*The learning curve became clearly flatter and it was harder to have discussions with classmates or lecturers*' (Student 10). While many students reported dissatisfaction with turning online, this was mainly due to the lack of communication they had with their peers and their lecturer.

Theme 2. Like in the Zoo (New Rules of Engagement)

The second theme that emerged consistently throughout the research was the feeling of being in a 'zoo' when learning turned online. Common issues cited were students talking over one another online, time differences, connectivity issues, students not having web cameras on, and students continuing their routine at home while participating in the online environment. All of this made the conversation hard to follow causing frustration for some students.

> '*So just communicating online like it was like a zoo. More Skype, but it was a bit difficult because most times people don't even like turn on the video. So you don't worry, you know who you're speaking to. It's quite difficult because we aren't too productive for the most time. So people might be cooking or doing their own thing, but it's slowed down the process, I think. So, yeah, it was quite difficult, actually and it was just it was a bit difficult. It was actually very, very difficult for me. (Student 20)*

This unorganised environment resulted in students getting frustrated and stressed which can influence students' willingness to participate online with others. This has previously been found in a range of studies in online learning settings, as developing coping and netiquete strategies are needed to effectively work together online (Arbaugh 2014; Giesbers et al. 2014; Hosam 2019). All students brought this issue up when speaking about working with the groups on projects, this was not raised as an issue within the online 'classroom' setting, where the lecturer was moderating the chat and raise hand functions. For example:

> '*So it's just it's been extremely difficult to like... It's like people talking over each other. And it's just a mess. So, it's really made things difficult* (Student 11).

The findings show that the delivery was between the desired and minimal expected standard for a crisis situation and a pivot to online worldwide - '*the school is doing pretty good*' (Student 5). It was clear that some lecturers delivered only to the minimal accepted standard (e.g., recorded slides and truncated engagement), while other lecturers were exemplary, interactive, live and mirroring

the class engagement. These differing levels were all accepted, or at least understood, by the students due to their understanding of the contextual pandemic panic and a belief that this was not an academic skill set.

Students conceded that lecturers in general had performed well under the circumstances, but of critical importance that this was not an endorsement or a sense that they did well in general. The social norms or what was expected in this situation were reached, and the lecturers predominantly delivered below the standard expected of a classroom or face-to-face engagement, but to the standard of what can be provided in a short period of time. For most they were able to match the normative expectations of others (accountabilities) against the personal and distributed resources available to meet them (capacity) aware of this challenging environment.

> *'Actually, we had one class where a lecturer just uploaded the slides with some voiceover and with this, I feel like people are not listening that actively or maybe not at all. So, one lecturer did live sessions on Blackboard. So, you see the attendance. You can communicate. You can have a chat forum where you can ask questions' (Student 29).*

Theme 3. Like on a Rollercoaster

The sudden shift for online learning for students and lecturers caused an initial panic state that seemed to have levelled off once the transition had been made, in line with SRL theories (Järvelä and Hadwin 2013; Nijhuis, Segers, and Gijselaers 2008; Panadero 2017). For students it came as a shock, in particular the speed at which the global pandemic escalated forcing counties into lockdown. Students were asked to vacate campus accommodation where possible to reduce the infection rate in close quarters (Author A 2020a). For students that was the start of the panic, those that could desperately tried to secure flights back to their home country where possible. Some

international students noted paying large amounts of money to purchase a flight. For other international students their country borders were locked meaning they had to reside in Dublin for the foreseeable future. Student 20 *'In a panic situation, I even booked a flight back home worth 2000 euros'* while another student states '*My home country India has banned all international flights and I am unable to fly back which was initially my plan'*.

