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# Home-based learning (HBL) in higher education post-COVID: an analysis from staff and student perspectives.

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# Home-Based Learning (HBL) in Higher Education Post-COVID: An Analysis From Staff and Student Perspectives

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## Abstract

The purpose of this work is to analyze the impact of COVID-19 on teaching methods, focusing on the Home-Based Learning approaches (HBL) utilized at short notice to support students at the Robert Gordon University in Scotland. Building on the themes developed by Tay et al. (2021), this paper focuses on: Student engagement; Software applications and Communications; Staff; and Self-directed skills to better understand the teaching decisions taken by staff at the onset of the pandemic and the impact this had on students' learning. The aim is to then use this data to support how best to go forward in our teaching practices in a post-COVID world. To achieve this, qualitative research is undertaken using an exploratory approach looking at the key areas and antecedents drawn from the literature; it utilizes the views of staff and students to better understand how the post-pandemic use of technology in education can be designed to be fit for purpose. The paper outlines that when addressing the issues described above, the views of staff and students need to be analyzed to better plan for the post-pandemic use of technology in higher education.

## Keywords

Home-based Learning (HBL), Online learning, Online education, COVID-19, Pandemic

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## Introduction

**Since the onset of COVID-19, the use of technology has** increased exponentially, particularly in the field of social media synchronous communication (Ren et al., 2021). This COVID-19 imposed 'crash course' in teaching methods has been subject to scrutiny by teachers, students, and the wider community. This recent post-COVID-19 development is referred to in this paper as Home-Based Learning (HBL). Much work has been done in this area (Sherwin, 2021) for pure open distance learning (ODL) courses, but this has traditionally been only a small part of the higher education (HE) sector. Some of the same problems that have been identified and studied in the ODL academic literature supply insight into problems of mass online learning, but the emphasis for this research is focused on the post-COVID-19 world move to HBL.

The aim of this paper is to add the earlier post-COVID-19 work and consider the implications of their findings from the perspective of teaching staff and students at Robert Gordon University (RGU) in Scotland. The explorative, qualitative approach adopted develops issues identified and considers these from the perspective of staff and students showing how expectations and concerns correlate or diverge. The work gives insight on how to manage a shock event, but more importantly, it evaluates how technology can be used in post higher education.

## Literature Review

Of the many global disruptions that have occurred over the last few decades, none have had the extreme impact of that felt due

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\***Original Research Papers** These papers report on original empirical research with a focus on teaching and learning, research and innovation, and insights and observations resulting from participation in a particular project or case study.

to COVID-19 (Yustina et al., 2020). UNESCO states that 90% of learners worldwide had their educational delivery affected by the pandemic (Teo et al., 2021). Issues derived from having to learn away from the traditional classroom environment are not new; Mahlangu (2018) draws on several international studies naming problems such as isolation, difficulties with the technology, and inadequate online support.

Tay et al. (2021) suggested the following prerequisites for successful online delivery: engagement by students is essential for learning to take place; different software applications should be considered and adjudged depending on the learning activity; teaching staff would require continuous professional development to keep them up-to-date with changing technology; online social networking platforms might be required following any online sessions; and finally, that students would *'need to be inculcated with more self-directed skills and habits for learning in online and face-to-face contexts'* (p. 299). This paper develops further the main antecedents outlined above, considering the unprecedented and rapid change to HBL. This paper will add to the discussion by considering the HBL experience from both the students' and staffs' perspectives.

## **Student Engagement**

Academic literature has generally identified that defining student engagement is complex. Pre-online efforts find the psychological investment and effort aimed at learning the knowledge and skills academic work is intended to promote (Newman, Wehlage and Lamborn, 1992). Cole et al. (2021) show that engagement covers several academic and non-academic aspects of the student experience and that the measurement of this can be difficult, whilst Dismore et al. (2019) and Tansey et al. (2020) show that the extracurricular programmes and communications are vital to building strong relationships that ultimately enhance the students' ability to engage with their studies effectively. From an online perspective, Martin and Bolliger (2018) link engagement to interaction and the need for fostering this in an online environment. Axelson and Flick (2010) outline the link between the students' and the institutions' responsibility for the quality of the learning, stating that students need to input the necessary effort, and institutions must supply the right environments to support students' learning. Chiu (2021) explains that student engagement has three universal and psychological needs: autonomy, competence, and relatedness, whilst Tay et al. (2021) name the following factors relating to student engagement: the teacher, the learning environment and technology, learning activities, and peers. This research will aim to take a holistic view of student

engagement by discussing these antecedents from the perspective of both the staff and students.

