

The Curious Case of Blended Learning: An Evaluation of a Curriculum Innovation in the Global Mental Health Master's Programme

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Abstract

Background: This study aimed to evaluate students' satisfaction, perceived utility and engagement with a range of Blended Learning (BL) resources, in the context of the staged introduction of BL within the MSc Global Mental Health Programme.

Methods: A descriptive mixed methods design was employed. An electronic questionnaire was completed by 18 (90%) of the enrolled on-campus students. Eight of them opted to participate in a collaborative workshop aiming to corroborate and expand upon the questionnaire findings, and generate ideas for optimising the BL components.

Results: Overall, students were satisfied with the quantity and usefulness of the BL materials. Specifically, the easy access to, and diversity of, learning activities were recognised as instrumental in stimulating innovative ways of thinking, in addition to improving subject-specific knowledge. Students starkly diverged according to their reported use of materials as the foundation of independent study as well as perceptions of the difficulty level of the modules. Students reported lacking the confidence and knowledge regarding integrating the breadth of learning resources effectively to support their learning. Collaboratively, the students helped generate actionable programmatic changes aimed at improving the curriculum cohesion and enhancing learner engagement.

Conclusion: Systematic evaluation of the initial stages of BL is critical. This study demonstrated the complexities of the staged introduction of BL in terms of ensuring learning efficiency, student satisfaction, learner development and programme cohesion. This study enabled the identification of strategic and feasible high-impact areas for optimising BL, and transforming them into stages of change.

Keywords: BLENDED LEARNING, BLENDED TEACHING, STUDENT ENGAGEMENT, EVALUATION

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Introduction

Blended Learning aims to combine face-to-face and online activities in a seamless and complementary flow of learning thus enhancing the student experience and improving knowledge exchange (1). The existing empirical literature, however, has

shown that the effectiveness of Blended Learning is not simply a matter of combining face-to-face resources with information and communication technologies (2). This has led some authors such as Oliver and Trigwell (3) to distinguish between *blended teaching* and *Blended Learning (BL)*. Blended teaching simply refers to the combination of technology-/computer-assisted and web-based instructional approaches with traditional face-to-face teaching (3). BL, on the other hand, is a more learner-focused concept referring to the extent to which the incorporation of additional online

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tasks and asynchronous lectures complements the existing on-campus face-to-face lectures and tutorials in a manner that optimises student performance, engagement and satisfaction. It is crucial, therefore, to assess the effectiveness of the interface between different instructional designs, informed by the BL pedagogy and technologies, and the mechanisms of student learning within the Virtual Learning Environment (VLE). As argued by Daniel (4), BL can be easily co-opted to suit different organisational contexts and politics, often leading to diminished transparency as to *how*, *when* and *why* it occurs (4).

BL is a multi-dimensional phenomenon. It has been widely recognised that the use of BL resources may produce changes in learning patterns, attitudes and practices (5, 6). Critical to those processes are students' perceptions, motivations and attitudes (6). To efficiently and robustly embed BL into both the curriculum design and student learning practices, an iterative cycle of design, development, implementation and evaluation has been recommended (7). Citing Duhaney (7), Alammary and colleagues (8) state that *'[a]rriving at a good balance between online and face-to-face components is a result of a gradual process of introducing new resources or techniques to replace the existing components and then evaluating whether the use of these new resources or techniques is helping students in achieving the learning targets.'* (p. 446). Despite this recognition, relatively little guidance exists as to how to optimise the adoption and early implementation of BL (8).

Institutional and Programmatic Context

The MSc Global Mental Health (GMH) Programme was launched as an on-campus course in 2012/2013 and as an online distance learning (ODL) course in 2016/2017. A range of materials, including asynchronous digital lectures, quizzes, reading and reflection tasks, forum activities, in addition to audio-visual

resources, were developed for use on the ODL courses. A decision was made to gradually introduce BL into five of the seven on-campus courses. This curriculum innovation aimed to harmonise content, combine the pedagogical strengths of online and face-to-face learning activities and ensure equality of access for all students. A sizable proportion of the student cohort were international or did not always have English as their first language. In addition, they had highly diverse educational backgrounds, some were registered with the University Disability Service and many were in part-time employment. BL offers more flexibility and accessibility compared to traditional instructional designs making it a useful strategy to ensure the diverse needs of the students were met.