Once this initial panic passed it became clear that the majority of students adapted to their situation reporting a more levelled reaction to Covid19, suggesting that they had established some coping strategies and abilities and altered their SRL to fit their current online environment. '*It has been very like a roller coaster for me. But I think it's challenging. So, I'm going to be out of this, and I'll be fine and go back to normal and everything.'* (Student 12). *'It is difficult to adapt to the changing way of working in teams virtually, but it is interesting to be in touch and work effectively despite the pandemic.* (Student 56)*'*

The students were pained at losing the authentic face-to-face learning experience, but over time both the surveys and interviews indicated that most students were good natured and patient and appreciative of what was delivered rapidly and under non-ideal circumstances. It is not surprising that students did not view online educational delivery and face-to-face delivery as similar. They valued the within class experience and missed it and were very aware of what was lost by the rapid move online. Suggesting that this '*wasn't the same experience*' (Student 2). However, due to the context there was resigned acceptance and also some understanding of advantages. '*but I guess like there's not much you can do about it. Like this is what the situation is. So, I kind of accepted that*' (Student 2). They articulated clearly the lack of social interaction and class engagement as the core issues. '*Sitting at one base ... No talking with friends and no interacting ... interesting but boring....* (Student 18). This was particularly true for classes which were pre-recorded.

Research Question 2: Impact of Covid19 on lecturers

In terms of Theme 1, delivering classes online was clearly a new experience for all five lecturers, and had its own challenges for lecturers in relation to social interaction. The well-reported issue in online education (Arbaugh 2014; Giesbers et al. 2014; Hosam 2019) of not being "able to see and read students faces" came up as something that required a certain degree of adjustment. Something that is quite natural in a classroom is hard to gauge in a live class online, especially when the technology is not available to allow lecturers to see all students on one screen. This illustrated by Lecturer 2:

> *'[t]he move online is far more intense and then that of the classroom, because you can get the natural breaks in the classroom. You can read the room. And then, you know, shutting up was very important to give people the chance to respond. And being very conscious and to a degree where I had a stopwatch in front of me and every kind of 10 or 15 minutes, depending, I would stop and take any questions and then just shut up for two minutes. Give people a chance to kind of respond'.* (Lecturer 2)

Another lecturer noted that the majority of students would have their web cameras off, so it was hard to read the level of engagement of what was happening during the class. Several studies have found that the ability for lecturers and students to develop a sense of a learning community and effectively support SRL is strongly dependent on the affordances and technologies used in synchronous online learning (Giesbers et al. 2014; Hosam 2019; Stenbom, Cleveland-Innes, and Hrastinski 2016).

In order to ensure that students were online and had not just signed in and then walked away from the computer, this lecturer would take several breaks where the students would have to log back into the class to continue.

> '...you got a picture or a tombstone, as I call it. You didn't know if they were actually there or not. So, what I started doing was turning off the zoom every break. So, I actually closed the meeting, every break, so that people if they were just sort of sitting there, at least had to sort of log back in and I could see it' (Lecturer 3).

In terms of Theme 2, while students indicated the zoo-like atmosphere online, lecturers saw this in a different light. They noted the positive in online delivery as students who were quiet in class tended to get more involved in the online conversations.

> 'those who normally speak in the classroom weren't as loud on the chat. And because of that we had more engagement on the chats. And you know that those voices may have been either dampened or you can get the opportunity to ask the questions. But it was something that was very noticeable to me. Very nice. (Lecturer 2)

Lecturers also noted that they had to be more focused in their delivery and not drift off the topic as they would do in a classroom environment. Similarly, 'The big difference was that we had to be far more focused. There's no way to hide' (Lecturer 3).

Like students experiencing a rollercoaster ride in Theme 3, lecturers experienced initial panic about which technology to use to deliver the remainder of the classes. 'panic around the technology was very real. And in that week, the week leading up to my first delivery, you could see, you know, the acceleration to change as to whether you were going to use teams or the Blackboard or Zoom' (Lecturer 2). One lecturer who delivered their course live online to students noted that after the initial panic of selecting suitable technology the delivery went well. So 'I found the whole thing quite seamless (Lecturer 2). This sentiment was echoed by another lecturer who did voice over

powerpoints recordings and uploaded them for the class to view, *'the process itself took almost no time whatsoever. What took the time was deciding on which system to use'* (Lecturer 4).

Discussion

A global rapid shift to online educational delivery occurred due to the Covid19 pandemic where both students and lecturers overnight pivoted into a new online learning environment. Our research explored how such a rapid change in educational delivery shift impacted 83 students and five lecturers, offering a unique dual perspective and input into the changing role of students and lecturers. Using a constant comparative method of both lived experiences, the findings illustrate a complex narrative of self-regulation for both students and lecturers needing to adjust to a 'new normal'.

