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An exploratory study to understand faculty members' perceptions and challenges in online teaching

Tausif Mulla[1] · **Sufia Munir**[2] · **Vivek Mohan**[3]

Abstract

The government of the United Arab Emirates (UAE) considers technology to be one of the main pillars of its vision for moving towards a knowledge-based society. Due to several factors such as globalisation, demand for information technology infrastructure and COVID-19 lockdowns, e-learning has become a popular method of delivery across higher education institutions in the UAE. In a first step, the authors of this article conducted a systematic review of existing literature (49 items published between 1999 and 2020). They found that the existing literature on online learning predominantly focuses on student-specific challenges, while there is still a dearth of published work covering faculty members' specific challenges in facilitating online learning in the UAE. The second part of this exploratory study drew on stakeholders' reflections of several years of designing and delivering online courses, analysing faculty members' perspectives on online teaching and learning in the UAE. The authors present their qualitative research, which involved open-ended semi-structured interviews with 15 faculty members, followed by a thematic analysis of their responses using NVivo 12 pro software. The most critical themes which emerged were learners' expectations, culture, perception, pedagogy and technology. The article also reveals how these topics contribute to the various strategies for seamless adoption and delivery of online education in the UAE.

✉ Tausif Mulla
  tausif@westford.org.uk

  Sufia Munir
  sufia@westford.org.uk

  Vivek Mohan
  vivek@westford.org.uk

1 Faculty of Business Management, Westford University College, Sharjah, UAE

2 Faculty of Business Management & Fashion Design, Westford University College, Sharjah, UAE

3 Westford Education Group, Exeed College, Sharjah, UAE

Résumé

Une étude exploratoire pour comprendre les perceptions et les défis des enseignants dans l'enseignement en ligne – Le gouvernement des Émirats Arabes Unis (EAU) considère la technologie comme l'un des principaux piliers de son projet d'évolution vers une société axée sur la connaissance. En raison de plusieurs facteurs tels que la mondialisation, la demande d'infrastructures pour les technologies de l'information et les confinements dus au COVID-19, l'apprentissage en ligne est devenu une méthode d'enseignement populaire dans les établissements d'enseignement supérieur aux EAU. Dans un premier temps, les auteurs de cet article ont procédé à une revue systématique de la littérature existante (49 articles publiés entre 1999 et 2020). Ils ont constaté que la littérature existante sur l'apprentissage en ligne se concentre principalement sur les défis propres aux étudiants, alors qu'il y a encore peu de travaux couvrant les défis spécifiques aux membres du corps enseignant pour faciliter l'apprentissage en ligne aux EAU. La deuxième partie de cette étude exploratoire s'est appuyée sur les réflexions de différents acteurs sur plusieurs années de conception et d'enseignement de cours en ligne, analysant les perspectives des membres du corps enseignant sur l'enseignement et l'apprentissage en ligne aux EAU. Les auteurs présentent leur recherche qualitative, qui comprend des entretiens semi-structurés ouverts avec 15 membres du corps enseignant, suivis d'une analyse thématique de leurs réponses à l'aide du logiciel NVivo 12 pro. Les thèmes les plus importants qui ont émergé ont été les attentes des apprenants, la culture, la perception, la pédagogie et la technologie. L'article révèle également comment ces sujets contribuent aux diverses stratégies pour une adoption et une diffusion harmonieuses de l'enseignement en ligne aux EAU.

ملخص

دراسة استكشافية لفهم تصورات أعضاء هيئة التدريس والتحديات في التدريس عبر الإنترنت ---- تعتبر حكومة **دولة الإمارات العربية المتحدة** أنّ التكنولوجيا هي إحدى الركائز الأساسية لرؤيتها في التوجه نحو مجتمع قائمٍ على المعرفة. ونظرًا لعدة عواملٍ مثل العولمة والطلب على البنية التحتية لتكنولوجيا المعلومات، وإغلاق COVID-19، أصبح التعلُّم الإلكتروني وسيلة شائعة للتسليم عبر مؤسسات التعليم العالي في الإمارات العربية المتحدة.وكخطوةٍ أولى، أجرى مؤلفو هذه المقالة مراجعةً منهجيةً للأدبيات الموجودة (تم نشر 49 مادة بين عامي 1999 و 2020). ووجدوا أن الأدبيات الحالية حول التعلم عبر الإنترنت تركز بشكلٍ أساسي على التحديات الخاصة بالطالب، بينما لا تزال هناك ندرةٌ في الأعمال المنشورة التي تغطي التحديات المحددة لأعضاء هيئة التدريس في تسهيل التعلم عبر الإنترنت في الإمارات العربية المتحدة.واعتمد الجزء الثاني من هذه الدراسة الاستكشافية على انعكاسات أصحاب المصلحة لسنواتٍ عديدةٍ من تصميم وتقديم دوراتٍ عبر الإنترنت، وتحليل وجهات نظر أعضاء هيئة التدريس حول التدريس والتعلم عبر الإنترنت في الإمارات العربية المتحدة. وقدَّم المؤلفون أبحاثهم النوعية، والتي تضمنت مقابلاتٍ شبه منظمةٍ مفتوحةٍ مع 15 من أعضاء هيئة التدريس، متبوعًا بتحليلٍ موضوعي لاستجاباتهم باستخدام برنامج NVivo 12 Pro.

و كانت الموضوعات الأكثر أهمية التي ظهرت هي توقعات المتعلمين ، والثقافة ، والإدراك ، وعلم التربية والتكنولوجيا. يكشف المقال أيضًا عن كيفية مساهمة هذه الموضوعات في الاستراتيجيات المختلفة للتبنّي السلس وتقديم التعليم عبر الإنترنت في الإمارات العربية المتحدة.