Study Aims

Informed by the rapidly expanding educational empirical literature on BL practices, and guided by institutional guidance and principles of best practice (9), the current study aimed to evaluate the on-campus students' satisfaction and engagement with the BL materials within the GMH programme, with a secondary aim being to develop best practice guidance for the staged introduction of BL in postgraduate taught courses in context of the current institutional environment.

Methods

Study Design

A descriptive mixed methods design (10) was employed to obtain a holistic and contextualised view of the students' satisfaction and engagement with the BL resources. To achieve this, this study drew upon multiple sources of evidence including quantitative and qualitative data from a questionnaire, as well as qualitative data from a participatory workshop. An online questionnaire was used to gather information regarding views on the use of BL resources. The questionnaire contained binary, Likert-type and open questions.

Following completion of the questionnaire, the students could self-nominate to participate in a structured workshop led by a member of the programme team. Ethics approval was granted by the College of Medical, Veterinary & Life Sciences Ethics Committee (Application Number: 200170091).

Sample Characteristics

18 (90%) of the 20 eligible on-campus students completed the questionnaire. The sample consisted of seven (39%) United Kingdom students, five (28%) European Economic Area students and six (33%) international students, of whom ten (56%) were native English-speakers. Half (nine) of the students had had access to BL resources in a prior degree. Eight students self-nominated to participate in the workshop. Eight places were available in total. The first eight students who expressed an interest in participating were invited.

Data Collection and Analysis BL Questionnaire: Rationale, Development and Administration

At the end of the University's teaching for the academic year, a link to the electronic questionnaire, hosted on the Bristol Online Survey web platform (<https://www.onlinesurveys.ac.uk/>), was emailed to all eligible students. This questionnaire could be completed independently or at the end of a specified teaching session. The online questionnaire aimed to elicit information about a wide range of engagement activities and attitudes that students exhibited in relation to the BL materials, within and across the different programme modules. Students' engagement with the variety of learning materials offered in each of the seven taught modules was explored.

The questionnaire elicited students' demographic information; general views of the incorporation of BL into the programme and their ease of engagement with the online materials; specific views of the BL materials offered in each of the taught modules;

experience with, and perceived usefulness of, the different types of learning materials provided (e.g. quizzes, note-taking activities, podcasts, digital lectures, forum tasks); relevance to the University of Glasgow's Graduate Attributes (See <http://www.glasgow.ac.uk/attributes>); general reflections on the structure and delivery of BL resources in the programme; timing of resource availability and their perceptions of the utility of these resources.

The content and organisation of the questionnaire were underpinned by a multi-dimensional view of the transition to BL (11) by acknowledging the potential influence of multiple factors such as accessibility, interactivity, benefits for learning, and engagement/motivation. This theory-based approach ensured the comprehensiveness of the questionnaire (construct and content validity); (12). A multi-step, iterative process was implicated in the development of the questionnaire domains, subdomains and individual items. A review of available student feedback on the course content and the students' learning experience, in addition to available Moodle engagement analytics, was carried out by the Programme team. This helped identify key areas that were targeted for clarification by the questionnaire. A consensus approach involving teaching staff, administrative staff and the digital education team was used to ensure the questionnaire contains clear, unambiguous and non-leading questions (expert validation; face validity; (12). Finally, a Programme alumnus (the second author) reviewed the draft questionnaire, which offered further validation.

BL Workshop: Rationale, Development and Administration

The workshop aimed to further elicit emerging themes arising from the questionnaire, expand on the quantitative findings and develop the course in a learner-directed manner (13). A mix of projective, generative and reflective techniques was employed, which helped the

students generate new ideas to help improve the structure of the courses and offer context and clarification of the emergent findings from the questionnaire. To help structure the workshop session, the programme team had conducted a scrutiny exercise, which detailed the activity types and quantities reflected in the weekly content of each course. The activity types recorded included: asynchronous lectures, Video / Podcast / Radio resources, Glossary Activities, Quizzes, Aropā tasks, Padlet activities, Virtual classroom resources, forums and reading / reflection activities. The data generated were presented to the students, who were invited to comment on the balance of resources and the value of the different types of materials. The structured presentation of themes informed by the scrutiny exercise and the use of visual elicitation triggers stimulated discussion and encouraged reflection.

