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# Technology adoption in a hybrid learning environment: An action research study among university faculty in the UAE

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## ABSTRACT

While much attention focused on educator technology adoption during the period of Emergency Remote Teaching, whether these technologies still have a place in classroom-based teaching and learning practice remains to be seen. This multi-method, qualitative action research study explores the experiences of 22 university faculty in the United Arab Emirates across a range of eLearning tools. Focus groups were held before and after a longitudinal intervention, in which faculty trialed eLearning tools and reflected on this process in a series of weekly reflective logs. Participant profiles emerged through a process of Reflexive Thematic Analysis, along with themes relating to advantages, disadvantages, and unique features of eLearning tools. The data illustrated that although eLearning tools were widely used, their perceived utility was context dependent. The study therefore recommends an iterative process focussing on specific departmental needs, and structured support to encourage faculty to trial eLearning tools. The findings are relevant for higher education faculty and management, and may inform eLearning resource allocation and the provision of continuing professional development.

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## KEYWORDS

Blended learning;  
technology adoption;  
eLearning tools; action  
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## Introduction

During the COVID-19 pandemic, schools and universities engaged in Emergency Remote Teaching (ERT), a temporary and unplanned transition into online lesson delivery (Khlaif et al., 2021). Despite initial challenges with ERT adoption, fears that educators might adopt a path of least resistance were diminished (Bartolic et al., 2021). Moreover, effective use of eLearning tools offered the potential to enhance teaching and learning (Bryson & Andres, 2020). As the initial period of ERT ended, it was clear that although face-to-face teaching would not be replaced, an opportunity was presented to reflect upon adopting/adapting innovative elements of ERT alongside face-to-face teaching practices. Some have suggested that optimal teaching practices can be achieved by retaining the “best” features of face-to-face and online teaching in a blended learning (BL) environment (Alghamdi et al., 2021; Oliveira et al., 2021; Sharma & Alvi, 2021).

Following an initial period of ERT, educational institutions in the UAE reopened, albeit with strict protocols and online provisions for those who could not attend in-person (Knowledge and Human Development Authority, KHDA, 2020). Teaching took place in what was described as the “hybrid”

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mode, a form of Blended Learning. In a hybrid environment, lessons attended by some students in person are attended simultaneously by their online classmates (Raes et al., 2020). The version of the model introduced by the KHDA adopted many ERT design characteristics, with online learning continuing to be adopted by those unable to attend due to health concerns or being unable to travel from their home country. Iterations of the model carried out pre-COVID identified positive hybrid model attributes; universities could meet increasing enrolment demands (White et al., 2010) and tackle attrition from exclusively online courses (Lightner & Lightner-Laws, 2016). Limitations of the hybrid environment come from different perspectives. Weizte and colleagues (2013) identified a paradox wherein teachers view online students as passive, while the latter group suggested that teachers interact more with their in-person counterparts. This gulf is further shown when online students report reduced belongingness (Olt, 2018), and in-person students feel disadvantaged due to the time educators spend dealing with online technical issues (Huang, 2017). It is not just *whether* faculty use eLearning tools, but how and when they are used, and educators' self-efficacy in doing so, that can impact the teaching and learning experience.

## Literature review

Researchers and educators agree on the need for quality curriculum content in blended and hybrid environment learning (Khlaif et al., 2021; Sharma & Alvi, 2021; Shinas & Steckel, 2017). With an array of online resources available from which to choose, it is crucial that those using them are "tech savvy" and carefully vet materials to ensure students get the most out of their classes (Leo & Puzio, 2016; Martin, 2020). Such preparation takes time. As well as content pre-testing, Dhawan (2020) discusses the need for a plan B when difficult situations arise. Those with new ERT competencies are encouraged to use these skills to extend higher education's reach in the post-pandemic world (Oliveira et al., 2021), but educators have long been overwhelmed by their lack of experience with eLearning (Cheng & Chau, 2016) and time (Brown, 2016; Rasheed et al., 2020). Despite challenges, they can be flexible when provided with supportive infrastructure (Epps et al., 2021; Lassoued et al., 2020).

