Academics' experiences of Block Model assessment during COVID-19: Taking principles-based insights into the future

Routledge
Taylor & Francis Group

Innovations in Education and Teaching International

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/riie20

Academics' experiences of Block Model assessment during COVID-19: Taking principles-based insights into the future

Gayani Samarawickrema, Kaye Cleary, Daniel Loton, Trudy Ambler & Tomas Krcho

To cite this article: Gayani Samarawickrema, Kaye Cleary, Daniel Loton, Trudy Ambler & Tomas Krcho (22 Dec 2023): Academics' experiences of Block Model assessment during COVID-19: Taking principles-based insights into the future, Innovations in Education and Teaching International, DOI: 10.1080/14703297.2023.2296657

To link to this article: https://doi.org/10.1080/14703297.2023.2296657

Published online: 22 Dec 2023.

INNOVATIONS IN EDUCATION AND TEACHING INTERNATIONAL
https://doi.org/10.1080/14703297.2023.2296657

Routledge
Taylor & Francis Group

Academics' experiences of Block Model assessment during COVID-19: Taking principles-based insights into the future

Gayani Samarawickrema, Kaye Cleary, Daniel Loton, Trudy Ambler and Tomas Krcho

Connected Learning, Victoria University Melbourne, Melbourne, Australia

ABSTRACT

Academics' experiences of transitioning assessments to emergency remote teaching (ERT) during COVID-19 were investigated in a Block Model (BM) higher education context. Students studied one subject at a time in small classes over four weeks. Evaluation cycles were short. An institution-wide qualitative survey highlighted three themes impacting on assessment: (1) review for change; (2) technology and people support; and (3) reflection on what worked well. Workload management was common to all. Findings include actionable feedback through smaller assessment tasks embedded within learning cycles, equity at multiple levels to foster engagement and connection among students, and mitigating academic misconduct. Supporting technology should be accessible, build connections and aid alternative versions of assessments. Findings inform principles-based recommendations. These principles underpin impactful assessment-related modifications in an ERT environment framework. The influence of changing environments render the framework applicable to any study mode, or innovation including when preparing for the next crisis.

KEYWORDS

Assessment practices; emergency remote teaching; ERT assessment principles; higher education; intensive curriculum; ERT framework

Introduction

Assessment is a high stakes practice (Fletcher et al., 2012) valued by students, institutions, accrediting bodies, employers and governments. High-quality, purposefully designed formative and summative assessments providing feedback, fosters student learning. Attaining this challenged academics during COVID-19 as they rapidly transitioned their on-campus assessments to a novel online context.

Emergency remote teaching (ERT) provides a temporary and mostly online response in crisis situations (Hodges et al., 2020). It is ad-hoc compared to a planned, coherent online learning experience. COVID-19-precipitated transitions provided limited time for pedagogical modifications, exerting significant pressure on academics (Slade et al., 2022). Academics quickly reconfigured learning and teaching (L&T) and hurriedly redesigned on-campus assessments for ERT (Meccawy et al., 2021; Slade et al., 2022; St-Onge et al., 2022; Tuah & Naing, 2021).

CONTACT Gayani Samarawickrema Gayani.Samarawickrema@vu.edu.au Connected Learning, Victoria University Melbourne, Melbourne, Australia

Background – assessment in Victoria University's Block Model

Victoria University (VU) is an Australian multi-campus institution of 31,000 higher education (HE) students with its principal campus in Melbourne. In 2018 VU introduced an intensive Block Model (BM) curriculum to first-year undergraduate students, then extended it to subsequent year levels across all undergraduate programmes (Loton et al., 2022). Students study one subject at a time and complete their assessments over a 4-week period. The BM is a hybrid model comprising an on-campus physical learning environment and a virtual learning environment (Samarawickrema & Cleary, 2021). Leveraging digital technology for L&T and assessment is essential given BM's hybrid nature.

A series of pedagogical principles guide the design and implementation of the BM (Samarawickrema & Cleary, 2021). One such principle focuses on task diversity emulating authenticity. Another principle on developmental assessments with opportunities for collaboration and feedback. Smaller scaffolded tasks are deconstructed from larger assessments (Kuiper et al., 2015), deliberately building in feedback cycles. The first assessment occurs within week 1 and is marked within two working days. Rubrics provide structured feedback initiating early ongoing feedback routines to help students improve their performance. Final grades are ratified within two days of the end of the teaching period. All assessments meet the Australian Qualification Framework standards and conditions/prerequisites stipulated by professional associations.

Prior to COVID-19, each BM subject had a learning management system (LMS) site including resources and most assessments. Excluded were face-to-face assessments and practical tasks. During COVID-19 on-campus workshops became online sessions offered via Zoom (video conferencing).

The increasing interest in intensive modes of study (IMS) has generated a growing body of literature in the recent past (Chau et al., 2022; Dixon & O'Gorman, 2019; Goode et al., 2022; Kuiper et al., 2015; Loton et al., 2022; Male et al., 2017; Samarawickrema & Cleary, 2021; Turner et al., 2021; University of Suffolk, 2021). There are fewer studies of IMS during the pandemic (Cleary et al., 2023; Raponi et al., 2021).

Impact of the pandemic on assessment practices

Emergencies call for immediate temporary responses which cannot accommodate all assessment best-practices, thereby prompting academics to critique their practice. We reviewed literature from two areas, assessment practices during the pandemic, and assessment in HE IMS to identify recommendations. The impact on students must remain a central consideration when rapidly moving assessments online during COVID-19 (St-Onge et al 2022). Assessments must also align with students' future practice (St-Onge et al, 2022). Discipline-specific learning outcomes often guide format selection (Slade et al., 2022). Ensuring variety of assessment formats is routinely recommended (Conrad & Openo, 2018; Slade et al., 2022). Tuah and Naing (2021) suggest a range of individual and group formative assessments that work effectively. These include online quizzes, multiple choice questions, short answer questions, self-test quiz tools, discussion forums, e-portfolios, presentations and simulated clinical skills. They identify commonly used summative formats as short-answer questions, viva-voce using voice technology, essays with

automated submission, plagiarism check and online feedback, peer-assessment for group interaction/presentations, and proctored examinations.