Introduction

Based on the current trends in online education, it is apparent that one of the reasons driving most higher education institutions (HEIs) to offer online programmes is to ensure that they stay competitive. Online courses have seen a rapid increase in enrolments, and HEIs have shown keen interest in providing quality education to satisfy the demand. According to Bilquis Ferdousi (2016), the economic downturn [2007–2009] prompted higher interest in online education, since it was recognised as a more affordable means of learning. Also, the ongoing situation presented by COVID-19 has revealed that the importance of online learning is likely to increase in the future as the world tries to keep going during phases of extreme disruption. According to figures released by the United Nations Educational, Scientific and Cultural Organization (UNESCO n.d.), around 1.3 billion learners around the world could not attend a school or university as of 23 March 2020 due to the lockdowns caused by the spread of COVID-19 (McCarthy 2020, referring to UNESCO n.d.). The pace of these closures and the rapid push towards online learning further emphasised its importance. Brittany Hunt and Beth Oyarzun mention that "every faculty member is going to be delivering education online, and every student is going to be receiving education online" (Hunt and Oyarzun 2020, p. 10).

Since 2009, the United Arab Emirates (UAE) has witnessed incredible growth in the number of internet users which has been possible due to uninterrupted online access and connectivity. This in turn has enabled learners to pursue higher education which was previously out of reach due to visa requirements, exorbitant fees and work commitments. The surge in demand for online courses has raised questions about the quality of education and highlighted the challenges of maintaining the same standards as on-campus delivery (Elison-Bowers et al. 2010). Although many researchers believe that online and on-site courses are equally effective in terms of knowledge provision and acquisition, the tools and strategies implemented in imparting the knowledge and facilitating learning need to be tailored to the mode of instruction (Jacobs 2013). Faculty members teaching courses online face several challenges which include managing diverse content suitable and relevant for the larger student community, mastering technological skills, managing time, and being innovative in delivering the course (Burchum et al. 2007). They have to be extremely aware of learners' backgrounds to be able to provide an "inclusive classroom environment" (Hunt and Oyarzun 2020, p. 3). In an online satisfaction survey conducted by Elaine Strachota (2003), "learner–content interaction" ranked first as a determinant of student satisfaction, followed by "learner–instructor and learner–technology interaction" (Cole et al. 2014, p. 113; referring to Strachota 2003). These findings emphasise the integral role of faculty members in achieving student satisfaction in online courses.

Purpose of our study

Internationally, there is a paucity of literature on challenges specifically encountered by faculty members, since the majority of available articles are conceptual papers and literature reviews with no data to substantiate the arguments presented. Other studies have a narrow focus, e.g. on challenges related to interpersonal interaction (Mehall 2020), workload (Gregory and Lodge 2015), institutional support (Orr et al. 2009), and design and delivery of online learning (Tham and Werner 2005). Some studies have focused on student-specific challenges in online education (Childs et al. 2005), but have not considered faculty members' perspective.

This is no different in the UAE, where recent studies on e-learning focus primarily on learners; their perceptions (Awofeso and Bamidele 2017; Vrazalic et al. 2010), interactions (Abulibdeh and Syed Hassan 2011) and satisfaction (Al-hawari and Mouakket 2010; Sher 2009). Other studies are based on identifying factors that impact the adoption of instructional technologies by faculty members teaching computer information sciences (Daouk and Aldalaien 2019) and Islamic teachers' perception of integrating ICT into teaching in public schools in the UAE (Al-Gumaei et al. 2019). Considering that business is one of the most popular disciplines in higher education in the UAE (UAE MoE 2019; Reynolds and Rizvi 2019), and is offered extensively via the online mode, it is important to understand the challenges encountered by university teaching staff delivering business management courses to students from around the globe. The study we are presenting here intends to bridge this knowledge gap by considering the perspectives of faculty members delivering online courses in the UAE. Understanding their situation will help other academics and practitioners who are facing similar challenges.

Research questions

1. What are the content-specific challenges faculty members encounter in online delivery?
2. What are the challenges faculty members encounter in interacting with learners in an online class?
3. What are the institutional challenges faculty members encounter that impact the delivery of online classes?

Literature review

According to a report entitled "Where to invest now in GCC private education"[1] released by the Boston Consulting Group (Hoteit et al. 2018), the UAE's education market was expected to grow from USD 4.4 billion in 2017 to USD 7.1

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[1] GCC stands for Gulf Cooperation Council, also known as the Cooperation Council for the Arab States of the Gulf. It is an alliance of six countries, established in 1981. Its member states are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. For more information, visit GCC's official website at https://www.gcc-sg.org/en-us/AboutGCC/Pages/StartingPointsAndGoals.aspx [accessed 12 April 2023].

billion by 2023. Because of emerging digital technologies in recent years, the higher education sector has witnessed significant changes in teaching and learning practices in the UAE, but as yet few HEIs have joined the bandwagon to provide *flexible* online learning options to both on-campus and distance learners. In the past, some researchers did find e-learning to be a better option than face-to-face learning, provided the pedagogy of the courses was of high quality and appealed to online learners (Islam et al. 2015). However, recent studies have shown that the unprecedented growth in e-learning has brought significant challenges to educational stakeholders, mainly to teaching staff, since online education delivery has a learning curve (Ferdousi 2016). Coupled with high demand, a new spectrum of challenges has emerged for faculty members, including workload increase. It is evident from the literature on the topic that online teaching required teaching staff to invest "a minimum of 14% more time than traditional instruction, most of which was spent presenting instructional content" (Ruth 2018, p. 15, quoting Tomei 2006).

Achieving student satisfaction is another challenge for teaching staff. According to Rustam Haydarov et al. (2013), in higher education, considerable research efforts are being made to address the attrition and retention rates that are associated with institutional performance. In many countries, public reputation and government funding for educational institutions are directly linked to their ability to retain students. While researchers have highlighted the challenges of student retention and satisfaction in online education over the years, not much has been discussed about faculty members' struggles with successful online delivery.