## **Software Applications and Communications**

One of the issues staff faced at the start of the COVID-19 lockdown was deciding which platform to use (Teo et al., 2021). Observing the number of competing technologies in the field, Tay et al. (2021) identified the need to better understand how staff choose which technology to adopt. Teo et al. (2021) reflect on the admirable attempts by staff to create the best environment from the platforms available. Blackboard Collaborate was the approved RGU platform; however, individual staff had the volitional control to decide which platform would best serve the needs of themselves and their students, dependent on what they were teaching (Hayes et al., 2020). Many adopted Zoom for its speed, easy interface, and stability (Sherwin 2021; Ho et al. 2021). This, not surprisingly, had the potential to lead to student confusion. Staff were also expected to be creative and adaptive in this (Yustina, 2020).

Hill and Fitzgerald (2020) find that the use of more informal messaging on apps such as WhatsApp gave an invaluable lifeline to students to replace the face-to-face interactions and opportunity to ask 'silly' questions. It is normally the choice of the staff member to adopt the communication platform best suited to fulfil the students' needs (Yustina, 2020); accordingly, staff are likely to adopt a particular platform and use it in their communication with all their students. In the context of the increasing discussions around the 'right to disconnect' (Muller 2020; Franconi and Naumowicz 2021), the increase in availability and multiple platforms that staff can be contacted on must be treated with caution. The adoption of multiple platforms is, however, likely to be confusing for students (Ylirisku et al., 2021), as well as staff. That said, the use of these technologies supported the creation of a conducive space allowing students to continue their peer-to-peer learning in a user-friendly environment (Sia and Adamu, 2020).

## **Staff CPD and Self-Directed Learning**

There is a requirement for staff to upgrade and update the various skills required to be competent HE professionals (Sia and Adamu, 2020). Tay et al. (2021) outline the need for research into how academic staff design and implement online learning. The onset of COVID-19 and the rapid adoption of HBL has put this requirement to the test in terms of how best to achieve the goal as well as the ability of staff to switch to an alternate teaching approach in such a short space of time (Yustina, 2020). Mansor et al. (2021) suggest that teacher readiness is central to the

likely success of a rapid move to HBL, outlining understanding, confidence, positive attitude, and motivation as the central antecedents. Mansor et al. (2021) present a four-dimension model based on the Technology Acceptance Models (Davis, 1989; Venkatesh, 2003). The constructs are *attitude*, i.e., the individuals' perceptions of a technology (in this case, an online learning platform); *perceived behaviour control*, the perceived ability to achieve the goal of utilizing the technology; subjective norms, the prevailing belief amongst a group towards a technology; and *ICT self-efficacy*, individuals' perceived ability to achieve specific tasks via technology. Almajali and Masadeh (2021) studied how facilitating conditions, social media and ease of use affect the perceptions students have towards online learning. The required facilitating conditions (Venkatesh, 2003) designed to support student engagement are an important requirement for a successful outcome; however, these have yet to be explored fully in HBL.

## Methodological Approach

Despite the extensive literature on Online learning (Mahlangu, 2018), the COVID-19 enforced transition to HBL has received limited investigation at this stage; thus, qualitative research will enable a greater understanding of the implications of HBL within higher education. The research takes an exploratory approach: i.e., although key areas and antecedents are drawn from the literature that gives structure, the data will lead to the creation of theory rather than seeking to prove specific pre-defined outcomes (Bryman et al., 2021). The interpretivist, inductive approach allows for the researchers to investigate the respondents' views and opinions (Turner and Pirie, 2015) on subjective and personal matters (Cresswell and Cresswell, 2017), building on a body of knowledge and attempting to derive concepts and theories from this (Patton, 2002). Following this research paradigm leads to the appropriate selection of a qualitative methodology (Bryman, 2021). Using in-depth, semi-structured focus groups, the researchers explored the respondents' views, opinions, and attitudes (Kvale, 1994) towards HBL. The focus groups were designed to investigate the following key themes, developed from the academic literature:

1. Student engagement
2. Software applications and Communications
3. Staff CPD and Self-directed skills

Tay et al. (2021)

A purposive non-probability approach, i.e., where anyone who can purposively enlighten the research and is affected by the phenomena can form the sample (Silverman, 2013). Respondents were nominated based on their experience with the phenomena

(Honigman, 1982). Due to the authors' joint knowledge of and access to the staff and students, Robert Gordon University was identified as the basis of the sample. The selection of the specific individuals was based on the following criterion: staff and students must have been teaching or studying at RGU pre-pandemic to enable adequate reflection on the difference between 'traditional' and HBL pedagogies. This led to a total of 13 participants, seven staff and six students. The students ranged from third-year undergraduates to recently completed postgraduates, whilst the staff ranged from early-career academics to semi-retired individuals with 4 to 27 years of teaching experience. Upon completion of the data collection, thematic coding of the verbatim transcriptions enabled an evaluative and structured approach to the qualitative data (Josselson and Lieblich, 1995).

## Results and Discussion

### Student engagement

Staff agreed that a personal approach to online tutorials was needed and that starting a session talking generally about non-university work set the scene and aided in two-way engagement (Bolliger, 2018). The students noted that a smaller group (<10) was more conducive for good engagement while there was less of an obligation to speak in a larger group. Enthusiasm by staff following any responses to questions was essential to build student confidence. Throughout the process, it was noted that a degree of respect and maturity was needed, but it was not always forthcoming from students and the staff, given the speed that HBL had to be introduced (Axelson and Flick, 2010) and the vagaries of the online environment. Students identified peer support as being important to the adaptation to HBL (Tay et al., 2021); this was made easier for those who had pre-existing friendships. For those coming into the HBL environment without knowing anyone, it was a struggle.

During the actual online sessions, the use of the cameras was an area of much discussion and debate. The ability to see someone's face clearly changes the dynamic in any discussion (Hu, 2021). Staff identified that getting students to turn cameras on as a major challenge, whilst recognizing that in some instances, there may be reluctance due to personal circumstances. The students tended to be supportive of being expected to have cameras on, but not forced, with some suggesting that the ability to be more casual was an attraction of using HBL. They further suggested that a conducive atmosphere for camera usage was best achieved in a small group and by setting protocols early in the module that was adhered to by all throughout (Hu, 2021). Similarly, there was a mixed response as to the value of break-out rooms from staff. The

students noted that when staff did not come into the room, there was a tendency towards inertia; therefore, the students were in support of staff coming into break-out rooms to give guidance. The efficacy of break-out rooms was viewed with some suspicion by students, who suggest that when you knew the people in the room, it was fine (Tay et al., 2021), but it is less likely to be productive if you didn't, and less likely for cameras to be turned on (Hu, 2021).

### **Software Applications and Communications**

As staff experimented with the functionality of platforms and applications, they found that certain tasks worked better on certain applications. As per Teo et al. (2021), staff acknowledged that they sought the 'best' technology for the specifics of each class. In line with Yustina (2020), this could lead to 'platform-hopping' and student confusion as the students suggested that one platform for all classes would be preferable to reduce confusion. MS Teams is now favoured, particularly for those who have live clients or group work components, due to its ability to share files and track engagement via chat functions. Staff noted that the groups' discussions on an 'official' platform resulted in increased professionalism and a reduction in communication issues. Polls and interactive quizzes were seen as especially useful in live classes by staff and students alike for illustrating key points or identifying upcoming topics. Staff and students highlighted screen sharing and shared documents as critical, enabling collaboration in class on a shared document and/or shared work which enhances the overall class discussion (Sia and Adamu, 2020).