Challenges relating to academic integrity, security and fairness arose when adapting assessments to ERT (Almossa & Alzahrani, 2022; Gamage et al., 2020; Montenegro-Rueda et al., 2021; Şenel & Şenel, 2021). Verifying identity became an issue. Slade et al. (2022) report students cheat more when online. Guangul et al. (2020) suggest embedding preventive measures into assessment design. Strategies to manage issues such as contract cheating, collusion, and impersonation are recommended (Hosseini et al., 2021; Tuah & Naing, 2021).

Assessment must be revised to suit diverse learning needs and accelerated time-frames through shorter and more frequent tasks (Dixon & O'Gorman, 2019). Şenel and Şenel (2021) confirm students require quick feedback to guide learning. Providing appropriate and timely student feedback is challenging (Al-Maqbali & Hussain, 2022; Lynam & Cachia, 2018; Slade et al., 2022). McDonald et al. (2018) and Nerantzi and Chatzidamianos (2020) suggest scaffolding learning across weekly sessions to promote timely feedback. Nerantzi and Chatzidamianos (2020) advise that assessment be completed during the teaching period by embedding weekly activities. Additionally, Loton et al. (2022) recommend semi-automated rubrics for feedback efficiency and consistency.

As demonstrated, aligning learning outcomes with assessments, providing summative and formative assessment variety, ensuring assessment security, reliability and fairness remain important in ERT. In IMS, embedding timely, effective feedback is frequently raised as a challenge. This background establishes the context within which to examine academics' experiences of affordances and impediments in effectively transitioning IMS assessments to ERT. Excluding Nerantzi and Chatzidamianos (2020), research that explicitly brings together understandings of academics' practices in the transition of assessment from intensive on-campus curricular to ERT in HE is limited.

This paper is a facet of a larger investigation into VU academics' transition to ERT (Cleary et al., 2023). Results are reported separately because participants identified assessment processes as key to operating in the emergency. This paper contributes to the literature by providing a framework based on factors facilitating or challenging sustainable assessment practices when preparing for ERT.

Aim and research question

This research aimed to propose a principles-based framework for shaping assessment practices, especially during crisis situations, drawn from academics' experiences. The research question is: what factors facilitate or challenge assessment transition to ERT in a BM curriculum?

Method

All 547 VU academics who were teaching during COVID-19, employed in ongoing, part-time, or casual roles were invited to identify factors that facilitate or challenge effective BM assessments practices. Ninety-five reflected on and articulated their situated experiences of transitioning assessments to ERT. The researchers, located within the central L&T area, concurrently supported BM roll-out and taught a HE L&T course in BM.

Data collection

Data was collected during the first five months of Melbourne's 262-day COVID-19-precipitated lockdown (Kelly, 2021). Both demographic data and qualitative insights were collected via an anonymous online survey with open-ended questions (ethics approval number HRE19–101). The survey was promoted to all academics through institutional social networks, internal mailing lists, and the LMS. Questions captured participants' teaching background and identified the extent to which they changed assessment for ERT. Open-ended questions captured participants' observations of assessment suitability in the BM, whether changes were required for ERT, factors that facilitated assessment transition, and lessons learned.

Data analysis

Quantitative and qualitative data were analysed separately, then brought together to situate qualitative responses in relation to academics' backgrounds. Qualitative data was analysed consistent with a grounded theory and constructivist paradigm (Lincoln & Guba, 2016). Phases 1–5 of Braun and Clarke's six-phase reflexive thematic analysis (Braun & Clarke, 2022) was adopted to stay close to participants' words and meanings. This approach focused on participants' experience in their unique context, prioritising personal experiences and practice-based reflections to derive nuanced interpretation of insights and lessons related to the research question.

We met regularly via Zoom applying Braun and Clarke's (2022)analytical phases to interpret data and resolve divergent researcher positions. This comprehensively captured and authentically represented participants' experiences of factors that facilitated or impeded their rapid transition of assessment to ERT. Data was interrogated to identify themes and elicit a framework for use across institutions. In the first analysis phase, researchers individually read and re-read the survey responses familiarising themselves with the data. Implementing the semantic approach of the second phase, recurrent words and phrases were coded as interim categories. Participants' experiences thereby formed the basis of interim codes (changes to assessments, marking, methods that worked well, security, plagiarism, cheating, copying, changes to work placements and laboratory-based assessment activities, the use of technology, assessment weightings, resources and challenges) which became the data source of subsequent overarching themes.

Once interim codes relating to participants' experiences were identified, we focused on generating themes directly addressing the research purpose (encapsulated in the aims and research question). In phase three, words and phrases were combined into themes capturing participants' experiences. The research agenda was foregrounded in phase four, confirming supporting data. In phase five researchers refined each theme through reflection and discussion. Themes were named in this phase as: review for change; support – technology and people; and reflections on successes and challenges. Quotes responding to the research question, '*what factors facilitate or challenge assessment transition to ERT in a BM curriculum?*', were selected.

Limitations

Data was collected from a single, campus-based institution at the start of COVID-19. Pandemic restrictions limited participation to safe online environments. In non-pandemic circumstances focus groups would have been employed to elicit more nuanced data. These circumstances may have contributed to the modest 17.37% response rate. However, 95 participants from all undergraduate disciplines provided a diversity of personal experiences within a qualitative approach. Although we do not include recommendations for designing assessments, we propose an experience-based framework for evaluating and re-designing tasks.