Higher education administrators are under tremendous pressure to keep up momentum with an ever-changing e-learning environment, as online classes become more popular and accessible. With the rapid increase in online learning, quality has come under scrutiny. Commissioned by the National Education Association (NEA), the Institute for Higher Education Policy (IHEP) in the United States published a report which provided quality guidance for distance learning institutes (IHEP 2000, 2014). The requirements are divided into seven separate categories: (a) institutional support; (b) course development; (c) teaching/learning; (d) course structure; (e) assistance to students; (f) instructional assistance; and (g) assessment and review (Tham and Werner 2005, referring to IHEP 2000, 2014). In terms of workload, online teaching has been reported to take twice the time in comparison to traditional instruction, making it complex and challenging for faculty members, potentially leading to burnout. Administrators of higher education institutes (HEIs) who try to replicate traditional on-campus teaching methods in the e-learning environment struggle to get the same output. Often, traditional training approaches do not readily translate into e-learning (Elison-Bowers et al. 2010). This can lead to frustration and low satisfaction among both teaching staff and students. According to Joel Hartman et al. (2000), faculty members' satisfaction and effective student learning are highly correlated.

The role of interaction in online learning

Interaction is critical in online learning. It helps create a sense of community and encourages participation. Interaction also allows instructors to get to know their students and understand their needs. According to Terry Anderson (2008), there are six key components of online learning:

(1) *Student–student interaction* is one of the key components of online learning environments. According to modern constructivist and connectivist theorists, peer-to-peer interaction is essential to researching and developing multiple perspectives. Collaborative learning and student-led teams promote "reciprocal teaching" and build communities of learners. Moreover, research indicates that peer-to-peer interaction is key to effective learning, as it provides an opportunity for learners to discuss and formulate ideas and reflect on their thoughts. Since traditional means of interaction such as meeting in the library and on campus are not possible in an online setting, it becomes the responsibility of faculty members to facilitate peer-to-peer learning, for example by designing quizzes, discussion boards and group activities (Chandra and Palvia 2021). This implies that faculty members must be trained to use information and communication technologies (ICT), since the requirements in an online class are quite different from an on-site one (Lai et al. 2019).

(2) The importance of *student–content interaction* in formal education and online learning cannot be overstated. The opportunities offered by the internet include interactive content that responds to student behaviour and allows for customising content to meet the needs of each learner.

(3) *Student–teacher interaction* is supported in a variety of ways through online learning, including text, audio and video communication. Since online courses are less teacher-centric than traditional classroom sessions, learners are more likely to become committed to and engaged in their learning.

(4) *Teacher–content interaction* examines content created by the teacher, such as learning objects, units of study, complete courses and associated learning activities. Interaction between teachers and course content facilitates the monitoring, planning and updating of course content resources and activities.

(5) *Teacher–teacher interaction* enhances professional development and allows teachers to support each other. As a result of these interactions, teachers have the opportunity to gain knowledge and discover new things in their subject area as well as within their scholarly community.

(6) *Content–content interaction* is a new mode of educational interaction which involves content continually updating as it interacts with other automated information sources.

To create solid online learning contexts, these six modes of interaction, along with a learning environment which is conducive to learning, are essential. They serve as the basis for Anderson's e-learning model. However, as mentioned earlier, despite

the growth in e-learning, the current literature lacks a critical perspective on the challenges encountered by teaching staff.

Based on our systematic review of existing literature,[2] we identify the challenges encountered by faculty members in online delivery concerning (a) interaction with and among students; (b) content; and (c) institutional support.

Faculty member–student interaction challenges

Traditionally, faculty members are considered to be the "sage on the stage" (King 1993, p. 30) who primarily sets the educational goals and provides most educational content. But in the online learning environment, the faculty member is often described as a "guide on the side" (ibid.). Papia Bawa refers to instructors "unable to keep up or understand the language of the digital native community" as "digital immigrants" (Bawa 2016, p. 6; citing Prensky 2001).

Defining student expectations

With the exponential growth in e-learning, a unique set of challenges need to be addressed. What is needed first of all is a clear definition of instructor performance in the online teaching environment. Faculty members and learners must be prepared for technical problems in the online classroom, and instructors should communicate expectations and policies with the learners before the commencement of the course (Elison-Bowers et al. 2010; Stoffregen et al. 2015). Before or during the beginning of the course, learners may have queries such as will faculty members be available on weekends or after college hours? How soon can the learner expect an answer? Setting these standards will help reduce the number of repetitive e-mails and telephone calls and increase student satisfaction.

Multiple roles played by faculty members

In recent years, universities and colleges have tried to extend the scope of work and career paths for their teaching staff. Today, faculty members are expected to take up roles that go beyond teaching, in both qualitative and quantitative terms. While teaching itself is multi-faceted, the instructor is not only the facilitator but also expected to be the instructional designer, subject-matter expert and course manager (Conceição 2006; Zhen et al. 2008). Furthermore, it is common today for a faculty member to be promoted to "team leader" or "head of learning and development" or other similar designations. These added roles and responsibilities have an impact on the quality of the delivery (Andersson and Gronlund 2009).

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[2] A summary table of the 49 items included in our systematic literature review (providing author name[s], publication year, sample size, methodology, research location, findings, and limitations and scope of future research) is available at https://docs.google.com/document/d/1u7JuiJ5Fl6-M_m4j1e A7derOYkSBum-T/edit?usp=sharing&ouid=114482687801984676698&rtpof=true&sd=true.

Building rapport with online learners

In a typical classroom setting, to build a successful learning environment, a faculty member uses their understanding of the audience, and learners' reactions are monitored by body language evaluation, verbal responses and eye contact, which is not possible in an online class (McLendon and Albion 2000). For this reason, some institutions have promoted blended learning to personalise the course and establish deeper relationships with the learners. In the virtual environment, a fun, coherent and relaxed learning atmosphere should be built using digital communication tools, but accomplishing this is not easy, since the medium does not detect non-verbal messages, making it challenging for faculty members to build a rapport with the learners.