A change in the formality of communication between staff and students was one of the unintended consequences of the rapid shift to HBL. This was partially due to everyone's experimentation with the technologies and learning their etiquettes, but also due to the break-down of some of the traditional barriers between staff and students: students acknowledged that seeing the staffs' homes and the day-to-day lives occurring in the background had a humanizing effect and helped to maintain, and arguably enhance, the staff-student relationship (Dismore et al., 2019). Informal class group chats via, e.g., WhatsApp / Facebook were seen as of vital importance and comfort at the start of the pandemic for student peer-to-peer support, although their use declined as education settled into the 'new normal' (Sia and Adamu (2020). Staff noted a significant shift in tone (and timing) of communications from students over platforms such Zoom and MS Teams, with both groups identifying that instant messaging was seen as a replacement to the 'quick question' at the end of classes, but it had led to a deterioration

of professional communication standards, supporting the findings of Hill and Fitzgerald (2020) and Tansey et al. (2020). Students recognized their role in this shift, suggesting that quick messaging was beneficial and deliberate as staff were more likely to respond faster to a 'quick Teams message.' Contrary to the 'right to disconnect' (Muller 2020; Franconi and Naumowicz 2021), staff increasingly felt they needed to respond to students at 'all hours,' with one noting that rather than 'working from home,' it was more like 'living at work.' Staff are concerned that post-pandemic students will expect everything that was once delivered on campus and the flexibility and interactivity of HBL, exacerbating existing feelings that the pandemic delivery has been exponentially more work than the traditional model.

### **Staff CPD and Self-Directed Learning**

Self-directed learning (Teo et al., 2021) was viewed differently across staff and students, with the staff feeling that they were more capable of 'getting through it' whilst identifying that students needed more structured guidance on the 'new normal.' The lack of appropriate 'facilitating conditions' (Almajali and Masa'deh, 2021) was noted as a problem by students, citing a lack of initial support with how to access and use the new platforms. Both groups cited the need for clear, short video content—from basic 'how-to' guides for the various platforms moving on to 'advanced techniques'—as key factors in encouraging the adoption and use of the various platforms, supporting the assertions of Mansor (2021). Staff identified that, unsurprisingly, there was no organized training on HBL prior to lockdown (Sia and Adamu, 2020). Whilst some had been undertaking ODL for years (Sherwin, 2021), most staff did not have ODL experience to call on (Yustina, 2020) and existing ODL knowledge was not inculcated sufficiently. This led to staff feeling unsettled (Mansor et al., 2021) in the opening phases. Staff peer support (Tay et al., 2021) suffered due to the lack of 'water cooler' chats where ideas would be shared traditionally. One-to-one training was flagged as the best way to support staff, although no formal structure was put in place to accommodate this, and the main approach appeared to be self-learning (Sia and Adamu, 2020).

The lack of comprehension of HBL was clear from students and staff alike; students were generally patient with staff, being aware that where staff had to 'play with' the technology to get it going, the flow of the engagement was impaired (Bolliger, 2018). Students noted a clear improvement in the ability of staff to manage the technical side of HBL as time progressed, with their own views of the platforms being generally positive, finding them accessible and easy to navigate (Davis, 1989;



Venkatesh et al., 1995). They also reflected on their own performance, with some suggesting that it was a positive educational and social experiment with several positive aspects that should be taken forward to allow for flexibility in the future. As Mahlangu (2018) notes, a functioning technological infrastructure is a key to any successful online delivery; this is clearly heightened in the HBL environment.

## Conclusion

This exploratory qualitative study has built on earlier post-COVID-19 work addressing staff and student perspectives on student engagement, CPD and self-directed learning, software applications, and communications. Further study is needed to address each of these topics in depth; however, the initial findings support the following: Creating a supportive online classroom environment that encourages students to participate fully is a difficult balancing act that requires small groups (<10) and familiarity within the group. Peer support for both groups continues to be an invaluable resource, whilst the specific need for short video guides for the various platforms and software was identified as critical for staff and students to engage with HBL effectively. The breaking down of traditional staff/student barriers has had many positive benefits, such as the humanizing effect it has had; however, the deterioration of students' professional communication and increase in staff workload are clearly issues that need to be addressed. Accordingly, and supporting the assertion of Naimbar (2020), this study suggests that cognizance of staff and student views is needed in planning for the post-pandemic use of technology in higher education.

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