Findings

Participants had a wide range of experience in BM teaching, ranging from no BM teaching, through to teaching more than 11 BM subjects prior to ERT (Figure 1). (Figures 1 and 2) indicate the extent of change academics made to assessments in ERT.

(Figure 1) illustrates the impact of BM experience where most reported a 'little' change (n = 49, or 51.6%), followed by 'significant' (n = 25, or 26.3%), and a minority reported no change (n = 17, or 17.9%). Participants with no BM teaching and those with substantial teaching (15+ Blocks) were less likely to make 'significant' changes than their colleagues. Those with substantial BM experience have modified assessments to suit BM curricula over several years. This experience gave confidence for ERT, indicating compatibility between BM and ERT. Participants without BM experience were less confident changing assessments for an unfamiliar ERT context.

(Figure 2) illustrates the relative impact of HE-teaching experience on the extent of assessment changes. Nearly 1/3 (32%) of participants with 6+years of experience made significant changes, whereas only 18% of those with 0–5 years made significant changes.

Academics' ERT transition was facilitated by the hybrid design of the VU BM embedded within an LMS. All assessments excluding face-to-face assessments were available online prior to ERT. Three themes were identified as impacting ERT transition:

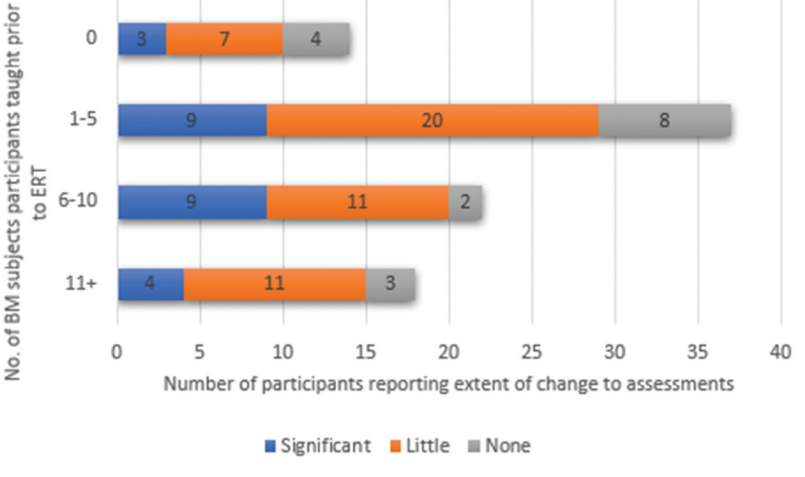

Figure 1. BM subjects taught prior to ERT and extent of change to assessments during ERT transition. Note: n = 91. Four participants did not respond.

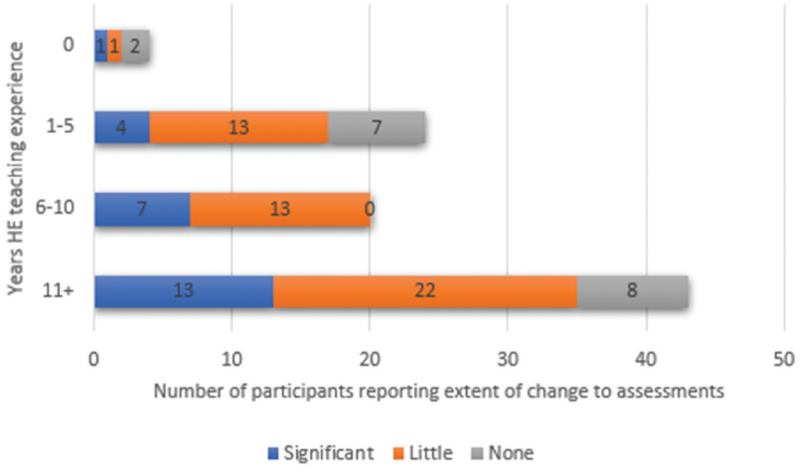

Figure 2. Years of HE-teaching and extent of change to assessments during ERT transition. Note: $n = 91$. Four participants did not respond

(1) Review for change: Included substituting practical workplace assessments, breaking up assessments, redesigning assessments for marking practicability, scaffolding assessments, and re-weighting assessments.
(2) Support – technology and people: Included technology assistance, and connecting with colleagues and leadership when modifying assessments.
(3) Reflections on successes and challenges: Included 'what worked well', e.g. new, creative assessment methods, student choice and input into assessment design, and those more difficult to resolve, e.g. managing marking load, and academic integrity.

Workload concerns, such as redesigning assessments while concurrently teaching, and marking assessments in short timeframes, permeated all themes.

Quotes are coded as follows: P (participant), HE (years of HE-teaching), C (extent of assessment change, s = significant; l = little; n = none) BMS (number of BM subjects taught).

