

# Adaptive Teaching Strategies in the Post-Pandemic Era: Navigating the Shift to a ‘New Normal’ in Language and Linguistics Education With Case Studies From Oman and the UAE

Mohamed Jlassi\*

Center for Advanced Research in Experimental and Applied Linguistics, University of McMaster, Hamilton, Canada

Bilal Zakarneh

Department of Languages and Culture, College of Humanities and Sciences, Humanities and Social Sciences Research Center, Ajman University, Ajman, UAE

**Abstract**—The pre-pandemic era saw the integration of educational technology into traditional classroom pedagogy as a supplementary tool, enhancing hands-on and interactive teaching approaches. While there was a general acknowledgment that information technology was transforming learning, its centrality in education was not fully realized until the COVID-19 pandemic. During the pandemic, the physical presence of learners was replaced by virtual engagement, compelling both educators and students to adapt to a new learning paradigm. This shift necessitated the development of adaptive teaching strategies to preserve the interactive, collaborative and inclusive nature of conventional classrooms while elevating the role of educational technology from a peripheral to a central position. In the post-pandemic world, educational practices are divided between those who favor a return to traditional, human-centered models and those who advocate AI-integrated, technology-driven learning. This study examines the teaching of language and linguistics before, during, and after the pandemic, focusing on approaches in Oman and the United Arab Emirates (UAE).

**Index Terms**—pre-pandemic e-learning, techno-pedagogy classroom, post-pandemic new normal, pedagogization of technology, digitalization of education

## I. INTRODUCTION

For decades, the interplay between technology and education has been central to academic discourse, especially with the emergence of active learning—a key philosophy of 21<sup>st</sup>-century education that promotes student engagement through collaboration, increasingly supported by technology. Yet, this relationship has been inconsistent, marked by alternating enthusiasm and resistance. Prior to COVID-19, educational institutions were gradually adopting technological tools—such as online platforms, digital textbooks, and classroom management systems—largely driven by market demand (Selwyn, 2021). However, many educators remained skeptical, resisting what they saw as the intrusion of technology into traditional pedagogy (Cuban, 2001). The pandemic dramatically altered this trajectory. With the sudden shift to remote learning, technology became indispensable. Educators and institutions scrambled to adapt to digital teaching environments, relying on platforms like Zoom, Microsoft Teams, and Google Classroom to maintain continuity (Dhawan, 2020). In Oman and the UAE, the transition to emergency remote teaching occurred rapidly and with limited preparation (Al-Mahasees et al., 2021).

As the world entered the post-pandemic era, educational technology evolved further. Spurred by growing demand, companies introduced advanced solutions such as AI-powered platforms and adaptive learning systems tailored to digital-native learners. Coursera and Khan Academy, for example, expanded their offerings with more personalized and interactive content (Holmes et al., 2019). In Oman and the UAE, higher education institutions adopted hybrid models, blending in-person instruction with digital tools, although some educators continued to resist these changes (Al-Maiah et al., 2020). This rapid transformation has inspired both innovation and pushback, exposing ongoing tensions between human-centered education and machine-driven approaches. The debate surrounding the pre-pandemic ‘normal,’ the pandemic-induced ‘new normal,’ and the emerging post-pandemic hybrid model is particularly visible in Oman and the UAE. Institutions in both countries continue to navigate the balance between technological integration and traditional pedagogies, while also responding to faculty and student preferences for face-to-face learning.

This study examines these evolving dynamics, focusing on how the relationship between technology and education has shifted in Oman and the UAE. It investigates the following research questions: What adaptation strategies were implemented during the COVID-19 pandemic in Oman and the UAE compared to global higher education practices?

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\* Corresponding Author.

How effective were these strategies in supporting meaningful learning and shaping the ‘new normal’? And to what extent has this ‘new normal’ been sustained in the post-pandemic era?