In addition, evaluation techniques were applied inspired by Cowan and George's (13) guidance including the 'letter to next year's students' and the 'post-it' approach. Students independently ranked their preferences for particular courses and material types using post-its and these were used as their point of reference during discussion of related topics, and also was collated as quantitative data.

A member of the project team (the first author), unknown to the students, conducted the workshop with an independent staff member to avoid bias. During the session, notes were taken by both facilitators. In addition, the discussions were audio-recorded and re-listened to after the workshop (by the first author) to ensure no information was missed or misrepresented. The independent facilitator verified the summary notes to ensure objectivity and transparency. Participant characteristics were not recorded for the workshop to ensure that anonymity was maintained.

Data Analysis

The questionnaire data were analysed using descriptive statistics in Microsoft Excel. The open-ended questionnaire data as well as the

workshop data were analysed by hand by the first author using content analysis and qualitative description (14). The theming and interpretation of the qualitative workshop data were verified by the independent facilitator to ensure reliability and to minimise bias. The employment of multiple data collection methods enhanced the credibility, clarity and explanatory power of the findings, in line with the principle of *method triangulation* (15).

Results

In this section, the findings from the online questionnaire and the participatory workshop are presented synergistically under five domains: (a) experiences with and approaches to engagement with online resources; (b) areas of satisfaction; (c) optimising the student experience, their ease of engagement and satisfaction; (d) transferable skills acquisition; and (e) quantity and timing of the online resources.

Experiences with and Approaches to Engagement with Online Resources

The students were asked about their overall experience of, and attitudes towards, the learning materials offered through the VLE (Moodle). While half of the students had acquired the skills necessary to incorporate the BL materials into their learning prior to commencing the programme or during the first few weeks of the programme, five (28%) reported having tried but failed to fully establish the required set of skills, and three (17%) decided not to integrate Moodle materials into their learning whatsoever.

If re-starting the course, half of the students (n=9) stated that they would approach Moodle differently with the knowledge that they subsequently gained in the programme, whereas the other half (n=9) stated they would not. When prompted to expand on their answers, some students explained that they would engage more proactively with the

Moodle resources, for example by collecting reading materials ahead of time, familiarising themselves with the resources available, and exploring resources of interest rather than focusing solely on assignment completion.

In four of the courses, most students found the difficulty level when trying to attain the ILOs to be easier or similar to their other study experiences (Figure 1). In contrast, at least half of the students reported this process to be more challenging for three of the courses. With regards to the perceived usefulness of the learning materials by type, asynchronous lectures, note-taking / reflection activities, glossary tasks and external audio-visual materials such as videos, podcast and radio excerpts, were considered the most useful (Figure 2). Variations between students' responses were considerable, indicating that none of the resource types was perceived as unanimously useful. Through discussions in the workshop, it became apparent that in-class discussions and online forums were considered particularly useful for engaging with peers and with the subject content. Several of the students explained they had not been aware of quizzes as part of the resources. Those who completed the quizzes reported them as reassuring and helpful (Figure 2). Aropä (a peer-assessment software) was only used once or twice by most students, whose attitudes towards it were generally unfavourable. This finding was explored further at the workshop and it was found that students reported feeling intimidated with the process of engaging with an unfamiliar web platform.

Equivocal data were also found in relation to the frequency of use of the different learning materials. Overall, the students were more likely than not to engage with note-taking activities, asynchronous lectures and videos. Responses to the remainder of resource types-glossary activities, quizzes, forum activities, Padlet and Aropä activities-were more inconsistent (Figure 3). For instance, while 10 students engaged rarely or never with forum activities, seven stated they

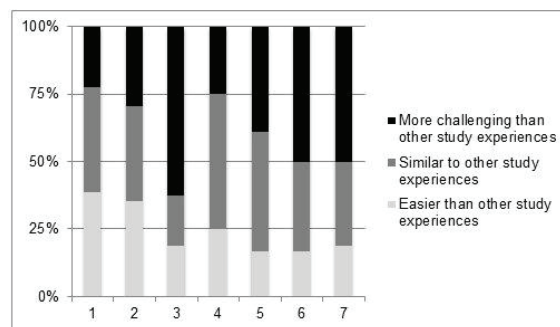


Figure 1: Students' perceived ease of engagement with the seven courses in the Programme (Note: The numbers from 1-7 correspond to the courses of the programme.)