Theme 1: Review for change

Academics required time to transition to ERT and adapt assessments. Participants without BM experience acknowledged the foundational benefits of BM when moving to ERT:

> Recent re-design of material to suit block model delivery helped a lot. All material including assessments were . . . shortened to suit intense block model delivery. Such material was easily adapted to the remote delivery. (P66 HE15+ Cs BMS0)

> Richer sense of knowing how units work; stronger connection between assessment and learning outcomes in BM; students and teacher can focus very intently for four weeks - I think all these things assisted the transition. (P88 HE15+ Cs BMS0)

> Teaching material was already packaged for electronic delivery. Practical exercises were easily converted to MatLab. (P73 HE15+ CI BMS3)

Academics teaching in the final year of the programme were less familiar with BM teaching. Some assessments, particularly workplace-based, involved considerable changes and required consultation and coordination between stakeholders:

> We redesigned tasks to allow for the lack of placement. I wrote out detailed explicit step by step instructions for the assessment task. I created a discussion space and answered questions about the task, and I encouraged other students to answer too. (P25 HE4 Cs BMS2)

> I mainly changed the requirements for the case study assessment as the students could not enter the workplaces to interview personnel nor was there scope for online interviews in the current climate. (P28 HE10 CI BMS0)

Breaking assessments into parts helped students manage their time and provided a sense of progress:

> Essentially, I have broken one problem-based assessment into a number of parts and tried to link them together. (P50 HE15+ CI BMS15+)

> I included two-part assessments. For example, listing scenarios and models that will be examined in stage 1, and then receiving feedback in preparation for stage 2 of the assessment task. (P63 HE15+ Cs BMS15+)

Since assessments sit within a context, participants applied pedagogical judgements when revising and weighting assessments. Such considerations consumed academics' time:

> Lesson plans had to be reviewed and reshaped for remote delivery, the amount of in-class small group work by students had to be 're-imagined' and a review of the assessment tasks had to be undertaken to ensure that they were still achievable and appropriate. (P86 HE15+ CI BMS4)

> The weighting of assessments changed, and I had more individual assessments, which were weighted more as students seemed to find group work more of a challenge online initially (P70 HE15+ CI BMS12)

Benefits of BM experience was clear in this comparative statement:

> [T]hat shift to block probably saved us in this situation. Certainly I had a better grasp on elements of the units I taught because of the block design - but I also had a better grasp on how any unit I was overseeing could be … doing this in semester mode would have been super hard. (P88 HE15+ CI BMS6)

Recent experiences of redesigning assessments for BM, proved advantageous (P66, P88). Examples were segmenting larger assessments (P50, P63) and modifying weighting (P70, P93). However, irrespective of the pedagogical approach used prior to COVID-19, all academics were challenged by the compressed timeframe for ERT transition.

Theme 2: Support – technology and people

Participants required support to prepare and implement assessments. Support was also necessary to understand and apply appropriate technologies. Furthermore, a quality

learning experience required off-campus connectivity considerations for students and academics:

> Differentiated the in-class group assessment to cater for those students whose technology was not reliable. (P80 HE10 Cl BMS0)

> I had to set up a suitable space at home for my teaching and ensure that I had a working web cam and microphone - as well as a better computer than the VU laptop that I have. Fortunately, I do have a fast and reliable broadband connection at home. (P86 HE15+ Cn BMS4)

Students' internet instability impacted ERT assessments. Changes had to be organised while teaching:

> The assessments were all assignments or presentations. In terms of the presentations, as some students had internet connectivity problems, I allowed them to pre-record using Panopto or other methods. Students were quite creative. (P62 HE15+ Cl BMS1)

> Assessments needed to be redesigned and communicated and new ways to deliver video content was required as streaming through the Zoom platform was unstable. (P38 HE10 Cs BMS1)

Participants identified software and assessment practices as areas for improvement and sites of effective connection:

> I feel the software tools we have could always be better, tools to allow brainstorming, cooperation feedback, assessment, information sharing, multimedia learning, creating of objects sharing of artefacts, recording of progress and achievements, sharing and learning. (P37 HE15+ Cl BMS0)

> I have used the video recorded feedback tool in VU Collaborate to 'speak' to students as I mark major assessments - effective for me and more personal for students. (P39 HE15+ Cn BMS0

Academics had to be mindful of students' technology skills when requiring unfamiliar tasks such as screen-sharing and pre-recording submissions:

> The written assessments were the same, the visual assessments and the video assessments were all the same. The presentations were the same but a few allowances had to be made for students as they learnt to share screens. (P26 HE5 Cl BMS4)

> The major change was a shift to [submitting] pre-recorded work, rather than real time assessment. This required a major upskill for teachers and students in software and hardware, and in tailoring rubrics, criteria and learning for these new contexts. We also had to be prepared to listen to suggestions and feedback from students about what worked and what needed tweaking. (P72 HE15+ Cl BMS0)

Participants identified processes supporting ERT transition; one referred to leadership, another noted the impact of small classes:

> The remote delivery checklist we were mandated to fill in and have signed by the [Faculty] Director (T&L) was a good idea. It forced us to think how to change our delivery and assessments to be aligned with a remote mode. (P84 HE15+ Cn BMS2)

> Working in classes of 35 made the transition successful in that there was an environment that facilitated academic staff to get to know and support all students. (P86 HE15+ Cn BMS4)

Working as a team provided support, benefiting assessment and contributing to student engagement:

> [A] block unit has to be the same across deliveries no matter who teaches it also means there's more collaboration and support between teaching staff - this also helped in the transition to online delivery. (P45 HE15+ Cl BMS4)

Participants identified the influence of L&T leadership roles (P84). They also highlighted that support was required to select assessment-appropriate technologies (P37, P38, P62) and facilitate students' technology use (P26, P72).