## II. THE PRE-PANDEMIC ‘NORMAL’: TECHNOLOGY-INTEGRATED LANGUAGE AND LINGUISTICS TEACHING AND LEARNING

Active learning, characterized by student engagement through hands-on activities and critical thinking, has been significantly shaped by technology integration. This led to various instructional models—Technology-Enabled Active Learning (TEAL), Technology-Assisted Language Learning (TALL), Technology-Enhanced Language Learning (TELL), and Computer-Assisted Language Learning (CALL)—alongside Learning Management Systems (LMS). These methods emphasize learner autonomy and communication-rich environments, aligning with long-standing student-centered educational theories (Vygotsky, 1978). However, two contentious issues emerged. First, the integration of technology was often driven more by industrial and political agendas than by pedagogical need, making it a reactive rather than proactive tool (Selwyn, 2014, 2021). Second, educators and students often resisted technological integration, viewing it as disruptive rather than beneficial (Warschauer, 2003). Despite clear benefits in language education, pre-pandemic adoption frequently lagged behind technological innovation. Cuban (2001, p. 10) noted that “technological enthusiasm” often outpaced actual pedagogical necessity, creating a mismatch between available tools and learner needs (see also Cuban, 2016). In Oman and the UAE, this misalignment sparked debate: was technology genuinely enhancing education or merely following global trends?

This study draws on case studies from Oman and the UAE. In Oman, the focus is on the Colleges of Applied Sciences (CAS), which offered an intensive English program for foundation-year students preparing for fields like IT and Communication. Since its inception in 2006, CAS aligned with national goals to modernize education, adopting multimedia tools, computers, and LMS platforms like Blackboard (Al-Ani, 2013; Al-Mahrooqi & Troudi, 2014). Yet, from 2006 to 2014, use of such technology was minimal. Teacher-centered practices persisted, with only sporadic instances of student-centered or task-based learning. Aside from occasional video projections or CD-based listening exercises, e-learning tools were underutilized. At Sohar University, Oman’s first private university, traditional lectures dominated until 2019, despite adoption of Moodle and other digital tools. Both instructors and students preferred conventional methods, resisting active learning despite its promotion in policy discourse (Al-Senaïdi et al., 2009). Core linguistics subjects—syntax, phonetics, pragmatics—saw limited digital integration, even when technological tools could have enriched instruction, such as tree-diagram software or audiovisual aids for speech act theory. This revealed a dual reality: institutions were well-equipped with technology, yet pedagogical practices remained conventional. Barriers included insufficient training, low digital literacy, and resistance to change (Al-Ani, 2013; Al-Saadi, 2017; Al-Senaïdi et al., 2009). Saleem and Al-Suqri (2015) attributed resistance to skepticism over technology’s educational value. Al-Mahrooqi and Troudi (2014) emphasized the need for institutional support and professional development to promote effective integration.

In the UAE, perceptions of educational technology varied. Some faculty and students saw online platforms as inferior to in-person teaching, which was perceived as more effective (Shomotova & Karabchuk, 2023; Chaudhry et al., 2021). El-Soussi (2022) found that educators often treated technology as a delivery tool rather than a pedagogical asset. Students, too, lacked confidence in online learning and struggled without consistent tutor support. Although MOOCs and blended formats were available, enrollment remained low, and technology use was inconsistent across institutions. Even before the pandemic, Emirati universities had implemented LMS and digital platforms to support hybrid and online models (Leo et al., 2021; Abdallah & Al-Riyami, 2022). However, these were often used for administrative convenience—sharing lecture slides or managing grades—rather than to enhance engagement or encourage deeper learning (Chaudhry et al., 2021). Many instructors rarely designed interactive online activities that leveraged the full potential of digital platforms (Shomotova & Karabchuk, 2023).

This gap between the rhetoric of innovation and the reality of limited use resulted in missed opportunities for flexibility, interactivity, and personalized learning. As a result, one of the core pillars of active learning—technology—was underutilized. This prevailing reluctance to embrace tech-driven strategies was fundamentally disrupted by the COVID-19 pandemic, which forced a reconfiguration of the education-technology dynamic in Oman and the UAE.

## III. THE OUTBREAK OF THE PANDEMIC AND THE RISE OF THE ‘NEW-NORMAL’

The outbreak of COVID-19 prompted global health protocols that disrupted formal education and triggered an urgent shift toward adaptive, technology-supported strategies (Zhu & Liu, 2020; Davis & Phillips, 2021). Institutions rapidly adopted methods to address the loss of in-person learning, including flipped classrooms, experiential learning, and collaborative projects, all aimed at maintaining active learning despite the crisis. This shift placed significant demands on technology, with some institutions better prepared due to pre-existing e-learning infrastructure. Others, despite earlier claims of integration, struggled with the transition. Virtual classrooms relied heavily on platforms like Blackboard, Moodle, and Canvas, alongside collaborative tools such as Zoom, Google Workspace, Microsoft Teams, and Coursera (Narayanan & Musthafa, 2023). These tools supported online lectures, forums, quizzes, AR applications, e-portfolios, and educational games like Kahoot and Duolingo. They facilitated interactivity and learner autonomy in the absence of face-to-face engagement.