User acceptance is vital to implementation success, as addressed by the Unified Theory of Acceptance and Use of Technology (UTAUT; Venkatesh et al., 2003). Constructs that emerged from this, further developed by Dwivedi et al. (2019), include performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC), which in turn influence attitude (AT) and behavioural intention (BI) towards acceptance and use of technology. Some studies during the pandemic adopted the UTAUT model to measure the acceptance of teaching platforms such as Blackboard in Saudi Arabia (Mujalli et al., 2022) and WhatsApp in Zimbabwe (Maphosa et al., 2020). Although both studies attributed high acceptance rates to infrastructural conditions that supported the use of technology, Akinnuwesi et al. (2022) found that PE exerted the greatest influence on BI, echoing Venkatesh and colleagues' (2003) original findings. Thus, it is likely that several potentially changeable contextual factors influence technology adoption intention.

As with the educational environment, the factors driving technology use in the hybrid model of teaching delivery may have changed post-ERT. Recognising educators' diverse needs as delivery moved from enforced technology use to the hybrid environment and beyond is essential for enhancing teaching quality. Faculty technology use may be more imperative than ever as higher education enters uncharted territory. The rise in language detection models such as Chat GPT poses new challenges for detecting plagiarism (Cotton et al., 2023; Rospigliosi, 2023) but also offers the potential to increase student engagement (Kasneji et al., 2023; Li & Xing, 2021). Whether educators intend to continue using technology in the post-ERT education landscape may depend upon multiple factors, including their experiences with these tools. Some educators may have pre-existing technology competencies allowing for unwavering acceptance and use of technology, while others may prefer relegating educational technology to the past. A growing body of research points towards the benefits of judicious technology use in education. Encouraging and demystifying the process

involved in tool experimentation and sharing outcomes in communities of practice might facilitate the integration of educational technology in the post-pandemic classroom. A qualitative exploration of faculty experiences of tool usage can provide insight into which tools work and in what circumstances and how educators can choose and use appropriate tools to enhance their teaching and learning outcomes.

## Problem statement and research questions

Research carried out during Covid lockdown recommended mapping a clear path for technology enhanced teaching in a hybrid environment and meeting the needs of all learners to bridge this experience gap (Anderson et al., 2022; Epps et al., 2021). The purpose of our intervention was to facilitate meaningful technology adoption through sustained engagement with eLearning tools and create a conducive environment for faculty to explore eLearning tools within their unique teaching spaces. This longitudinal action research study involved providing practical support to UAE-based university faculty on using eLearning tools in the hybrid environment and exploring their experiences implementing and engaging with such tools. Our objectives were to assess faculty motivations for using e-learning tools following the classroom protocol mandated by the KHDA. Following a period of inquiry, an intervention was to enable repeated real time experimentation, faculty reflection and peer interaction. In doing so, study participants might enhance their technology use and identify whether these eLearning technologies could be successfully embedded in their teaching and learning practice.

Utilising the recommendations of the previous literature, and the constructs of the UTAUT model to guide it, this study attempted to answer the following research questions (RQs):

**RQ1:** What motivates educators to experiment with eLearning tools in a hybrid environment?

**RQ2:** How did the intervention change educators' perception of eLearning tool effectiveness in teaching and learning?

## Method

### Design and participants

The qualitative, action research project focused on faculty experiences at an International Branch Campus of a British university in the United Arab Emirates. Institutional ethics approval was granted, providing that voluntary informed consent was given by all faculty, and all names would be anonymised. Participants were purposively sampled based on their ability to bring relevant insight to the topic (Denscombe, 2021), and were given the opportunity to volunteer to take part in the study during a faculty professional development session. Of the 22 educators who self-selected to participate, 20 provided data for the study. The study consisted of faculty representing most major programmes offered by the university. Of the participants, 19 were female.