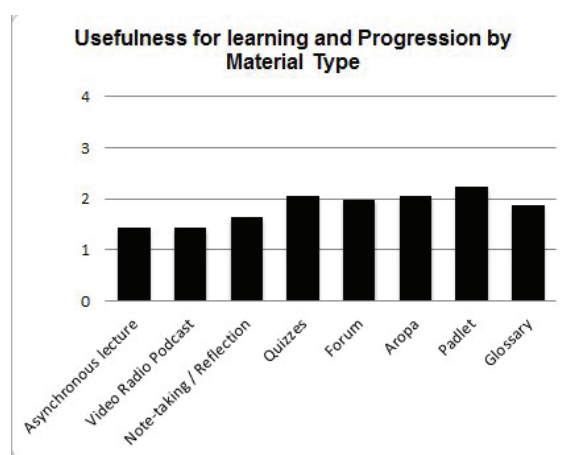


Figure 2: Students' perceived usefulness of each material type to support learning and progression (4-very useful; 0-not useful at all)

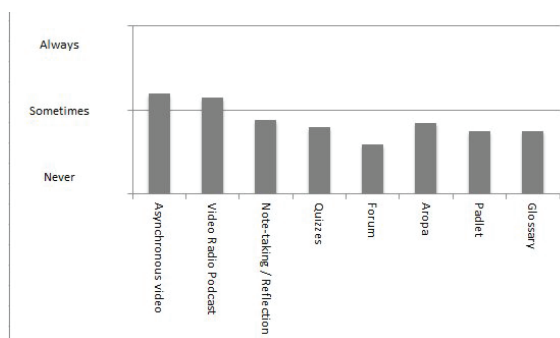


Figure 3: Students' average reported frequency of use by material type.

engaged sometimes (n=6) or often (n=1) with this type of activity. With regards to the perceived usefulness of the learning materials by type, videos, asynchronous lectures, and note-taking/reflection activities were found overwhelmingly to be useful. The students were divided as to usefulness of the rest of the learning activities such as Aropä activities,

quizzes, forum activities, glossary activities and Padlet activities.

Where BL materials were available, students differed in their reported use of these as the foundation of their independent study. Almost two-fifths of the students (n=7, 39%) reported using the Moodle resources 20% or less of the time. All but one of the others (n=10, 56%) used the available Moodle activities as the foundation for their study 20-60% of the time, with the final student (6%) indicating that 60-80% of their study time involved engagement with the online activities and resources offered on Moodle. When asked about their engagement with resources, most students (n=11, 61%) indicated that they were selective about the types of activities they engaged with. Similarly, whilst engaging with the course content and associated coursework, just over half of the students (n=10, 56%) reported having a stable rate of engagement with Moodle, with around a quarter reporting an increase (n=5, 28%) and 17% (n=3)-a decrease. Several students (both in the questionnaire and during the workshop) stated they prioritised certain resources over others when progressing through the modules and completing the assignments. Among the commonly mentioned rationale behind learning materials selectivity included time efficiency, convenience to use while doing non-academic everyday activities such as exercising, as well as the perceived relevance and usefulness of the content.

Although the students could access online induction, they suggested that a session at the start of semester specific to these courses, focusing on how to use and get information from Moodle, would be helpful. One student, for instance, found engaging with Moodle challenging and, despite seeking clarification from staff and peers, continued to struggle, however, embarrassment led them to keep their difficulties to themselves. During the workshop, it was concluded that a solid foundation was necessary to prevent students from being put off by the resources because of perceived complexity. The students

clarified which skills they believed were the most important to establish, for instance, information literacy skills and knowledge of the different online repositories. Crucially, the workshop participants highlighted that their focus on assignment completion determined how and when they engaged with Moodle, and which learning materials they prioritised.