Theme 3: Reflections on successes and challenges

A common reflection on successes identified work undertaken for BM:

> [O]verhaul of units for block mode meant they were much more ready for this challenge (especially LMS resources) than they would have been three years ago. (P21 HE15+ Cl BMS8)

After reviewing and changing assessments, participants reflected on what worked well:

> Structuring assessment such that it provides incentives for students to undertake learning activities between classes from day one. (P23 HE15+ Cl BMS5)

> I found that the assessment tasks that required me to personally engage with students were the best (such as a verbal examination). (P31 HE2 Cs BMS0)

> I had to change one assessment (an exam) to suit the online delivery. As the students were required to undertake this test remotely and to minimise the tendency of copying from the textbook, the students were given case scenarios and were required to apply the theory and concepts they have been learning in order to answer these questions. (P20 HE7 Cl BMS0)

Academics found providing assessment variety and involving students in the assessment process was beneficial:

> I got students to come up with a way to present group work. They adapted a traditional PowerPoint presentation, to a group panel, like conducting a webinar, with a moderator and panellists, allowing competing views, and more in-depth discussion while covering the assessment criteria. (P52 HE5 Cl BMS4)

> Students were provided a variety of assessments, inclusive of writing assessments, creating an e-portfolio, creating a podcast and creating a proposal as a literacy expert. This variety was of benefit for the students' various learning abilities and strengths.(P88 HE15+ Cs BMS0)

Online quizzes were deemed to be successful for both formative and summative assessments:

> [O]nline quizzes ($2 \times 10\%$) with long windows for completion, and an option to complete multiple times worked well. This served as both a learning exercise and as a formative assessment for core content. (P65 HE10 Cs BMS3)

> In-class quizzes became online quizzes, use of question banks, time limited, forward movement through questions, shuffled questions, and random answers. (P68 HE15+ Cs BMS0)

ERT also acted as a catalyst for academics to make greater use of tools within the LMS to manage the assessment process:

> Another key practice that worked very well is detailed and considered feedback (forward feedback), using the rubrics and giving feedback directly in each assessment document and an overall and clear comment in the VU Collaborate feedback box. These additions worked very well. (P90 HE15+ Cl BMS0)

Some participants described heavy workloads to manage marking, and the need to consider marking implications of assessment strategies:

> The time required for marking is difficult to manage. This increase in time allocation [for marking] is due to the additional need to replace tests with other forms of assessment to preserve the integrity of the assessment. (P24 HE15+ Cs BMS0)

> Students should be required to attend a weekly Zoom session . . . [to] keep them on track and teachers could use a one hour session instead of many more hours responding to discussion boards". (P85 HE4 Cl BMS0)

> Some units were challenging in maintaining group work so marking individual submissions worked very well. Physical group work was also problematic, so digital submissions were required instead. (P81 HE3 Cn BMS2)

Some ERT choices were less successful. Understandably, academics were concerned about preparing appropriate assessments that maintain security and integrity:

> My unit was test heavy and I tried to maintain the integrity by re-weighting different pieces of work and making tests shorter. (P93 HE12 Cl BMS0)

> For some units that I coordinated that had a test, I had to ensure the test was open book and authentic and even then, some students managed to plagiarize 100%. (P62 HE15+ Cl BMS1)

Participants' choices were influenced by guesses about the pandemic duration:

> I chose synchronous delivery . . . Engineering colleagues chose to prepare asynchronous material and with subsequent deliveries of the same unit are finding that they have a lot more time. (P57 HE8 Cs BMS6)

Despite the variable successes, BM provided a hospitable ecosystem for responding to an emergency situation:

> Without a doubt the block is an advantage. We have a level of flexibility in terms of how we can sequence units within an eleven block academic year that other universities are unable to do. One unit at a time helped with sequencing units, especially in the sciences, education and health areas. Labs, placements and experiential activities can be rescheduled and 'theory' units brought forward [without] disruption to course progression. In terms of individual student progress, the underlying small group, high engagement nature of block model units helped to maintain a high level of student support and success. (P86 HE15+ Cl BMS4)

As expected, variances between academics who taught in BM and those with insignificant BM experience were revealed through reflective quotations. Participants with minimal or no BM experience were more likely to identify successes and challenges than highly experienced BM academics. Successful initiatives included assessment variety (P88), engaging students in decision-making related to assessments (P52), incorporating quizzes for formative and summative assessments (P65, P68), and applying technology to provide

Table 1. Research themes and categories for ERT principles.

Research themes	Categories for ERT principles
Theme 1 Review for change	Breaking up assessments into shorter tasks, creating multiple feedback opportunities through developmental assessment.
Theme 2 Support – technology and people	Connections with staff and students, and capitalising on technology.
Theme 3 Reflections on successes and challenges	Triumphs: teaching one subject at a time, providing diverse tasks, fostering student collaboration, concluding assessments within teaching periods, quickly implementing evidence-based changes informed by short evaluation cycles and embracing student solutions when responding to emerging fluidity. Unresolved challenges: managing marking load, and assurance of academic integrity.

prompt and personal feedback (P90). However, participants remained concerned about maintaining academic integrity (P20, P93, P62), including time pressures, and marking volumes (P24, P85).

Discussion

The timeframe in which changes must be made is compressed during crises. Academics therefore felt under pressure when re-imagining and re-designing assessments. The

Table 2. Derived principles mapped to research themes and academics' ERT experience.

Derived assessment-related principles	Analysis Themes	Examples relevant to ERT
P1. Developmental assessment with feedback.	Theme 1	Early identification of student misunderstandings. (P28, P50)
P2. Shorter, more frequent assessments.	Theme 1	Set pace for student progress. (P50, P63) Reduce marking time per submission. (P25) Deconstruct large tasks into smaller scaffolded tasks. (P63)
P3. Strengthen connections with student (through small classes).	Theme 2	Listen for student stress/distress, and respond with compassionate, integrity-based adjustments. (P39, P72, P80)
P4. Strengthen connections between academics.	Theme 2	Plan communication in teaching team to standardise responses and share solutions between cohorts. (P45) Facilitate organic, multi-level professional learning. (P72)
P5. Leverage available digital technologies.	Theme 2	Establish baseline of digital fluency prior to crisis. (P37, P84, P86) Acknowledge impact of variations in student digital connectivity. (P26, P62, P80)
P6. Finalise assessment in teaching period.	Theme 2	Formally confirm student progress before commencing next subject. (P84)
P7. Feedback to students within days of submission.	Theme 3	Timely and actionable feedback for scaffolded tasks. (P90)
P8. Provide task diversity, emulating authenticity.	Theme 3	Increase student internal motivation to engage with tasks. (P52, P88)
P9. Provide opportunities for student collaboration.	Theme 3	Ease students' social isolation. Increase student accountability and identity verification. (P52)
P10. One subject at a time.	Theme 3	Avoid cognitive load of fragmenting attention across multiple subjects. (P86)
P11. Use the short evaluation cycles to implement evidence-based improvements.	Theme 3	Hot-house implementation of evidence-based improvements. (P81, P90)
P12. Adapt to emerging fluidity and involve students in identifying solutions.	Theme 3	Identify different ways that students can demonstrate achievement of learning outcomes. (P20, P88) Encourage students to propose solutions when events negatively impact on progress. (P52)