Cultural factors

A complete understanding of culture, and particularly its value and impact in online courses, is a complex undertaking. Within most learning communities, there is a dominant culture that affects all the other components. In academic settings, culture is often taken for granted by the instructors as well as the management. Researchers like Lejla Vrazalic et al. (2010) discuss linguistic and cultural factors linked to the usage of online learning tools for international students. They observe that

> linguistic factors ten[d] to have more impact on the participants' actual use of online resources while cultural factors ha[ve] greater influence on their wider educational experience (ibid., p. 3; quoting Hughes 2005).

Moreover, while faculty members who are native speakers do not have to worry about the language of instruction, they may have to "deal with a different teaching/learning culture" with "different expectations of teacher role models and status" (Beaven et al. 2010, p. 16). An important part of this discussion is the cultural background of the learners. Culture does not only affect learning, motivation and satisfaction in a course, but also has an impact on the overall classroom experience. Every individual has a different learning style and expectations, which needs to be considered in e-learning (Ali et al. 2018).

Lack of social interaction among students

A recent study in the *Chronicle for Higher Education* (Blumenstyk 2019) indicates that dropout rates for distance learners recorded by institutions range from 20% to 50%. However, online course dropout rates are often 10% to 20% higher in distance offerings as compared to on-site courses (Kataeva and DeYoung 2018; Sahin and Shelley 2008). Research indicates that interaction between the faculty member and learners is important to student success and retention (Ali et al. 2018). Learners have reported feelings of isolation, lack of self-direction, and eventually a decrease in motivation levels. According to Alfred Rovai and Mervyn Wighting (2005), social integration of learners and the involvement of faculty members in online courses affect students' overall experience of learning.

Grading of learner's work

In a study conducted in the early days of online learning, Robert Sellani and William Harrington (2002) found that online teaching was more labour-intensive than traditional delivery, since faculty members need more time to grade assignments and respond to queries. The challenge for online educators is to design efficient systems for obtaining, monitoring, grading, reporting and returning assignment work (Conceição 2006; McLendon and Albion 2000). Robert Taylor (2002) identified challenges such as obtaining instant feedback in asynchronous classes, planning and scheduling an online class based on the learner's time zone, managing in-class participation with more than twelve learners, distraction among learners, and technological support. In addition to the above-stated challenges, pressing challenges faculty members find themselves facing also include handling students' inquiries, teacher–learner interaction, peer-to-peer interaction, responsive teaching, language barriers, lack of training on e-learning, responding to queries on online discussion boards, and grading assignment submissions are (Ali et al. 2018; Conceição 2006; McLendon and Albion 2000; Hebert 2007; Panda and Mishra 2007).

Teacher–content challenges while developing and delivering

Faculty members not only have a tight time frame for completing student assessment evaluations, but are also expected to design a course in the language of digital natives that would meet the needs of a diverse student body with a wide spectrum of experience and technical expertise (Rosenjack et al. 2007; Al-hawari and Mouakket 2010). These challenges can be categorised as follows:

Online pedagogy

The current literature seems to accept that online education is different from on-site face-to-face education, and requires the creation of an adapted pedagogy. Creativity is required from instructors to create a course in an online learning context that keeps learners engaged. To monitor or improve students' intellectual skills, faculty members operating in virtual classrooms are required to use relevant tracking tools such as Google Jamboard, Kahoot and Survey Monkey (Baran et al. 2011; Elison-Bowers et al. 2010; Tham and Werner 2005). Although pedagogy is important in leading a deeper learning process, effective learning in virtual classrooms is driven by collaboration among students and instructors. According to Mohammad Al Gamdi and Ahmad Samarji, a "lack of instructional design support for e-learning" (Al Gamdi and Samarji 2016, p. 26) is one of the barriers faculty members find themselves facing.

Quality of content

It is important to mention that the consistency of a learning process is not what an e-learning provider offers a learner, but rather a collaborative effort between the

learner and the learning environment. Hence the quality has to do with inspiring and motivating the student. According to Dawn Birch and Bruce Burnett, student engagement varies in an online learning environment depending on the quality and amount of course content, e.g. "providing manageable 'chunks' of information" (Birch and Burnett 2009, p. 127). Alec Sithole et al. (2019) and Justin Ortagus and Luke Stedrak (2013) suggest six quality parameters in e-learning: tutor support, cooperation and communication in the course, use of technology, cost-value expectation, information transparency and course structure.

Maintaining the content

The time required to develop technical skills, incorporate technology and manage the curriculum is a major area of concern for academics. The risks of slipping into obsolete material are high due to the abundance of free online content. A variety of factors can hamper or prevent content updates in courses, which include an absence of dedicated resources (budget, time, expertise), lack of administrative will, and protectionism against existing curricula on the part of curriculum developers (Hai Jew 2010). E-learning content developers, therefore, find it challenging to determine how to organise a curriculum that best fits learners' requirements but also allows for structural flexibility for future updates in the course. Another challenge for faculty members in maintaining the content is the failure to customise/adapt content to local culture, language and religious beliefs.

Adapting to learning styles and culture

Cheryl Holly et al. (2008) argue that the challenge for online teaching staff involves recognising and appreciating the learning style of remote students. In recent times, Nurul Islam et al. (2015) identified challenges related to learning styles and culture, pedagogical e-learning, technology, technical training and time management. The same set of challenges was also identified by other researchers (Babie et al. 2016). In the last decade, lack of training on e-learning and inadequate professional development helping teachers to understand learner styles emerged as the most common challenges encountered by faculty members in online delivery.