### The intervention and data collection

The data collection took place across three stages:

*Stage 1:* Six baseline focus groups were held online. Researchers divided 22 participants into six separate focus groups that lasted approximately 30–40 min. Driven by RQ1, questions such as “Tell me about the education technology you use in class” and “How do you feel about their use in the classroom”, helped delve into the participants' use of, and attitudes toward, eLearning tools.

*Stage 2:* Participants used one or more tools for six out of ten consecutive teaching weeks. Their chosen tools could be free of cost or available via the university's eLearning management system. Participants were asked to keep a weekly reflective log detailing the tool type, purpose, and

perceived impact on their teaching and learning effectiveness, to be submitted soon after their teaching sessions through email or WhatsApp (text or voice note). The research team received 79 reflection logs, of which 40 were WhatsApp voice notes.

*Stage 3:* Six final follow-up focus group sessions were held online, each lasting for approximately one hour. To assess whether attitudes for RQ1 had changed, and to answer RQ2, questions such as “How did you choose which eLearning tool to use?” were constructed based on the themes and inspired by the constructs of the UTAUT model constructs. Participants shared how they experimented with their tools, whether technology addressed any challenges, and whether they perceived any change in teaching and learning effectiveness. Exploring whether focus group data suggested the intervention changed participants’ attitudes towards tech adoption helped triangulate the findings from their reflective logs.

### **Data analysis**

Data from focus groups and faculty reflections were analysed using Reflexive Thematic Analysis (RTA; Braun & Clarke, 2019), the six phases of which have been extensively discussed in the academic literature (Braun et al., 2022; Byrne, 2022). Analysis followed a deductive approach; although data were interpreted through the lens of the UTAUT model, potential outcomes (including codes and themes) were not identified a priori. A recursive process of engagement with the data took place, beginning with data familiarisation. Following this, each transcript was individually coded by the researchers. These codes were subsequently clustered into emergent themes based on shared factors (for example, the pedagogic activity for which the tool was used, faculty perceptions on using the tool). These emergent themes were then clustered into overarching themes. The baseline focus group transcripts were analysed to identify the experience and attitude levels at the start of the project. The final focus group conversations helped identify participants’ journey profiles revealing whether any changes occurred due to the intervention. Researchers engaged in an ongoing process of critical reflection on the data and the analysis process. No new themes were generated upon reaching our sample of participants. However, it is important to note that reflexive thematic analysis does not require saturation (Braun et al., 2022).

It is increasingly accepted that qualitative researchers should address positionality (Bayeck, 2022; Corlett & Mavin, 2018). The authors recognise their position as insiders and the potential this has to shape the study’s course. While our position has several benefits (greater participant engagement), we were mindful of the possible negative impact of our professional relationships with participants, shared organisational culture, and similar technology adoption experiences – both successes and challenges. As illustrated by Fleming (2018), our positionality could result in role conflict (negative for us), implicit coercion (negative for participants), and failure to recognise our colleagues’ tacit experiences in our data collection and analysis (negative for the research). Addressing the impact of our position to enhance trustworthiness necessitated critical reflection, individually and as a team.

### **Findings**

#### ***Baseline focus group: novices, in-betweeners, and experts***

Experience can affect how educators interact with eLearning tools (Cheng & Chau, 2016). Therefore, to answer RQ1 and identify motivations to integrate eLearning tools, it is important to categorise the varying levels of experience among faculty. Five participants were categorised as “**novice users**” of tools. The reasons for this were manifold, with some speaking of aversion and apprehension. Some were “**in-betweeners**” – users with intermediate knowledge and eLearning tool experience. Most ( $n = 12$ ) were experienced users of tools – “**experts**”. From initial focus groups, it was apparent that participants had very different experiences with eLearning tools. Regardless, several participants

shared that joining this study might make them more inclined to use tools to enhance their teaching and learning practice.