imperative of implementing modifications prompted academics to intuitively reflect on their practice, identifying factors that facilitate and challenge adaptation. They were challenged to review assessment variety, feedback effectiveness, marking efficiency and academic integrity, while ensuring teaching continuity. Placement or laboratory-based assessments were especially challenging requiring consultation/collaboration with internal and external stakeholders.

Although many assessments needed reframing, the repetition of four-weekly iterations of BM more quickly reduced unknown challenges when compared to traditional semester cycles. Academics emphasised the value of supportive infrastructures and acknowledged their informal collegial support including L&T leadership guidance. They illustrated how individualised solutions best met their evolving challenges. These are distilled as practice-based principles in Table 2.

Distilling practice-based principles

The researchers developed practice-based principles by further interrogating research themes and participant quotations. Interim theme-based categories were proposed during the initial examination. See Table 1.

Subsequently, ERT principles were derived from those categories. Table 2 extends Table 1 by mapping derived principles to academics' ERT experience. This interrogation and categorisation was an extension to stage 5 of Braun and Clarke's (2022) reflexive analysis. Themed examples are linked to illustrative participant quotations.

By focusing on a principles-based approach, the paper distils insights to guide smooth transition into subsequent emergencies and draws lessons for academic practice. Principles are applicable across various settings, independent of constantly evolving online technologies.

A process-guided ERT environment framework

Our data illustrates the context-sensitive perceptions of successes and challenges within one IMS model. IMS are varied. Cleary et al. (2023), Dixon and O'Gorman (2019), Goode

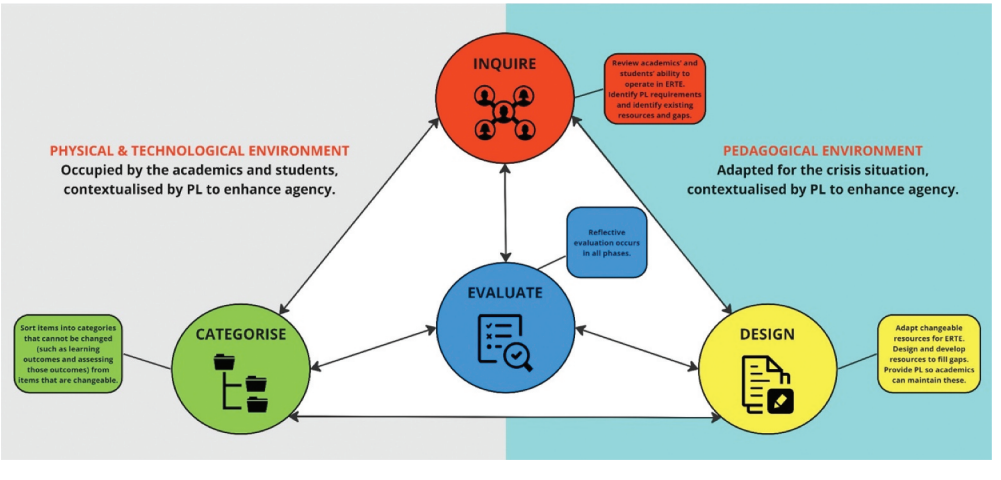

Figure 3. Modified ERT environment Framework. (Source: Cleary et al., 2023)

et al. (2022) Turner et al. (2021), and University of Suffolk (2021) confirm that responses must be tailored to suit each institution's context and environment. We propose a process-guided framework as a resource for any HE institution responding to an unfolding crisis (See Figure 3).

Within this framework, available resources are identified (*INQUIRE*). Elements that are modifiable in response to the changed environment are categorised (*CATEGORISE*). Use Table 2's principles to identify impactful modifications. Design appropriate solutions (*DESIGN*) – see examples in Table 2. These three processes are informed by on-going evaluations (*EVALUATE*) and shaped by institution-specific pedagogical, physical, and technological environments. Cleary et al. (2023) elaborate this framework. By capturing the ERT environment, our framework is valid for any mode of study.

Taking insights into the future

Since the nature of crisis is unpredictable, personal experiences in that crisis context must be evaluated early to efficiently adopt meaningful practice and policy modifications. We agree with Devlin and Samarawickrema (2022) forecasting increasing instabilities in the HE arena, and with Slade et al. (2022) that instabilities foster opportunities. Although our study is highly contextualised, it provides useful principles for future planning for BM which can be readily applied to non-intensive study modes. Much can be extrapolated from our experiences to inform the design and implementation of assessments especially to facilitate transitions into or out of a new crisis.

Whatever the discipline and levels of learning, priorities for future assessments include considerations such as accessibility, integrity, flexibility, equity and engagement. Accessibility is critical at times of crisis. Learning technologies that are institution-supported, easily available and cost-free, are vital in positioning institutions as 'dual-mode ready' (Roberts et al., 2022). Communication between teaching teams is critical to remain abreast of emerging assessment fluidity. While designing assessments that reduce opportunities for misconduct must be implemented, conversations about how students engage with academic integrity are foundational to establishing consensus of expectations.