Other challenges identified by researchers were related to faculty members' ability to cater to students' different learning styles, time management, immediate response to queries, and technical support. With e-learning continuing to spread, educators were found to struggle with developing pedagogy-based content for modules and catering to the different learning styles of the students as they lacked the necessary skills (Islam et al. 2015).

Faculty members' challenges and institutional support

In the last two decades, online education has become increasingly popular in the higher education sector, and most institutions agree that this form of learning will be vital to the future of education. As more and more universities move to online

delivery, the pressure for change in teaching and learning practices has risen. Faculty members have expressed concern regarding the adequacy of institutional support, the transition in interpersonal relationships, and the effectiveness of online teaching and learning (Bower 2001). Although the development of an engaging distance learning course involves a significant commitment in terms of time and energy for an educator, many institutional administrators consider moving a course from the traditional classroom into an online format as part of the regular workload (ibid.).

Workload

Elaine Allen and Jeff Seaman (2014) conducted an exhaustive survey of 10,000 faculty members at 69 institutions. In this study, 85% of their respondents said developing an online course takes more effort as compared to face-to-face teaching. Julian Betts (1998) emphasises that incorporating and implementing e-learning technologies has an impact on the workload of academics (Birch and Burnett 2009; Chou and Tsai 2002; Hiltz and Turoff 2005; Mashile and Pretorius 2003; Shea et al. 2002; Tham and Werner 2005; Yang and Cornelious 2005). Other studies (DiBiase 2000; Hislop and Ellis 2004; Visser and Molin 2022; Ali and Leeds 2009) have addressed the issue of faculty members' workload by comparing prior regular classroom teaching with online teaching. Several researchers have claimed workload issues are the greatest hurdle in online education adoption, as educators consider the workload to be higher than that of conventional courses (Bolliger and Wasilik 2009; Al Gamdi and Samarji 2016; Maguire 2005; Mihhailova 2006). Also, the lack of incentives to balance additional workload (Cook et al. 2009; Gregory and Lodge 2015) made faculty members feel that e-learning was forced upon them rather than being a natural part of institutional operations (Nichols 2008). David DiBiase notes that the effectiveness and efficiency of an online course are directly related to "the amount, and the quality, of the instructional design and development effort that produced it" (DiBiase 2000, p. 19). Faculty members who are situated at the root of this growing demand and under pressure to teach online are forced to reconsider their underlying assumptions about teaching and learning, and the roles they take on as educators.

Institutional pressures on faculty members

In online education, lower staffing costs and greater flexibility in scheduling compared to traditional teaching have appealed to institutional management across the board. A 1998–1999 national faculty member study conducted by the Higher Education Research Institute (HERI) of the University of California, Los Angeles (UCLA) found that two-thirds of college and university faculty members considered it difficult to keep up with information technology (IT). In the study, faculty members rated IT above research/publication demands, teaching load, and tenure/promotion as significant stressors (Ardichvili 2008; Bower 2001; Childs et al. 2005; Holly et al. 2008). Besides, faculty members have also raised concerns over the pressure to maximise profits at the expense of educational quality (Herbert 2006; Kebritchi et al. 2017).

Lack of administrative support

Emory McLendon and Peter Cronk (1999) and Arold Visser and Magdalena Molin (2022) suggest that the content development, delivery time, and effort may partially depend on the level of institutional support. Similar challenges are echoed by Beverley Bower (2001); referring to a survey carried out by the National Education Association (NEA), she notes that while institutional incentives known to encourage teaching staff to get involved are workload adjustments, release time and monetary support for advancement, the study (NEA 2000) found this form of support to diminish with the adoption of e-learning. Likewise, other research found insufficient support from top management (Alebaikan and Troudi 2010; Ali et al. 2018; Bolliger and Wasilik 2009; Willging and Johnson 2009), lack of professional development programmes (Ali et al. 2018; Al Gamdi and Samarji 2016), lack of formal e-learning policies (Panda and Mishra 2007), and unavailability of quality hardware and software to be some of the challenges teaching staff find themselves facing due to lack of administrative support.

Remuneration, job retention and lack of training

The current literature illustrates that university staff remuneration is no different for online, blended, or face-to-face on-site classes. At most institutions, permanent and tenured faculty members receive a salary, not compensation for each course. Stephen Ruth (2018) presents a contrasting view on the remuneration and job retention of faculty members based on an article by George Schell (2004). Ruth explains that in a traditional face-to-face setting, faculty members' appraisal is "based on three fundamental criteria – teaching, publications/research, and service" (Ruth 2018, p. 14), putting extra pressure on the performance of staff having to accommodate online teaching in their workload.

Apart from remuneration and job retention, researchers have pointed to a lack of training as a big concern. For HEIs, the focus is more on designing and introducing online courses quickly to maximise enrolment, rather than building a pool of well-trained instructors to enhance the standard of delivery. Online teaching quality is closely tied to an institution's ability to address obstacles faculty members encounter in the development and instruction of online courses. Such hurdles include (a) remuneration and time; (b) change in the organisation; and (c) technological skills, support and infrastructure (Lloyd et al. 2012; Orr et al. 2009). Doris Bolliger and Oksana Wasilik (2009) found inadequate compensation and inequitable reward systems for promotion to be key factors influencing faculty members' satisfaction with online teaching and learning in higher education.

Lack of training and professional development

Jennifer Herman (2012) identifies various professional development programmes available for online teaching staff, namely self-teaching, peer mentoring, collaborative course design and synchronous online training. Referring to Herman's study of 821 institutions (ibid.), Sharla Berry notes that "only 53% offered synchronous

training and 32% had formal mentoring programs" for online teaching staff (Berry 2019, p. 123). However, Leslie Pagliari et al. (2009) have a different perspective of faculty member training. They observe that faculty members do not participate in online training when it is available; the reasons being limited scope and the absence of resources for active learning. Similarly, Yoon Hi Sung et al. found that while technical information was helpful in professional development, the training was deemed useless, as it was not linked to their specific teaching needs (Sung et al. 2018).