The shift to online learning demanded curriculum redesign, updated learning outcomes, and new assessment strategies (Bao, 2021). Technology helped foster inclusivity and mimic in-person engagement (Sun & Chen, 2016), enabling students to regain autonomy and collaborate confidently in virtual settings. Online assessments also helped maintain fairness and integrity. More broadly, the crisis prompted a new culture of adaptability in education and an increased emphasis on soft skills and lifelong learning. Nonetheless, significant challenges emerged. Many institutions, unprepared for a full transition to online delivery, revealed gaps in digital readiness (Elers, 2020). Institutions that had resisted e-learning before the pandemic found adaptation difficult. Zipin (2020) observed that online education was still perceived by many as inferior to traditional methods. Restructuring courses, training teachers, and addressing students' limited access to devices and stable internet proved especially difficult. Student engagement also declined in courses reliant on interaction, such as communication skills (Coman et al., 2020; Some-Guiebre, 2020). Teachers faced difficulties gauging understanding due to limited emotional and verbal cues (Aminah et al., 2021), underscoring the importance of embodiment in learning. A shift toward "techno-emotive" pedagogy is thus necessary for systems continuing online instruction (Narayanan & Musthafa, 2023).

Our case studies largely reflect the mixed outcomes seen worldwide regarding the adaptive strategies employed during the pandemic. In Oman, most higher education institutions responded swiftly to the shift to distance learning, relying heavily on basic LMS such as Moodle, Microsoft Teams, and video conferencing tools. However, some institutions were slower to adapt and experienced confusion. One case that warrants special attention is that of Sohar University. The university's response to the country's safety protocols was initially perplexing. On the one hand, it revealed the absence of mitigation plans for extraordinary emergency situations, a common issue across many institutions. On the other hand, it highlighted a lack of clear direction regarding e-learning. Although the university had incorporated e-learning prior to the pandemic, there was clear reluctance to fully embrace it. At first, the administration allowed faculties to independently choose the platforms and learning methods they deemed suitable for their programs—such as IT, Business, Engineering, and Language Studies—prompting staff to quickly restructure their courses. However, confusion arose when the management unexpectedly decided to cancel all classes, both in-person and online and brought forward the summer holidays. They believed that the pandemic would subside by summer 2020, allowing campus-based learning to resume. Only two weeks later, the administration reversed this decision, realizing its imprudence, and introduced a new online learning model.

Faculties were then instructed to redesign their courses around four main tasks, with each task consisting of key materials, supplementary materials and practice exercises to be uploaded onto the university's LMS. Interaction was limited to voice-overs embedded in the key materials or discussions via Moodle's forums. Despite the initial confusion, the university managed to restructure its courses in a short period, aligning them with program objectives and learning outcomes. For instance, in linguistics, courses were adjusted to fit the task-based structure and students were provided with ample supplementary materials to explore various linguistic themes. The pre-pandemic use of tree-diagram software for syntax practice was expanded during this period, allowing students to continue tree-drawing exercises. Moodle's testing features also proved useful for administering online assessments. However, several significant limitations became apparent. The rushed implementation failed to clearly define the nature of 'task', which resembled modules more than actual tasks. These tasks did not incorporate interaction, a critical component of a task-based approach to learning, which would have promoted learner autonomy and active learning. In this sense, the system was not fully successful. Another major obstacle was the lack of online interaction through live lectures. Cultural barriers, particularly the reluctance of female students to turn on their cameras during classes, further hindered engagement. The absence of visual cues, such as body language and facial expressions, made it difficult for lecturers to gauge student understanding and participation. Moreover, the sensory and cognitive experiences—critical components of learning, such as thinking, reasoning, and comprehension—were significantly diminished in this online format. There was no assurance of the integration between mind and body that is crucial for deep learning, which posed a major challenge for this form of distance education. The second term of implementing distance learning proved to be more efficient than its initial phase. With more time available, educators were able to incorporate active learning strategies into their programs, creating greater opportunities for staff-student interaction by adopting a blended learning approach. This model, grounded in flipped active learning, utilized a modular curriculum supported by asynchronous lectures and additional interaction mediums. As such, this approach allowed programs such as linguistics to flexibly redesign their courses, providing more detailed explanations of concepts and leveraging interactive functions within Moodle. The aim was to achieve a balanced integration of cognitive and physical aspects of learning, fostering a holistic learning experience that encompassed both body and mind. Faculty received extensive training to use technology in unprecedented ways, despite the risks of organizing in-person training sessions, which violated health protocols. Apart from the cultural barriers that continued to limit direct interaction, the blended learning model was relatively successful and was maintained throughout the entire 2020/2021 academic year. This sustainable integration of technology into education suggested that institutions like Sohar University were on the brink of transitioning into a 'new normal,' where technology would become an integral part of education, in contrast to its limited role before the pandemic. However, the university's hasty decision to resume in-person learning for the 2021-2022 academic year, while the rest of the world continued to observe strict health protocols and capitalize on the benefits of online learning, raised concerns. Not only did this decision expose all stakeholders to potential health risks, but it also called into question the university's commitment to distance learning. This abrupt shift back to in-person education