The BM's shorter evaluation cycles facilitated implementation of evidence-based improvements allowing academics to review assessments, be flexible and quickly respond to a rapidly unfolding emergency (Chau et al., 2022). In such situations, the ability to be agile, providing alternative assessments or adapting ways of completing an examination is required. Difficult circumstances call for flexibility in submission dates.

Crisis situations exacerbate societal inequalities, therefore assessments must demonstrate equity at multiple levels. Assessments must be designed to maximise access, be transparent and fair, and support wellbeing. Supporting at-risk students can be informed by LMS analytics and big data to contextualise assessment results with other student activities. It is therefore critical for academics to routinely do more with assessment data, a requirement going beyond COVID-19. Assessments that foster equity by enabling peer-to-peer learning and networking, and community building that nurtures connections for wellbeing are valuable post COVID-19, and vital in the next crisis.

Although the specific effectiveness of a variety of assessments tasks was not reported, variety of technology-based assessments were perceived as advantageous in this study

for both efficiency and to engage learning. A dearth of research about the effectiveness of diverse assessment practices (O'Neill & Padden, 2022) remains a critical gap to be addressed before another crisis emerges.

Experienced academics know to balance student needs and 'mission critical' elements of a subject. Refreshed, enabling policies should guide this balance. Our study captures useful experiences and some initial lessons that are adaptable to varying contexts beyond IMS and beyond COVID-19.

Acknowledgments

We thank Associate Professor Trish McCluskey for her encouragement to undertake this study and the reviewers for their thought-provoking feedback.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Gayani Samarawickrema teaches into the Graduate Certificate of Tertiary Education and researches in the area of higher education, and learning and teaching in intensive modes of study. She works with colleagues on their curricula and assessments as they move their teaching into Block Mode.

Kaye Cleary is the Associate Director, Improving Learning and Teaching at Victoria University, Australia. She works across the University on the reaccreditation of courses and curricula as they move to Block mode, coordinates academic professional learning initiatives and steers multi-disciplinary design teams to support the transition to the VU Block Model.

Dan Loton is Editor in Chief of the International Journal of Applied Positive Psychology. His research focusses on factors that support wellbeing, and educational success for diverse student cohorts, including curriculum design and teaching approaches.

Trudy Ambler explores issues related to teaching and student experiences of learning. This research agenda includes teacher learning; teacher knowledge; students' learning; peer learning; first-year curriculum: mentoring; narrative inquiry; autobiographical inquiry; practitioner inquiry; research ethics; learning spaces and places.

Tomas Krcho is a Learning Designer who has led a design team on the transition to Block Mode study since its inception at Victoria University including modifications to courses during the COVID-19 disruptions. He also teaches in Block Mode.

ORCID

Gayani Samarawickrema http://orcid.org/0000-0003-4091-7027
Kaye Cleary http://orcid.org/0000-0002-9003-5084
Daniel Loton http://orcid.org/0000-0003-4106-0555
Trudy Ambler http://orcid.org/0000-0003-2654-6274
Tomas Krcho http://orcid.org/0000-0002-9969-0667

References

Al-Maqbali, A. H., & Hussain, R. R. (2022). The impact of online assessment challenges on assessment principles during COVID-19 in Oman. *Journal of University Teaching Learning Practice*, *19*(2), 73–92. https://doi.org/10.53761/1.19.2.6

Almossa, S. Y., & Alzahrani, S. M. (2022). Lessons on maintaining assessment integrity during COVID-19. *International Journal for Educational Integrity*, *18*(1), 19. https://doi.org/10.1007/s40979-022-00112-1

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage.

Chau, H., Jamei, E., & Li, M. (2022). Block mode delivery for studio design teaching in higher education. *Innovations in Education and Teaching International*, *60*(3), 346–356. https://doi.org/10.1080/14703297.2022.2062031

Cleary, K., Samarawickrema, G., Ambler, T., Loton, D., Krcho, T., & McCluskey, T. (2023). Transitioning to emergency remote teaching in a block model curriculum: A case study of academics' experiences in an Australian University. *British Journal of Educational Studies*, 1–22. https://doi.org/10.1080/00071005.2023.2248289

Conrad, D. L., & Openo, J. (2018). *Assessment strategies for online learning: Engagement and authenticity*. AU Press. https://doi.org/10.15215/aupress/9781771992329.01

Devlin, M., & Samarawickrema, G. (2022). A commentary on the criteria of effective teaching in post-COVID higher education. *Higher Education Research & Development*, *41*(1), 21–32. https://doi.org/10.1080/07294360.2021.2002828

Dixon, L., & O'Gorman, V. (2019). Block teaching – exploring lecturers' perceptions of intensive modes of delivery in the context of undergraduate education. *Journal of Further and Higher Education*, *44*(5), 583–595. https://doi.org/10.1080/0309877X.2018.1564024

Fletcher, R. B., Meyer, L., Anderson, H., Johnston, P., & Rees, M. (2012). Faculty and students' conceptions of assessment in higher education. *Higher Education*, *64*(1), 119–133. https://doi.org/10.1007/s10734-011-9484-1

Gamage, K. A., Silva, E. K. D., & Gunawardhana, N. (2020). Online delivery and assessment during COVID-19: Safeguarding academic integrity. *Education Sciences*, *10*(11), 301. https://doi.org/10.3390/educsci10110301

Goode, E., Syme, S., & Nieuwoudt, J. E. (2022). The impact of immersive scheduling on student learning and success in an Australian pathways program. *Innovations in Education and Teaching International*, 1–13. https://doi.org/10.1080/14703297.2022.2157304