Three main themes emerged from the rich data that was collected both in surveys and follow-up interviews with students and lecturers: 1. Longing for face-to face social interaction; 2) Like in the Zoo (New Rules of Engagement); 3) Like on a Rollercoaster. Perhaps not entirely surprising given the unprecedented nature of the pandemic, the strongest theme that emerged from the students in this research was the criticality of the student-to-student support. The lack of opportunities to engage in face-to-face socialisation was difficult for many students, which had a negative impact on their mental health. Several students reported lower motivation and self-efficacy due to the changed situation, which had a negative impact initially on the SRL and engagement.

This lower perceived SRL was in part also influenced by getting used to the new affordances of the technologies and pedagogies, whereby students and lecturers were talking over one-another like in the Zoo (Theme 2). This unorganised environment resulted in students getting frustrated and stressed which can ultimately influence students' willingness to participate online with others. This has previously been found in a range of studies on Covid19 (e.g., Mihee et al.

2020) and online learning settings in particular, as developing coping and netiquete strategies are needed to effectively work together online (Arbaugh 2014; Giesbers et al. 2014; Hosam 2019).

Nonetheless, the students concurred that the delivery and approaches developed by lecturers were sufficient in these difficult, complex times. The sudden shift to online learning for students and lecturers caused an initial panic state that seemed to have levelled off once the transition had been made, in line with SRL theories (Hadwin, Järvelä, and Miller 2011; Järvelä and Hadwin 2013; Nijhuis, Segers, and Gijselaers 2008; Panadero 2017; Malmberg, Järvelä, and Järvenoja 2017). The students were pained at losing the authentic face-to-face learning experience, but overall the majority of students were good natured and patient with what was delivered online rapidly and under non-ideal circumstances.

In terms of the lecturers, this was an extremely tense period for lecturers to suddenly deliver their practice online, which for many was a new and 'forced' experience. Beyond the commonly reported technological affordances and limitations of lecture recordings and interactive videoconferencing, like students experiencing a rollercoaster ride, lecturers experienced initial panic about which technology to use to deliver the remainder of the classes. Nonetheless, as highlighted by both students and lecturers over time they became more comfortable with their new role.

In line with the emergent literature on Covid19 in higher education (Crawford et al. 2020; Naffi 2020; Mihee et al. 2020; Metcalfe 2020), the findings of this study highlight both the challenges and consequences of this rapid shift to online and explore the pitfalls of intense time pressures and in many cases a panicked and fearful educational environment. However, what is new in this study is the robust and large-scale qualitative data collection of lived experiences of both students and lecturers over time in five modules.

Limitations of study

First, the context of the study is nested within one MSc programme in Ireland in International Management. While similar patterns have emerged across different universities across the globe, as such this study cannot be generalised. It would be interesting if future research conducted a longitudinal study of students as many universities have or will return to online delivery under government restrictions relating to Covid19 allowing them to explore the SRL shifts of students and lecturers when parties are aware of the possibility for more restrictions forcing them to return to online delivery. Second, our data is solely self-reported data from students and lecturers at two-time intervals using open- and semi-structured questionnaires and interviews. Beyond obvious self-reporting biases there are concerns that some students might be more forthcoming in their experienced lived experiences than others.

General Conclusions

Covid19 has had a fundamental impact on students and lecturers in higher education across the globe. As highlighted in this rich qualitative study, both lecturers and students developed coping strategies to continue educational provision under very difficult circumstances. Understanding that we must optimise the suboptimal for the coming academic year and to ensure as successful an outcome as possible we need a true student/lecturer partnership. This cannot happen without truly institutional support.

Students need to take a more pronounced degree of ownership in their educational experience and work together with lecturers to ensure that the semester is good, if not better than that of a year ago. This partnership will be involved in a global pilot test, a live trial and error experiment of working together on continuous development rather than the provision of a pre-

package programme of study. This could be a period of great innovation and development rather than a forgotten year in an educational desert.