Areas of Satisfaction

The students expressed an appreciation of a number of aspects of the BL resources. The overall layout of Moodle was considered appealing, colourful and professional looking. The ease of access to, and diversity of, learning activities were appreciated and recognised as means of facilitating innovative ways of thinking. Online reading lists and featured readings were recognised as useful to guide their progression through the courses. One respondent highlighted the utility of forum discussion for maintaining their engagement with the module. During the workshop, it became apparent that external audio-visual resources, such as TED Talks, podcasts and documentary clips, were considered useful as they provided emotional content, which provided helpful context for wider learning and acted to inspire and motivate. The students appreciated having multiple options of resource type for each lecture (asynchronous lecture, PDF of lecture slides, PDF version of On Campus teaching, and audio as a single file).

Optimising the Student Experience, their Ease of Engagement and Satisfaction

Students were asked about how relevant they perceived the learning materials for each course to be for attaining the Intended Learning Outcomes (ILOs). Responses to this subset of questions diverged significantly within and across modules. Across modules, the majority of students considered the Moodle course content to match the ILOs well, very well or reasonably well. On average, 67% of the students selected one of those three

options. The remainder of respondents, 33%, on average, across modules, considered ILOs not to be very well, or not at all, matched with the Moodle content. No trends were apparent when comparing the responses to the different courses. A general trend was observed with students who considered ILO alignment to be poor for one module also reporting this to be the case for other modules.

During the workshop, students identified several barriers to optimally utilising the online learning materials. Several students highlighted issues related to both the structure and organisation, and the content of the online learning materials. Specifically, the often demanding volume of learning content and the formative and/or optional nature of online learning tasks meant decreased motivation to integrate those into their learning. To overcome this, some of the students suggested making at least some online tasks compulsory, or at least formally linking the learning tasks for the summative assessments within each module; tracking and incentivising student activity on discussion forums; and/or strategically presenting online forum discussion topics/questions that are engaging/interesting.

Transferable Skills Acquisition

In addition to exploring how ILOs were attained, students were asked about the role of BL materials in their transferable skills development. 14 students identified graduate attributes they believed were being advanced through the learning activities offered. Four other respondents indicated they were 'not sure' about which graduate attributes were being advanced. The four graduate attributes recognised as most relevant were 'independent and critical thinkers' (n=10, 71%), 'reflective learners' (n=9, 64%), 'investigative' (n=8, 57%), and 'effective communicators' (n=8, 57%).

Quantity and Timing of the Online Resources

The questionnaire assessed another two aspects of utility- timing of introduction and

the quantity of online materials. Students were asked about their preferred time of introduction of learning materials relative to the time of commencement of the respective module. The majority (n=10, 56%) indicated a preference for all materials to be available at the start of the course. Regarding the perceived appropriateness of the quantity of learning materials offered, across the blended modules, on average, 77% of responses were 'about right', 1% - 'too much' material and 3% - 'too little'. No clear trends emerged when considering responses to specific courses.

Considerable discussion during the workshop focused on *how* students could engage with Moodle more effectively. To illustrate, the students requested that the information be structured in a way that makes resources easy to find and more navigable by, for instance, including a roadmap for all materials in a given module or a week. Clearer instructions and details about the type of learning activities included in a given module or a week could also help students prioritise focusing on essential versus non-essential activities.

Discussion

This descriptive mixed methods study focused on a dimensional approach to the evaluation of the staged introduction of BL into a taught Master's programme. The study aimed to assess the on-campus students' satisfaction and engagement with, and attitudes towards, learning material types, the BL environment and curriculum organisation in the programme. Students identified a range of best practice elements, which will be reviewed and applied consistently across courses to optimise the student experience. In addition, a number of developments generated by the evaluation will be implemented in the next academic year. This aims to optimise BL cohesion and to facilitate student engagement through a cyclical process of periodic monitoring, evaluation, generation of improvement opportunities, and implementation, in line

with participatory, process-oriented quality assurance frameworks for e-learning in higher education (HE) (16-19).