### ***Upon reflection: thematic analysis of weekly reflective logs***

To answer RQ1 and RQ2, four distinct themes emerged from analysis of participants' weekly logs. These showed a range of perceptions regarding the technologies and how their use impacted the classroom experience.

### ***Student advantages***

#### ***Enhanced critical thinking and engagement***

Participants felt that the tools gave students an equal opportunity to participate and express themselves in class and encouraged faculty to develop more constructive pedagogies such as real-time collaborative assessments. Mentimeter, Slido, and Nearpod were frequently used to elicit student views and feedback or for a simple class starter activity. Padlet was helpful with group collaboration, creating a safe space. One education lecturer stated it permitted "hearing the voices of those I don't get to hear every single class" (Chloe). Faculty members also use game-based tools to allow enhanced autonomy, having students create the quizzes, which they found "energising and exciting" (Charlotte, psychology).

#### ***Student satisfaction***

All but two participants reported that students were satisfied with the tools, in some cases inferring student satisfaction from the participation rate. A finance lecturer, Amira, shared "I asked them for their feedback, and they were very happy. They said, 'Miss, can you set up these activities for us during the winter break also?'". One law faculty member noted "We had a range of responses ... students seemed very interested in hearing what the others found interesting or learned" (Lily, Law).

#### ***Forming good habits***

Some tools were seen as inculcating better learning practices, for example, using Calendly to book feedback sessions. Tools (e.g. Padlet) could also motivate students to complete tasks promptly as they act as class dashboards displaying each student's progress. This was a powerful motivator – "They can see their classmates' activities and responses, which gives them that extra push to finish the task and know more about the topic" (Rania, Media).

### ***Faculty advantages***

#### ***Usability***

Once familiar with the tools, users experimented with alternative pedagogical functions. Tools became associated with certain activities, despite having features with different uses. For example, as well as real-time quizzes, faculty used Kahoot! for self-directed, self-paced student assessments. As Aaliyah (Finance) shared, tutorials and feedback sessions became easier to execute – "I have told Calendly that I want my appointments in 15-minute slots. It is all the easier because they don't have to worry about me sending a link separately".

#### ***Facilitation of new teaching strategies***

Participants discussed how tools allowed them to change their practice. They created activities, impossible without the tool, resulting in a sense of "newness" in the classroom and deeper levels of interaction. This was particularly the case with the machine learning tool, Teachable Machine (used by Mousa, IT), mathematic software, GeoGebra (Emma, IT), and Communications platform, Zoom (Sophia, education faculty). In the case of Zoom, students chose breakout rooms designed

for their learning needs. Rania (Media) mentioned “We assigned and labelled Zoom rooms ... So, for example, one of the Zoom rooms was labelled research questions”. This gave students autonomy to collaborate and learn in a hybrid environment.

## ***Disadvantages***

### ***Technical problems***

Technical problems were one of the main impediments. Some were experimenting with free trial versions with limited functionality. Others reported suboptimal internet speed and an inability for the technology to work seamlessly across devices. Rajesh (Business) felt that this was the Achilles heel of technology usage – “If there is a wireless disruption ... obviously that would impact the tools, especially when like it’s in the middle of the game. It just gets disconnected, and then it fails to load”.

### ***Challenges of use***

Navigating complex features whilst designing and executing the activity was challenging for faculty and students. Students were reluctant to use a tool that required extensive set-up for a one-time exercise. Lily (Law) contended that “having them join and create an account ... is something they might consider a hassle. And I guess it seems even more of a hassle if (the tool) is not consistently used”. Additionally, faculty were apprehensive about not being able to censor the content posted by students due to the lack of anonymity feature in some tools. For example, on drawing software, Anya (Psychology) was mindful that students might draw “something obscene”. Some problems related to the features of the tools. When discussing Quizziz, one faculty member noted “I found that if the winner is declared, and then the quiz just ends, so that you know all the students will not be able to complete it ... the quiz just stops there” (Farhana, Business).