Technology

Many faculty members do not have a sufficiently fast internet connection for online courses, which results in poor student satisfaction. Existing literature highlights a lack of network stability, difficulties with hardware and latency concerns. According to Birch and Burnett (2009), the cost of innovation and software combined with limited monetary resources creates an obstacle both for institutions and academics in adopting and integrating educational technology. The failure to make use of education technology is often due to the lack of specialised technical assistance (Al-Adwan 2020; Awofeso and Bamidele 2017; Daouk and Aldalaien 2019; Mehall 2020; Regmi and Jones 2020). A study conducted by the University of California, Los Angeles (Stolzenberg et al. 2019) revealed that faculty members found keeping abreast with IT more stressful compared to research obligations.

Job security

According to Mark Nichols (2008), challenges encountered by faculty members teaching e-learning courses are time commitment, workload concerns, IT support and lack of sufficient staff development. Other challenges are lack of: time, incentive, cooperation, building relationships, compensation, a reward system, and the standard of teaching in a virtual setting (Angelino et al. 2007; Bolliger and Wasilik 2009; Mihhailova 2006). To these identified challenges, Micki Washburn et al. add that the most significant obstacle faced by faculty members is job security. They assert that from the outset, it was evident that the goal of utilising information technology to improve education was at risk of being overshadowed by less admirable objectives such as profit-making, cost-cutting, and decreasing the reliance on full-time professors (Washburn et al. 2021).

Furthermore, Sithole et al. (2019) agree with Khe Foon Hew and Wing Sum Cheung's (2014) views about job security and add that pedagogy, large class sizes, academic dishonesty, lack of connection with students, too many e-mails and lack of student self-discipline are the pressing challenges. Similarly, presenting a staff development initiative in New Zealand, Cathy Gunn and Mary Panko (1998) address the expectation that besides already challenging tasks, such as research and obtaining higher-level training, academics adopt technologies like e-learning, which adds to their existing workload. A vast number of educators have still not subscribed to the idea of online teaching as a full-time medium of instruction. Given the high growth rate of online instruction in higher education and the scenario of limited research on

managing online teaching in the UAE, it is imperative to delineate the expectations of online teaching and examine the related challenges.

We complement our systematic review of existing literature (49 items published between 1999 and 2020)[3] with qualitative research. This involved open-ended semi-structured interviews with 15 teaching staff in the UAE, followed by a thematic analysis of their responses.

Methodology for the qualitative part of our study

The research design we selected for this part of our study was qualitative in nature, using interviews. Sharan Merriam (2019) argues that qualitative methods are often critical in understanding how participants make meaning of the problem being studied. Jack Fraenkel and Norman Wallen (1993) state that a deeper understanding of any phenomenon could be provided by qualitative research. This prompted our choice of a qualitative approach to better understand the issues related to online teaching in the context of higher education in the UAE beyond just determining cause and effect.

We conducted in-depth semi-structured interviews to gain a deeper understanding of each respondent's articulations and to capture their experiences first hand. We reckoned that an open-ended style of inquiry would help us to obtain more voluntarily shared opinions and to avoid the potential bias from restricting responses to the researcher's fixed categories on the challenges and issues of online teaching. We obtained ethical clearance from Westford Education Group, and informed written consent from all participants.

Sample selection and data collection

Our key informant group for this study was faculty members who were involved in the planning, design and delivery of online business management courses in the higher education sector in the UAE for at least five years. We used a purposive sampling approach which involves the selection of informants based on an important characteristic under study. Moreover, as noted by Eileen Gambrill (1991), in a purposive sampling approach, the researchers determine the ideal sample based on their knowledge of the population and invariably the aims of the research itself. Respondents (N=15) were contacted in advance to arrange a convenient time for the semi-structured interviews, which averaged approximately 45–60 minutes in length and were conducted in English.

To explore the validity of the results, we applied member checking, ensuring that results were returned to participants to verify that their statements were rendered accurately and in line with their experience. Linda Birt et al. (2016) confirm that high-quality qualitative research is built on the trustworthiness and reliability of its results, and member checking is frequently mentioned as one of the validation

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[3] These items are marked with asterisks in the reference section.

methods. Each interview was video-recorded with the participant's permission and later transcribed by us, the researchers. We then proofread the transcripts and compared them with the recordings to pick up any discrepancies.

In the analysis below, we have included selected verbatim descriptions to provide context to the discussion. We also maintained field notes where we noted pauses, repetitions and tonality that supported a well-rounded analysis. Although we used NVivo[4] for data analysis, we listened to the recordings of the interview together to ensure that an accurate interpretation of the meanings had been noted. Hence the reliability was ensured by referring to the stability of responses. Their interpretation was an ongoing process in this study and was not relegated to the end of data collection – whenever we had doubts, we confirmed our understanding right away with the participants during the interview. This allowed our final analysis "to rest on more secure ground" (Kvale 2011, p. 156).

Table 1 outlines the semi-structured interview questions which we developed based on existing studies on learner issues, content issues and instructor issues. The first section involves background questions, followed by questions based on student-specific challenges (Section 2), content-specific challenges (Section 3), and institutional challenges teaching staff were facing (Section 4).

In a study by Greg Guest et al. (2006), the authors explain that saturation was achieved after as few as 12 interviews even though the total number of participants involved in the study was 60. Clark Moustakas (1994) argues that a small population—in our case, 15 participants—can justify the dissemination of new knowledge by producing patterns and identifying relationships. We limited our own analysis to 12 interviews, since a point of saturation was attained after 12 interviews and no new information could be gained.