Guangul, S. A. H., Khalit, M. I., Khidhir, B. A., & Khidhir, B. A. (2020). Challenges of remote assessment in higher education in the context of COVID-19: A case study of middle east college. *Educational Assessment, Evaluation and Accountability*, *32*(4), 519–535. https://doi.org/10.1007/s11092-020-09340-w

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, *3*. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Hosseini, M. M., Gunawardena, E., & Ruzgar, N. S. (2021). Online assessment in a business department during COVID-19: Challenges and practices. *The International Journal of Management Education*, *19*(3), 100556. https://doi.org/10.1016/j.ijme.2021.100556

Kelly, L. (2021, October 17). Melbourne to ease world's longest COVID-19 lockdowns as vaccinations rise. *Asia Pacific Reuters* October 17 https://www.reuters.com/world/asia-pacific/melbourne-ease-worlds-longest-covid-19-lockdowns-vaccinations-rise-2021-10-17/

Kuiper, A., Solomonides, I., & Hardy, L. (2015). Time on task in intensive modes of delivery. *Distance Education*, *36*(2), 231–245. https://doi.org/10.1080/01587919.2015.1055058

Lincoln, Y. S., & Guba, E. G. (2016). *The constructivist credo*. Routledge.

Loton, D., Stein, C., Parker, P., & Weaven, M. (2022). Introducing block mode to first-year university students: A natural experiment on satisfaction and performance. *Studies in Higher Education*, *47*(6), 1097–1120. https://doi.org/10.1080/03075079.2020.1843150

Lynam, S., & Cachia, M. (2018). Students' perceptions of the role of assessments at higher education. *Assessment and Evaluation in Higher Education*, *43*(2), 223–234. https://doi.org/10.1080/02602938.2017.1329928

Male, S., Baillie, C., Hancock, P., Leggoe, J., Macnish, C., & Crispin, S. (2017). *Intensive mode teaching good practice report*. https://unistars.org/papers/STARS2017/03C.pdf

McDonald, P. L., Harwood, K. J., Butler, J. T., Schlumpf, K. S., Eschmann, C. W., & Drago, D. (2018). Design for success: Identifying a process for transitioning to an intensive online course delivery model in health professions education. *Medical Education Online*, *23*(1), 1415617. https://doi.org/10.5204/ssj.v10i1.1148

Meccawy, Z., Meccawy, M., & Alsobhi, A. (2021). Assessment in 'survival mode': Student and faculty perceptions of online assessment practices in HE during COVID-19 pandemic. *International Journal of Educational Integrity*, *17*(1), 16. https://doi.org/10.1007/s40979-021-00083-9

Montenegro-Rueda, M., Luque de la Rosa, A., Sarasola Sanchez-Serrano, J. L., & Fernandez-Cerero, J. (2021). Assessment in higher Education during the COVID-19 pandemic: A systematic review. *Sustainability*, *13*(19), 10509–. https://doi.org/10.3390/su131910509

Nerantzi, C., & Chatzidamianos, G. (2020). Moving to block teaching during the COVID-19 pandemic. *International Journal of Management and Applied Research*, *7*(4), 482–495. https://doi.org/10.18646/2056.74.20-034

O'Neill, G., & Padden, L. (2022). Diversifying assessment methods: Barriers, benefits and enablers. *Innovations in Education and Teaching International*, *59*(4), 398–409. https://doi.org/10.1080/14703297.2021.1880462

Raponi, K., Samarawickrema, G., Everett, G., England, L., & Galloway, T. (2021). Academics embrace disruption: Lessons learned teaching First Year law during a pandemic. *Legal Education Review*, *31*(1), 27–40. https://doi.org/10.53300/001c.27478

Roberts, P., Scott, S. V., Cranney, J., Cumming, T. M., Angstmann, E., Nehme, M., & Watson, K. (2022). Design principles for dual mode readiness in an uncertain future. *Innovations in Education and Teaching International*, 1–11. https://doi.org/10.1080/14703297.2022.2147094

Samarawickrema, G., & Cleary, K. (2021). Block mode study: Opportunities and challenges for a new generation of learners in an Australian University. *Student Success*, *12*(1), 13–23. https://doi.org/10.5204/ssj.1579

Şenel, S., & Şenel, H. C. (2021). Remote assessment in higher Education during COVID-19 pandemic. *International Journal of Assessment Tools in Education*, *8*(2), 181–199. https://doi.org/10.21449/ijate.820140

Slade, C., Lawrie, G., Taptamat, N., Browne, E., Sheppard, K., & Matthews, K. E. (2022). Insights into how academics reframed their assessment during a pandemic: Disciplinary variation and assessment as afterthought. *Assessment and Evaluation in Higher Education*, *47*(4), 588–605. https://doi.org/10.1080/02602938.2021.1933379

St-Onge, C., Ouellet, K., Lakhal, S., Dubé, T., & Marceau, M. (2022). COVID-19 as the tipping point for integrating e-assessment in higher education practices. *British Journal of Educational Technology*, *53*(2), 349–366. https://doi.org/10.1111/bjet.13169

Tuah, N., & Naing, L. (2021). Is online assessment in higher education institutions during COVID-19 pandemic reliable? *Siriraj Medical Journal*, *73*(1), 61–68. https://doi.org/10.33192/smj.2021.09

Turner, R., Webb, O. J., & Cotton, D. R. E. (2021). Introducing immersive scheduling in a UK university: Potential implications for student attainment. *Journal of Further and Higher Education*, *45*(10), 1371–1384. https://doi.org/10.1080/0309877X.2021.1873252

University of Suffolk. (2021) . *Block and blend learning and teaching: An evaluation of the University of Suffolk pilot of block and blended approaches to learning and teaching*.