## ***Unique features***

### ***Enhanced process/features***

This subtheme was the most frequently identified in the data. Tools allowed students to participate in activities using a variety of modes and media. Participants valued the unique tool features, and what they could offer the teaching and learning environment. The most popular tool was Padlet, with Mousa (IT) noting that it “allows students to get inspiration, comment and provide feedback to each other’s projects by using the ‘Like’ and ‘Comment’ features”. Accounting and Finance faculty, who would otherwise need whiteboards in class to show calculations, found that features in tools such as Notability and OneNote enhanced classroom learning. Additionally, OneNote had the flexibility to streamline the provision of online materials. “OneNote, when combined with MS Teams’ class notebook, is very effective in sharing notes. OneNote can also embed PowerPoint, PDF, YouTube videos, and web links.” (Emma, IT)

### ***A new bank of data***

These tools generated new ways of checking student progress, comprehension, and doubts in real-time. Lecturers could download work from Padlet as a PDF (Rania, Media) or, as in the case of Sanaa (Finance), use Kahoot! to check topic comprehension – “I just wanted to see which topics <the students are> finding difficult because I’m planning my revision”.

## ***Did anything change? – findings from follow-up focus groups***

Faculty shared their attitudes towards tools, specifically whether the intervention had changed their thoughts on tool usage. The researchers mapped participants’ journeys across all three phases.

Distinct participant profiles emerged based on the change in attitude and tool usage, which will be outlined below.

### *Intervention changed behaviour*

At the final data collection point, 12 people reported that this project encouraged them to integrate tools into their practice. Those in this profile exhibited an appetite for exploration, despite four reporting apprehension at the start of the project. The project design, necessitating repeated usage and reflection, enhanced participant self-efficacy and encouraged planning for tool usage. Among other perceived benefits reported, enhanced critical thinking and engagement were key determinants of faculty motivation. Tool features sustained motivation for use and allowed for repeated experimentation. Rania (Media), a new user, shared that her confidence had grown through the intervention, “I would definitely continue, (but will now) plan a little bit better, plan ahead”. When Saana (Finance) used a new tool, she piloted it first. “Usually when I try with any new tool, I do the test run at home with my kids.” This ability to trial the tools in a safe space led to a change in her attitude from the start of the project when she said “I’m a person who hates technology” to the end – “It has changed my perspective that yes, it can be useful. I will be exploring further”.

### *Intervention had minimal impact*

The project resulted in minimal changes for five participants. This was either because they were already highly experienced users or did not believe these tools would enhance their lessons. In the case of the former, Rajesh (Business) did not feel that this project changed their eLearning engagement as he was already a proponent of these tools – “to stay relevant, we need to use technology”. Three others found incorporating tools too time-consuming compared with their perceived benefits. William (Business) ended his journey, disappointed. The weeks of experimentation confirmed his attitude that the potential benefits were not worth it, “(My) reluctance to adopt technology is I don’t wanna make a mistake, because if you screw it up, they could potentially lose some respect for you”. Charlotte (Psychology) felt that technology reduced her students’ ability to interact, causing them to miss out on an important learning outcome. She said, “In psychology, there’s a lot of human interaction that has to be acquired as a skill”.

### *Intervention changed attitude*

The community of practice created in this study provided opportunities for participants to learn from their peers’ experiences and develop a shared bank of resources, even in the case of four faculty whose attitudes changed more than their implementation behaviour. Differing priorities hindered exploration but piqued interest for future usage. One faculty member shared her interest in discovering the range of technologies available, “My attitude has changed. ... it has inculcated that interest in me to learn more when I get more time” (Aaliyah, Finance). Indeed, several participants noted time as a primary constraint rather than a lack of motivation to use the tool.