Discussion and thematic analysis

Challenges to online teaching should be explored in detail, and as indicated by Virginia Braun and Victoria Clarke (2013), thematic analysis can help investigate the latent meanings, assumptions and ideas that lie beneath what is explicitly stated. Hence we chose a thematic method of analysis since it is not tied to any particular theoretical perspective as such, making it a very flexible method as argued by Moira Maguire and Brid Delahunt (2017). We used NVivo 12 pro to perform the thematic analysis for this research, a software which ensures easy and efficient coding which makes data retrieval easier. As suggested by AlYahmady Hamed Hilal and Saleh Said Alabri (2013), NVivo helps reshape and reorganise coding and node structure quickly. Through our thematic analysis, we identified five emerging themes: (1) learners' expectations; (2) culture; (3) lack of incentives for faculty members to engage in online teaching; (4) pedagogy; and (5) technology.

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[4] NVivo is a software designed for qualitative data analysis.

Table 1 Semi-structured interview questions

Section 1 Background questions	Are you an industry professional teaching online or a full-time academic? How long have you been teaching online in higher education in the UAE?
Section 2 Learner issues Based on: - (Li and Irby 2008; Washburn et al. 2021)	What do you think are the expectations of online learners in higher education in the UAE? Do you think learners have the required technical skills to engage in an online class? If yes, please explain. If no, please explain. Do you think cultural differences impact the ability to learn online in higher education in the UAE? Do you think building an educator–learner relationship via a digital platform is difficult in online education?
Section 3 Content issues Based on: - (Herman 2012)	Can you elaborate on issues concerning content development for online courses in higher education in the UAE? What do you think are the challenges in the use of multimedia for content creation and delivery of online courses in higher education in the UAE? How do you gauge the level of success of the existing content development techniques in online teaching in higher education in the UAE? What learning materials/resources would you like to use but do not have at your disposal?
Section 4 Instructor issues Based on: - (Anderson 2008)	What are the challenges you face in motivating and engaging online learners? Do you feel the transition from face-to-face to online teaching can impact an instructor's ability to deliver successful online courses in higher education in the UAE? If yes, please explain. If not, please explain why not. What is your take on communication barriers which exist in online teaching in the higher education sector in the UAE? Do you face any challenges in supporting students with special needs in an online environment? Do you think the different teaching styles can impact the delivery of online teaching in comparison with on-site delivery? If yes, please elaborate.
Further background questions	Have you undergone any professional development to enhance in-class engagement while teaching online? If yes, can you explain how it helped you with online teaching? Do you think the classroom capacity hinders the quality of online education? If yes, explain why, if not please explain why not. Do you think the compensation offered to an online faculty member is on a par with on-campus faculty members? If yes, explain why, if no, please explain why not. Would you like to provide any other information? Do you have any questions about the interview?

Emerging themes

Learners' expectations

"They want to make sure that everything is crystal clear and provided to them, that is a very important part so that when they are taking a module or any kind of an online course, they are clear about the what, why, and how. They also want to make sure that it's interactive because it is substituting the face-to-face on-campus mode of teaching." [Respondent 2]

"The issue is that most of the students do not know each other, have never met face to face, and have very little common context; therefore they hesitate in interacting in the class. Some students are more open than others in sharing their views and getting the faculty [member]'s attention while others feel alienated." [Respondent 7]

This theme refers to learners' expectations of online learning in higher education in the UAE. Our analysis revealed that online learners believe the clarity of the topic discussed in the class is essential. There is also a general expectation that the same level of support that is provided in on-site classes will also be provided in the online mode of delivery. While faculty members can facilitate learning through interactive group discussions and other class activities in on-site classes, the same is extremely challenging in the online mode owing to aspects such as varied internet speed, knowledge of interactive technologies, transparency, cultural differences, and students' motivation to engage in group activities online. In an online class, socialising with peers is limited, which in turn acts as a barrier to interactive class participation and knowledge sharing. Besides, most students in the UAE are from diverse backgrounds as the majority of the population are expatriates.[5] Other students undertaking the course from their respective countries base their expectations on their experience of undertaking courses in their home country, thereby making the management of expectations a difficult task for faculty members. Participants also identified the lack of trust-building opportunities and transparency in online classes as a key barrier to effective delivery. This theme and its analysis are also relevant to earlier studies on teacher–student interaction (Bawa 2016; Prensky 2001) where e-learners expected the instructors to understand their expectations and provide a very high level of learning support.

Culture

"See, cultural differences will be there in a country like UAE. After all, we are supposed to be a melting pot of different cultures, and different countries. We have more than a hundred nationalities, and of course, many of them come as our students with different needs and expectations." [Respondent 7]

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[5] According to Statista, "The United Arab Emirates has an estimated population of 10.54 million … Today just over a million of the residents in the United Arab Emirates are nationals, the majority of residents are expats and foreign workers. [The m]ajority of foreigner[s] in the United Arab Emirates originate from South Asia with Indian nationals in the lead" (Puri-Mirza 2022).

"Cultural differences have an impact because people from different cultures log in for a session and it also impacts the ability to learn because the culture is what defines the way you approach things and it is true with online learning as well." [Respondent 10]

"Culture" was revealed as another significant theme through our analysis, since culture in a way defines the approach to online learning in the context of the UAE, a melting pot of a variety of cultures. The theme contributes to studies such as those of Lejla Vrazalic et al. (2010) and Somnan Ali et al. (2018) where linguistic and cultural factors were linked to the usage of online learning and learning styles and expectations. The majority of the students enrolled in the UAE universities where our participants teach are non-English speakers, however, all the courses delivered are from UK and Australian universities and therefore in English. The assignments, lectures and class activities are primarily Western in their approach, but the students undertaking the study are mostly African and Asian, with very different learning orientations. Also, differences exist between African and Asian students in terms of ethnic and national orientation. These cultural differences have an impact on their learning, since some have an individualist approach towards their learning while others expect learning to be more collectivist.