Exploring the students' BL engagement experiences highlighted the areas of the programme students consider to be most difficult and offered clarification on challenges faced by students when working with BL resources. The flexibility offered by the BL resources was valued, in line with previous research (1, 20). It was apparent that the role of BL resources in independent study was variable. One potential explanation for this observation could be that the students lacked the confidence and motivation to engage with the online materials. Given that one-third of the students felt inadequately equipped to optimally engage with the VLE and its wealth of learning materials, the need to incorporate enhanced and explicit instruction about navigating Moodle was highlighted. Future students are likely to benefit from targeted orientation about blended and online learning during the induction week (11). Such orientation should address how online learning differs from classroom learning, outline the benefits of both learning modalities, and offer learning resources and strategies (21). Students suggested that there was value in developing accessible in-class and online resources which outline how to engage with various Moodle activities and how to effectively prioritise workload. Those efforts will also ensure an equitable environment for all learners regardless of prior experience with online teaching courses.

The feedback from students also demonstrated the need to optimise the use of online discussion forums. Online discussion forums provide invaluable opportunities for distance and on-campus learners alike to engage in collaborative, cooperative or constructivist thinking (21). This has prompted the programme team to explore options to understand better how to promote communication (22) and to begin restructuring forum questions to ensure they are interesting,

provocative, attention-getting and conducive to a fruitful discussion.

The utility of BL for enhancing both the effectiveness and efficiency of meaningful learning experience has been reported by others (1, 23). The current findings broadly cohere with such existing evidence. The majority of students reported that the quantity of resources was appropriate and supported the acquisition of the ILOs reasonably well. It was requested that learning materials be available as early in the course as possible and efforts will be made to release resources well in advance in future presentations. Coherence and constructive alignment within the BL resources appeared to be valued by students, as was observed by Suliman et al (23). Finally, the students recognised the utility of the online learning materials in developing a range of transferable skills such as reflective skills, investigative skills and critical thinking skills. However, not all of the graduate attributes were routinely identifiable to students. As formative activities are developed and streamlined, their association with the graduate attributes will be made explicit to students to help them recognise their skill attainment.

Students requested that the interaction between physical lectures and additional resource be made more transparent and that guidance be provided about which online resources are best placed to support in-class learning and preparation for assignments. A proportion of the students reported they tended to prioritise the learning resources they engaged with based on their perceived relevance to the summative assignments within that course, and to the respective set of ILOs. This finding echoes evidence on the profound influence of the (perceived) demands of assessment on learning practices, commitment and effort (e.g. (24). Thus, the need for 'constructive alignment' (25) between online resources, assessments and intended learning outcomes was emphasized.

Furthermore, making the VLE more engaging and navigable, students reported, could be

accomplished by incorporating clear guidance (e.g. a roadmap; useful tips; synopses) into the Moodle content. This perceived area for improvement demonstrated the importance of increasing the *teaching presence* (26) within the VLE to provide instructional management regarding optimal use of online resources.

Collectively, the current findings enabled the programme team to identify potential '*high-impact areas*' or aspects of BL that students place the most emphasis on in deciding upon their degree of engagement with the resources. For instance, establishing coherence between the in-class and the online learning activities may improve students' engagement with BL materials. Also, shortlisting a core and/or compulsory set of online learning tasks may increase engagement with the online materials as well as the degree to which the students integrate various learning environments and learning modalities into their studies. Altogether, the high-impact areas identified through this research will target either a) the removal of barriers to a productive and satisfying BL experience, or b) the optimisation of course structure elements that are likely to have the greatest impact on learning and the student experience. Streamlining the curriculum improvements following these findings is likely to help bridge the observed divide between blended teaching and BL—a 'blind spot' highlighted by several educational researchers (e.g. (3)).

The findings from this study carry several implications for optimising BL curriculum designs in higher education (HE). The findings produced some evidence about the usefulness of an *incremental blending* approach to restructuring traditional course delivery (7). A thoughtful strategy for initiating the blend relies on a gradual enhancement of the skill sets and comfort levels of teaching staff, support staff and learners (7, 27). Ongoing evaluation of initial outcomes and processes should be embedded from the outset (28). Arguably, instructors should strive to develop a blending mix that optimally benefits students'

diverse learning preferences (7). Therefore, understanding the processes of student engagement and the critical determinants of their learning satisfaction and outcomes should accompany all stages of curriculum redesigning.