The findings document the participants’ journey, illustrating how technology adoption is not a discrete phenomenon but occurs over time and with repeated experimentation. Although participants were initially identified by their usage, their journeys differed and showed how sustained engagement with tools could change attitudes towards their use in teaching and learning.

## **Discussion**

This action research study documented an intervention to enhance faculty eLearning tool usage. Inspired by the range of technologies used during ERT and the emerging literature on this phenomenon (Akinnuwesi et al., 2022; Maphosa et al., 2020; Mujalli et al., 2022), researchers explored whether such tools retained a place in the hybrid learning environment. This intervention created a community of practice where faculty could explore tools and trial implementation through peer



support and a shared bank of resources. The complementary research component of this project catalogued participant reflections on how tools impacted teaching and learning effectiveness and their motivation to experiment with tools in the hybrid learning environment. Moreover, the initial focus group provided opportunities to share best practices and develop a customised tool kit for each participant.

Variability among participants was evident throughout the study, in terms of technology usage and its perceived utility in the hybrid environment. At baseline, participants belonged to one of three distinct user categories – novice, intermediate, and expert. Being an “expert” did not imply an unquestioning appreciation of all aspects of the tools. Indeed, regular eLearning tool users identified several drawbacks and a need for judicious application in teaching and learning practice. Regardless of group membership, discussions centred mainly on impediments to tool usage. Narratives focused on trying (and often failing) to implement technology in practice and, for some, this was a significant deterrent. Others continued to use tools despite the challenges. This was most evident among intermediate and expert users; among the novice users, there was a sense that they “ought” to be using technology and hoped that participation in the intervention would facilitate this. The UTAUT model (Venkatesh et al., 2003) can provide insight into how and why participants used tools. The themes “faculty advantages”, “student advantages”, disadvantages”, and “unique features”, stemming from analysis of weekly reflection data, show a nuanced picture of how participants used (and viewed their use of) tools throughout the intervention.

Performance expectancy (PE), the extent to which educators believe the tool will help attain classroom teaching and learning goals (Venkatesh et al., 2003), was evident in participants’ narratives. The opportunity for interaction, particularly in Padlet (Adams, 2020; Zou & Xie, 2019), was appreciated by participants across disciplines as this allowed for regular synchronous and asynchronous work monitoring. Some suggested that a safe space for collaboration can impact engagement (Heilporn et al., 2021). As well as establishing student voice, interaction opportunities motivated students to complete tasks and allowed lecturers to assess topic comprehension. The most innovative examples of student interactions were when lecturers used technology to redefine teaching activities. Web 2.0 platforms like Padlet removed time zone and distance barriers. Additionally, students could collaborate through face-to-face and online environments (Alghamdi et al., 2021; Oliveira et al., 2021; Sharma & Alvi, 2021). Faculty reflections demonstrated the utility of tools in achieving teaching and learning goals as a significant “student advantage”, representing the first overarching theme from the focus group data.

Effort expectancy (EE) refers to the ease of tool use (Venkatesh et al., 2003), and usability featured in participants’ reflections as a key “faculty advantage”, with time-saving tool features motivating continued implementation. For example, Calendly streamlined student consultations and specific functions on Kahoot! allowed for quick knowledge checking in large classes (Wang & Tahir, 2020). QR code generation made supplementary class materials accessible. It allowed rapid, synchronous student responses to questions, whereas asynchronous activities on tools like Kialo allowed students to consider their answers, removing the pressure of immediate response. The “unique features” of several tools valued by participants highlighted their diverse needs. Four participants reflected on the importance of purposive technology usage. Shinas and Steckel (2017) noted, participants stated that learning outcomes should be prioritised above tool use. Choosing specific useful tool components was important, as was striking the right balance, achievable by using the tool supplementary to the lesson rather than making it the focus.