Lack of incentives for faculty members to engage in online teaching

"They have high expectations about the quality of content in online learning. They believe that online teaching is very easy. And it is at your doorstep, which is underestimating your teaching workload. It is the method of delivering a session that has changed, not just the material which is to be taught." [Respondent 12]

"I mean if you are asking about compensation I feel now because of the advent of online learning with the open universities and reputed universities such as Harvard and Cambridge, a lot of these universities are flourishing with their online learning and platforms. Although overall, the remuneration of faculty [members] has increased, the additional workload and responsibilities are not being taken seriously." [Respondent 10]

The emergence of this theme from our analysis of participants' responses points towards the lack of adequate compensation offered to online teaching staff. It mainly adds to the existing study by Bolliger and Wasilik (2009) which identified inadequate compensation as a key problem area for online teaching staff. Our participants believed that their salary did not take into consideration the differences in teaching and the additional workload that comes with a new mode of delivery. All our participants expressed their view that the content delivered in a traditional on-site class is unsuitable for the online mode, therefore, they found themselves having to spend considerable time and effort in aligning the materials to the needs and requirements of the online students. Moreover, learning how to use new technological tools to deliver classes was mentioned as an additional pressure without any monetary incentives to motivate continuous learning and development.

Pedagogy

"I have realised that scaffolding[6] here is a major concern and needs to be critically planned as part of pedagogy." [Respondent 4]

"So, I think the use of illustrations matters a lot. And I think one of the ways to do it is to strongly understand your audience in an online mode." [Respondent 2]

The emergence of the "pedagogy" theme ties in with the existing models on pedagogy and the relevance of pedagogy in online learning discussed by Terry Anderson (2008) and Judith Harris et al. (2009). Our findings reveal that to achieve effective teaching and learning, "pedagogy" should be prioritised ahead of technology in online learning. Several other factors such as the use of graphic illustrations and critical feedback were also identified by our participants among the pedagogical elements of online learning in higher education in the UAE. Furthermore, the process of scaffolding students into the online learning environment was revealed as another major challenge in pedagogy in online learning in higher education in the UAE.

Technology

"Multimedia has evolved as a part of technology evolution. So, I feel in terms of multimedia the main challenge that one would be having is the resources to make all electronic devices compatible with the LMS [learning management system]." [Respondent 9]

"I think the internet itself is a big concern due to bandwidth issues. Let me give you an example of technological limitations – when we teach, we use our video and audio but the students respond to us via chat, the communication can be challenging." [Respondent 4]

The "technology" theme contributes immensely to the existing knowledge on the use of technology in online learning in higher education in the UAE. In the context of the UAE, this theme ties in with Sithole et al.'s (2019) quality parameters and also reveals faculty members' challenges due to students' increasing use of smartphones and tablets as important technology components in higher education in the UAE. The theme reaffirms that even though such components help in collaboration and facilitation, there still exists a gap in terms of compatibility with learning management systems.

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[6] According to Adam Shaw, "scaffolding is an instructional method that progressively moves students toward greater independence and understanding during the learning process. Similar to how builders require scaffolding during construction to access new heights, instructional scaffolding helps students navigate coursework and accomplish tasks they otherwise might not have been able to" (Shaw 2019, online).

Conclusion

Following global trends in online education, most HEIs in the UAE now also offer online programmes. To be competitive in the industry, institutions have shown concern about high attrition and low retention of students as well as challenges online learners are facing, but there is still a dearth of studies focusing on the challenges arising for teaching staff. Our own study explored the challenges encountered by faculty members teaching online business management courses in the UAE. By undertaking a review of e-learning literature published between 1999 and 2020 and conducting in-depth semi-structured interviews with 15 faculty members, we identified teacher-specific challenges and grouped them into five themes: (1) learners' expectations; (2) culture; (3) lack of incentives for faculty members to engage in online teaching; (4) pedagogy; and (5) technology, thereby extending the work of Anderson (2008). Understanding these identified themes will help academic institutions improve delivery of their online programmes. All the challenges encountered by faculty members in the UAE seem to be related to each other and need to be addressed coherently for a seamless adoption and delivery of online education.

Future research

This study explored and examined the challenges encountered by faculty members who delivered business management courses online. There are some important caveats to the study that deserve to be mentioned. Its findings are limited since the study primarily focused only on teacher-specific challenges in online education and did not explore challenges related to students or institutions in online education. Besides, it would be of interest to consider reviews of faculty members from other academic disciplines apart from business management. Furthermore, our work focused on the UAE and therefore the conclusions drawn cannot represent the situation in other countries. Future research might undertake a quantitative study with a larger sample to generalise the results. Our current findings may lead to future research in developing strategies to overcome the challenges encountered by faculty members that are student-specific, content-specific, and dependent on institutional support. The results from the present study will help key stakeholders better understand the challenges encountered by faculty members in the e-learning environment and come up with strategies that act as catalysts in improving the learning and delivery in online education.

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Tausif Mulla is a senior lecturer & course leader at Westford University College in the UAE. He has a postgraduate diploma in business management and a master's degree in business administration. Currently, he is pursuing his PhD from Aligarh Muslim University, India. He teaches general management to undergraduates and master's level students. His areas of research include consumer behaviour towards entertainment and improving quality of teaching and learning in online education.

Sufia Munir is Assistant Dean at Westford University College in the UAE. She has a bachelor's degree in fashion and apparel design and a master's degree in business administration. Currently, she is pursuing her PhD from the University of Salford, UK. She teaches general management and fashion design courses. Her areas of research interest are "Sustainability in Business" and "Teaching and Learning in the Virtual World".

Vivek Mohan is the Dean at Exceed College Westford Education Group, he oversees student and academic affairs for executive education and has several years of experience in leading, designing and delivering programmes in the higher education sector. His research interests include Expatriate performance, Transmedia storytelling, Sustainability, and online learning and teaching in higher education.