undermined the apparent progress made with technology-based adaptive learning strategies and cast doubt on their sustainability, a topic we will explore further in Section 4.

In the UAE, after an initial phase of Emergency Remote Teaching (ERT), educational institutions implemented strict safety measures and student-focused provisions. This led to the adoption of certain online teaching models, that also heralded for their continuous use even after the post-pandemic outbreak (El-Sakran et al., 2022). As a result, “hybrid” teaching model is adopted, where some students attended classes in person while others participated online simultaneously. Implemented by Knowledge and Human Development Authority (KHDA), the hybrid model retained several characteristics from the earlier ERT period. It allowed teachers to support students who could not attend due to health issues or travel restrictions to continue their education remotely (Rahman et al., 2022). Pre-COVID iterations of the hybrid learning model which had already highlighted some advantages, such as accommodating a growing had presented certain challenges. Teachers often perceived online students as less engaged, while those same students felt that instructors favored in-person peers. This disconnect also extended to feelings of reduced belonging among online learners, while in-person students felt disadvantaged by the time spent on resolving technical issues related to the online component (Jeljeli et al., 2022). The effectiveness of hybrid teaching during the pandemic was not only dependent on the use of e-learning tools but also on how and when these tools were implemented. Educators’ confidence in using these technologies played a critical role in shaping overall teaching and learning experience. This reflects the broader challenges and opportunities of adopting online teaching in the UAE during the COVID-19 crisis, as institutions balanced maintaining educational access with the realities of a mixed learning environment (Al-Hamad et al., 2021).

Globally, the pandemic has tested the resilience of academia in coping with emergency circumstances. Some institutions, which had long placed technology at the core of their educational systems, managed to transition smoothly to non-conventional setups. In contrast, others, which had struggled with e-learning prior to the pandemic, faced significant challenges in achieving a successful transition. For the former group, overcoming pandemic restrictions prompted deeper reflection and careful analysis of the ‘new normal’. These institutions began exploring ways to safeguard education during future unpredictable crises, developing new pedagogical models designed to withstand such challenges. This process involved various stakeholders engaging in research to identify optimal strategies for sustainable online learning. The success of these institutions in framing the ‘new normal’ for education, which in some cases, as noted by Aziz Thabit et al. (2022), resembled on-campus learning, motivated stakeholders to continue employing these adaptive strategies in a post-pandemic world. The 2021 Online Education Trends Report (OETR) similarly found that the positive experience with online learning during the pandemic convinced many stakeholders to further embrace it, while adopting more innovative distance learning methods and tools.<sup>1</sup> This perspective is grounded in a belief in distance learning’s potential, particularly its ability to support the development of what Aziz Thabit et al. (2022, p. 60) describe as ‘21<sup>st</sup>-century skills’, such as IT literacy, autonomous learning, lifelong learning and sustainable learning. For institutions in the second group, the pandemic revealed significant shortcomings. Their confusion during the initial outbreak, slow shift to distance learning, rushed return to in-person classes despite ongoing health risks and the limited success of their distance learning efforts highlighted the peripheral role of technology in these systems. In both groups, however, the key to overcoming future pandemics or crises lies in how technology is perceived. Is it viewed as a tool to meet the genuine needs of learners, or as a superficial solution serving unrelated agendas instead of matching learners’ needs?