Study Limitations

The current study is necessarily limited in its scope and generalisability due to its fairly narrow context—one postgraduate taught programme in UK HE. Also, because of the exploratory and applied nature of this research, a relatively small number of learners were engaged (n=18). Future research should include a larger number of postgraduate students from subsequent program years or across similar programmes. Another limitation concerned data collection methods. The content and structure of both the questionnaire and the workshop were co-designed by the authors. This may have introduced some inadvertent biases in constructing the questionnaire items. The workshop was facilitated by the first author who was involved in the launch of the ODL course. Confirmation bias could have exerted an effect, as the first author could have tended to search for, interpret, focus on and remember information in a way that confirms preconceptions. Finally, it was impossible to definitively ascertain whether the reported levels of satisfaction and engagement were influenced by the features of the BL environment as opposed to by the students' motivation and time management skills, which poses a threat to the validity of the findings.

Conclusion

The current descriptive mixed methods study of student perceptions of and behaviours towards a diverse mix of blended courses in the GMH MSc programme revealed a complex mosaic of student engagement practices and attitudes towards the VLE. On the whole, the students were satisfied with the quantity and usefulness of the learning materials offered in the BL modules and

recognised the utility of the learning materials in developing a range of transferable skills. Students starkly diverged according to their reported use of these materials as the foundation of their independent study and perceptions of the level of difficulty of the modules. The results indicate that although students recognised the utility of BL and of online resources, they identified several barriers to effective learning as well as several specific programmatic issues that prevented them from optimally engaging in BL. Those results informed an ongoing cyclical approach to BL development, diffusion and evaluation in the programme.

This study demonstrated the complexities of the introduction of BL in relation to learning efficiency, student satisfaction, learner development and programme cohesion. Our multi-method, reflexive and participatory approach to the evaluation of the utility of BL was helpful in developing best practice guidelines alongside specific programmatic changes necessary to enhance student experience, both in the short-term and in the long-term. This study was instrumental in pinning down several strategic and feasible high-impact areas for optimising blended teaching as well as BL outcomes, and transforming them into stages of change.

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Conflict of Interest

The authors declare no conflict of interest.

References

1. Garrison DR, Kanuka H. Blended

learning: Uncovering its transformative potential in higher education. *Internet High Educ.* 2004;7(2):95-105. Doi: 10.1016/j.iheduc.2004.02.001

2. George-Walker LD, Keeffe M. Self-determined blended learning: a case study of blended learning design. *Higher Education Research & Development.* 2010;29(1):1-13. Doi: 10.1080/07294360903277380

3. Oliver M, Trigwell K. Can 'blended learning' be redeemed? *E-learning and Digital Media.* 2005;2(1):17-26. Doi: 10.2304/elea.2005.2.1.17

4. Daniel JS. Making sense of blended learning: Treasuring an older tradition or finding a better future [Internet]. Ontario: Contact North-March; c2016 [cited 2016 Nov 2]. Available from: <https://teachonline.ca/tools-trends/blended-learning-successful-design-delivery-and-student-engagement/making-sense-blended-learning-treasuring-older-tradition-or-finding-better-future>

5. Cooner TS. Creating opportunities for students in large cohorts to reflect in and on practice: Lessons learnt from a formative evaluation of students' experiences of a technology-enhanced blended learning design. *Br J Educ Technol.* 2010;41(2):271-86. Doi: 10.1111/j.1467-8535.2009.00933.x

6. Ginns P, Ellis RA. Evaluating the quality of e-learning at the degree level in the student experience of blended learning. *Br J Educ Technol.* 2009;40(4):652-63. Doi: 10.1111/j.1467-8535.2008.00861.x

7. Duhaney DC. Blended learning in education, training, and development. *Performance Improvement.* 2004;43(8):35-8. Doi: 10.1002/pfi.4140430810

8. Alammery A, Sheard J, Carbone A. Blended learning in higher education: Three different design approaches. *Australasian Journal of Educational Technology.* 2014;30(4):440-54. Doi: 10.14742/ajet.693