References

Arbaugh, J. B. 2014. "System, scholar, or students? Which most influences online MBA course effectiveness?" *Journal of Computer Assisted Learning,* 30 (4):349-62. doi: 10.1111/jcal.12048

Bearman, Margaret, Phillip Dawson, Sue Bennett, Matt Hall, Elizabeth Molloy, David Boud, and Gordon Joughin. 2017. "How university lecturers design assessments: a cross-disciplinary study." *Higher Education.* 74 (1):49-64. doi: 10.1007/s10734-016-0027-7.

Bennett, Sue, Phillip Dawson, Margaret Bearman, Elizabeth Molloy, and David Boud. 2017. "How technology shapes assessment design: Findings from a study of university lecturers." *British Journal of Educational Technolog*y. 48 (2):672-82. doi: 10.1111/bjet.12439.

Brady, Mairead, Martin Fellenz, and Ann Devitt. 2019. "Reflections on Using a Theory-Based Online Simulation in the Classroom: Unintended Consequences with Obvious and Hidden Lessons for Adopters." *AISHE-J: The All Ireland Journal of Teaching and Learning in Higher Education.* 11 (2).

Crawford, Joseph, Kerryn Butler-Henderson, Jürgen Rudolph, Bashar Malkawi, Matt Glowatz, Rob Burton, Paulo Magni, and Sophia Lam. 2020. **"COVID-19: 20 countries' higher education intra-period digital pedagogy responses**." *Journal of Applied Learning & Teaching* 3 (1):1-20.

Creswell, J.W. 2008. **Research Design Qualitative, Quantitative and Mixed Methods Approaches.** 3rd ed: Sage Publications.

Dunn, T. J., and M. Kennedy. 2019. "Technology Enhanced Learning in higher education; motivations, engagement and academic achievement." **Computers & Education.** 137:104-13. doi: 10.1016/j.compedu.2019.04.004.

Giesbers, B., B. Rienties, D.T. Tempelaar, and W. H. Gijselaers. 2014. "A dynamic analysis of the interplay between asynchronous and synchronous communication in online learning: The impact of motivation." *Journal of Computer Assisted Learning*. 30 (1):30-50. doi: 10.1111/jcal.12020.

Glaser, Barney G. 1965. "The Constant Comparative Method of Qualitative Analysis." *Social Problems*. 12 (4):436-45. doi: 10.2307/798843.

Gonzalez, T., M. A. de la Rubia, K. P. Hincz, M. Comas-Lopez, Laia Subirats, Santi Fort, and G. M. Sacha. 2020. "Influence of COVID-19 confinement on students' performance in higher education." *PLOS One*. 15 (10):e0239490. doi: 10.1371/journal.pone.0239490.

Greenlaw, Jim. 2015. "Deconstructing the Metanarrative of the 21st Century Skills Movement." *Educational Philosophy and Theory*. 47 (9):894-903. doi: 10.1080/00131857.2015.1035156.

Hadwin, Allyson Fiona, Sanna Järvelä, and Mariel Miller. 2011. "Self-regulated, co-regulated, and socially shared regulation of learning." *Handbook of self-regulation of learning and performance.* 30:65-84.

Hosam, Al-Samarraie. 2019. "A Scoping Review of Videoconferencing Systems in Higher Education." *The International Review of Research in Open and Distributed Learning*. 20 (3). doi: 10.19173/irrodl.v20i4.4037.

Järvelä, S., and Allyson F. Hadwin. 2013. "New Frontiers: Regulating Learning in CSCL." *Educational Psychologist*. 48 (1):25-39. doi: 10.1080/00461520.2012.748006.

Jindal-Snape, D. 2016. *A-Z of Transitions*. London, UK: Palgrave.

Lund Dean, Kathy, and Jeanie M. Forray. 2020. "A Silver Linings Playbook, COVID-19 Edition." *Journal of Management Education*. 44 (4):399-405. doi: 10.1177/1052562920931901.

Malmberg, Jonna, Sanna Järvelä, and Hanna Järvenoja. 2017. "Capturing temporal and sequential patterns of self-, co-, and socially shared regulation in the context of collaborative learning." *Contemporary educational psychology.* 49:160-74. doi: 10.1016/j.cedpsych.2017.01.009.

McKenney, Susan, and Thomas C. Reeves. 2013. "Systematic Review of Design-Based Research Progress: Is a Little Knowledge a Dangerous Thing?" *Educational Researcher.* 42 (2):97-100. doi: 10.3102/0013189X12463781.