Recommendations made regarding training to ensure consistent quality aligns with the construct of facilitating conditions (FC; Venkatesh et al., 2003), and this was also evident in past research on how organisational infrastructure can support technology use (Epps et al., 2021; Lassoued et al., 2020; Leo & Puzio, 2016). Participants also suggested that this might increase usage self-efficacy, relieve their feelings of being overwhelmed and mitigate the time it takes to create these resources (Brown, 2016; Rasheed et al., 2020). Faculty would have more time to experiment with new, valuable tools in this virtuous circle. Nonetheless, participants highlighted the complexity of some tool

features and other technical challenges. Disadvantages of technology usage, such as connectivity issues, would not be evident in traditional classroom practice. Despite recommending that institutions build resilience in their systems, Dhawan (2020) urged educators to have a contingency plan. Two participants echoed this, noting the need for planning by faculty, rather than the organisation, to overcome such limitations. Collectively, our findings suggest that equal effort from faculty and the institution may be necessary to facilitate an environment conducive to technology adoption.

The goal of this study was not to compel faculty to use eLearning tools in their long-term teaching practice. The action research process facilitated faculty to try tools, see what works for them and what does not, and sustain their use beyond the first or second attempt. University faculty predominantly work independently, meaning they do not always know their colleagues' teaching methods, their usage of additional learning tools, and their perceived outcomes. Developing communities of practice could overcome the potential disadvantages of investing in new tools without ensuring continuity of effort. In doing so, higher education institutions would be better positioned to empower faculty by including them in the decision-making process of using eLearning tools to enhance their teaching and learning practices. The findings of this study may be relevant to those working in higher education, including faculty, management, and those working in supportive IT and teaching and learning roles. Higher Education institutions are encouraged to consider creating a community of practice that fosters knowledge exchange, particularly focusing on knowledge related to using eLearning tools to optimise teaching and learning practices.

The real-world nature of this action research study resulted in some limitations which must be considered when assessing the findings. Our study focused on what can happen when educators are supported in tool usage through structured support and a community of practice. However, the sampling strategy meant participants who opted-in – even those classified as “novices” – were open to trialling eLearning tools. Thus, this study likely failed to include those who were averse to tool usage. Those seeking to enhance eLearning tool use in their organisations should review this when considering findings from the current study. Before data collection, researchers were also concerned about socially desirable responses due to their “insider” position. However, respondents were as frank about their perceived failures (including when they did not use tools or the tools used did not achieve the preferred outcomes) as their successes (tools helped engagement and learning outcome attainment).

Although digital tools should be accessible to faculty who need them, our findings do not suggest mandating tool adoption. Indeed, previous studies have shown that buy-in is essential; its absence may foster resentment and push-back (Arshad-Ayaz et al., 2022; Burhenne et al., 2018). The process of critical evaluation in the current study demonstrated that eLearning tool adoption is a step-by-step process. Sample heterogeneity allowed response and experience diversity but provided breadth, rather than depth, of attitudes about specific tools. As a result, future research may benefit from focusing on one department where faculty teach similar courses; thus, their chosen digital resources may be similarly applicable in their practice. This study opens several avenues for future research, including incorporating student perspectives on technology adoption and subsequent academic performance. Moreover, it is crucial to understand whether tools remain used in the longer term when their potential novelty has worn off for both faculty and students. Institutional subscription fees for some eLearning tools make this a costly investment, one best taken with due consideration of their longer-term application.

This project sought to understand the motivations of educators to experiment with eLearning tools in the hybrid learning environment and whether their perceptions changed because of the reflective intervention. Findings illustrated that eLearning tools retained a role for most faculty in their practice, but this was not uniform across tool types, applications, or disciplines. Thus, a one-size fits all approach to eLearning tool adoption by higher education institutions is not recommended. Instead, inviting faculty to try tools, reflect upon what they can offer in teaching and learning, and voice their opinions in managerial purchasing decisions may best ensure both tool use and utility. Though small in scale, the current research findings demonstrate the motivations

and perceptions of faculty emerging from a challenging time for educators and looking towards a new era of judicious technology integration in teaching and learning.

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