9. Adekola J, Dale VH, Gardiner K. Development of an institutional framework to guide transitions into enhanced blended

- learning in higher education. *Research in Learning Technology*. 2017;25. Doi: 10.25304/rlt.v25.1973
10. Johnson RB, Onwuegbuzie AJ. Mixed methods research: A research paradigm whose time has come. *Educ Res*. 2004;33(7):14-26. Doi: 10.3102/0013189X033007014
 11. Adekola J, Dale VH, Gardiner K, Fischbacher-Smith M. Student transitions to blended learning: an institutional case study. *Journal of Perspectives in Applied Academic Practice*. 2017;5(2):58-65. Doi: 10.14297/jpaap.v5i2.273
 12. Artino AR, Jr., La Rochelle JS, Dezee KJ, Gehlbach H. Developing questionnaires for educational research: AMEE Guide No. 87. *Med Teach*. 2014;36(6):463-74. Doi: 10.3109/0142159X.2014.889814
 13. Cowan J, George J. A handbook of techniques for formative evaluation: Mapping the students' learning experience. Abingdon-on-Thames: Routledge; 2013.
 14. Sandelowski M. What's in a name? Qualitative description revisited. *Res Nurs Health*. 2010;33(1):77-84. Doi: 10.1002/nur.20362
 15. Mathison S. Why Triangulate? *Educ Res*. 1988;17(2):13-7. Doi: 10.3102/0013189X017002013
 16. Abdous MH. E-Learning quality assurance: a process-oriented lifecycle model. *Quality Assurance in Education*. 2009;17(3):281-95. Doi: 10.1108/09684880910970678
 17. Watson S. Closing the feedback loop: Ensuring effective action from student feedback. *Tertiary education and management*. 2003;9(2):145-57. Doi: 10.1023/A:1023586004922.
 18. Harvey L. Student feedback [1]. *Quality in Higher Education*. 2003;9(1):3-20. Doi: 10.1080/13538320308164
 19. Quality Assurance Agency for Higher Education (QAA). Enhancement-led institutional review handbook [Internet]. 2nd ed. Gloucester: QAA; c2008. Available from: [http://www.qaa.ac.uk/en/ReviewsAndReports/Pages/Enhancement-](http://www.qaa.ac.uk/en/ReviewsAndReports/Pages/Enhancement-led-Institutional-Review.aspx)
 20. Ausburn LJ. Course design elements most valued by adult learners in blended online education environments: An American perspective. *EMI Educ Media Int*. 2004;41(4):327-37. Doi: 10.1080/0952398042000314820
 21. The Hanover Research Council. Best practices in online teaching strategies [Internet]. Washington, DC: The Hanover Research Council; c2009. Available from <http://www.collegesuccess1.com/Online%20Class%20Documents/Best%20Practices%20in%20Online%20Teaching%20Strategies%20-%20Membership.pdf>
 22. Gonzalez C. Conceptions of, and approaches to, teaching online: a study of lecturers teaching postgraduate distance courses. *Higher Education*. 2009;57(3):299-314. Doi: 10.1007/s10734-008-9145-1
 23. Suliman S, Hassan R, Athamneh K, Jenkins M, Bylund C. Blended learning in quality improvement training for healthcare professionals in Qatar. *Int J Med Educ*. 2018;9:55-6. Doi: 10.5116/ijme.5a80.3d88
 24. Gibbs G, Simpson C. Conditions under which assessment supports students' learning. *Learning and teaching in higher education*. 2005(1):3-31.
 25. Biggs J. Enhancing teaching through constructive alignment. *Higher Education*. 1996;32(3):347-64. Doi: 10.1007/BF00138871
 26. Garrison DR, Anderson T, Archer W. Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet High Educ*. 1999;2(2):87-105. Doi: 10.1016/S1096-7516(00)00016-6
 27. McCampbell B. Blending the basics. *Principal Leadership*. 2001;2(1):71-3.
 28. Graham CR, Woodfield W, Harrison JB. A framework for institutional adoption and implementation of blended learning in higher education. *Internet High Educ*. 2013;18:4-14. Doi: 10.1016/j.iheduc.2012.09.003