McKenzie, Sophie, Rachael Hains-Wesson, Shaun Bangay, and Greg Bowtell. 2020. "A team-teaching approach for blended learning: an experiment." *Studies in Higher Education*.1-15. doi: 10.1080/03075079.2020.1817887.

Metcalfe, Amy Scott. 2020. "Visualizing the COVID-19 pandemic response in Canadian higher education: an extended photo essay." *Studies in Higher Education*.1-14. doi: 10.1080/03075079.2020.1843151.

Mihee, Park, Park John Jongho, Jackson Kathy, and Vanhoy Garrett. 2020. "Online Engineering Education Under COVID-19 Pandemic Environment." *International Journal of Multidisciplinary Perspectives in Higher Education*. 5 (1). doi: 10.32674/jimphe.v5i1.2811.

Miles, Matthew B, A Michael Huberman, and J. Saldana. 2014. Qualitative data analysis: An expanded sourcebook. New York: Sage.

Naffi, Nadia. 2020. "Disruption in and by Centres for Teaching and Learning During the COVID-19 Pandemic Leading the Future of Higher Ed." In. **Canada: Universite Laval.**

Nicol, David, and Debra Macfarlane-Dick. 2006. "Formative assessment and selfregulated learning: a model and seven principles of good feedback practice." *Studies in Higher Education*. 31 (2):199-218. doi: 10.1080/03075070600572090.

Nijhuis, Jan, Mien Segers, and Wim Gijselaers. 2008. "The extent of variability in learning strategies and students' perceptions of the learning environment." *Learning and Instruction*. 18 (2):121-34. doi: 10.1016/j.learninstruc.2007.01.009.

Panadero, Ernesto. 2017. "A Review of Self-regulated Learning: Six Models and Four Directions for Research." *Frontiers in Psychology*. 8 (422). doi: 10.3389/fpsyg.2017.00422.

Rienties, B., B. Giesbers, D.T. Tempelaar, S. Lygo-Baker, M. Segers, and W.H. Gijselaers. 2012. "The role of scaffolding and motivation in CSCL." *Computers & Education*, 59 (3):893-906. doi: 10.1016/j.compedu.2012.04.010.

Rienties, B., D. T. Tempelaar, Q. Nguyen, and A. Littlejohn. 2019. "Unpacking the intertemporal impact of self-regulation in a blended mathematics environment." *Computers in Human Behavior* ,100 (November 2019):345-57. doi: 10.1016/j.chb.2019.07.007.

Rienties, B., and Lisette Toetenel. 2016. "The impact of learning design on student behaviour, satisfaction and performance: a cross-institutional comparison across 151 modules." *Computers in Human Behavior,* 60:333-41. doi: 10.1016/j.chb.2016.02.074.

Sitzmann, Traci, and Katherine Ely. 2011. "A meta-analysis of self-regulated learning in work-related training and educational attainment: What we know and where we need to go." *Psychological Bulletin.* 137 (3):421-42. doi: 10.1037/a0022777.

Stenbom, Stefan, Martha Cleveland-Innes, and Stefan Hrastinski. 2016. "Emotional Presence in a Relationship of Inquiry: The Case of One-to-One Online Math Coaching." *Online Learning*, 20 (1). doi: 10.24059/olj.v20i1.563.

van Leeuwen, Anouschka, Jeroen Janssen, Gijsbert Erkens, and Mieke Brekelmans. 2015. "Lecturer regulation of cognitive activities during student collaboration: Effects of learning analytics." *Computers & Education*. 90:80-94. doi: 10.1016/j.compedu.2015.09.006.

Zimmerman, Barry J. 2000. "Attaining self-regulation: A social cognitive perspective." In *Handbook of self-regulation*, edited by Monique Boekaerts, Paul R. Pintrich and Moshe Zeidner, 13-39. New York, NY: Elsevier.

Zou, Wenting, Xiao Hu, Zilong Pan, Chenglu Li, Ying Cai, and Min Liu. 2020. "Exploring the relationship between social presence and learners' prestige in MOOC discussion forums using automated content analysis and social network analysis." *Computers in Human Behavior*:106582. doi: 10.1016/j.chb.2020.106582.