In section four, we will demonstrate how the first perception enabled some institutions to navigate the pandemic smoothly and is likely to sustain their efforts in enhancing the ‘new normal’ post-pandemic. Conversely, the second perception has left institutions like those in our case studies, especially in Oman, resistant to fully integrating technology into education in a meaningful and effective way.

#### IV. THE POST-PANDEMIC ‘NEW NORMAL’ REALITY

In the wake of the pandemic, it became evident that the educational landscape had undergone a profound transformation due to various adaptive learning strategies implemented to bridge the educational gaps caused by lockdowns and restrictions. The surge in online learning as a new reality, demonstrating both efficiency and validity, led to the widespread adoption of hybrid and blended learning models, where in-person instruction coexists with distance learning. This innovation has reshaped education and academia, triggering what Tian (2023, p. 262) refers to as ‘multidimensional transformations’ in key educational aspects, including educational philosophies, concepts, models, technology, curricula, resources and learner profiles. Within this redefined landscape, the relationships among members of the educational community—learners, teachers and administrators—have been reevaluated, reconstructing the entire educational ecosystem. This section will explore the main manifestations of the ‘new normal’ that has extended into the post-pandemic era, solidifying itself as the new educational reality. It will focus on the novel dynamics between learning and technology, the reshaped approaches to teaching, and the ‘new normal’ curriculum. Additionally, this paper will examine these paradigm shifts in the educational contexts of Oman and the UAE, concluding with an analysis of the sustainability and future perspectives of the educational ‘new normal’.

<sup>1</sup>The Online Education Trends Report (OETR), developed by ‘BestColleges’, which is an educational resource offering guidance on colleges, degrees, and trends in higher education. The 2021 report explores the state of online education by gathering insights from students and administrators. Key findings include the impact of COVID-19 on education, with nearly half of remote learners planning to continue online studies.

The emergent need for technology during the pandemic marked a significant shift from pre-pandemic trends, as technology was now tailored to meet the specific needs of learners and adapt to the changing circumstances of education. This alignment with the evolving demands of academia facilitated a smoother and more efficient integration of technology into education, in contrast to the pre-pandemic era, where technological adoption often exceeded the genuine needs of learners.

The 'new normal' in post-pandemic times has built upon the technological innovations introduced during the pandemic to ensure the continuity of online learning. Since then, there has been a widespread adoption of various devices and the development of specialized learning platforms to address the diverse and increasingly specialized needs of learners. Technology has also had to adapt to the return of in-person learning, resulting in a hybrid or blended learning model, where technology plays a central role in content delivery—whether in synchronous or asynchronous formats. As a result, new technologies have become ubiquitous in online learning environments. These include multifunctional learning platforms, big data, cloud computing, facial recognition, gamification, game-based learning, AR, Virtual Reality (VR) and AI-driven teaching technologies. The application of AI has been particularly notable since the onset of the pandemic, with AI and big data being incorporated into several educational fields such as language learning, quality education, experiential learning and vocational training. The integration of AI-driven learning has transformed platforms to include human-machine interactive learning capabilities, moving toward what Tian (2023, p. 265) refers to as the 'Parallel Education' paradigm. This increasingly prevalent technology has been responding to the ever-evolving needs of learners within the new post-pandemic educational landscape. Rapanta et al. (2021) describe this 'new normal' in higher education as a shift toward the digitalization of education and the pedagogization of technology, where technology is tailored to serve the genuine needs of learners. Similarly, Tian (2023) notes that the post-pandemic embrace of technology in blended learning is characterized by educational informatization—the integration and widespread use of IT in education—with a heightened focus on digital transformation.

The personalization of learning and teaching is another prominent feature of the post-pandemic 'new normal' in education. During the pandemic, the focus shifted toward tailoring learning through technology to meet the specific needs of learners, compensating for the lack of physical presence by aligning educational methods with the learner's cognitive processes, body and psyche. Innovative technologies enabled this specialization, as noted by Tian (2023, p. 262), by catering "to the unique learning needs of each individual, enabling education that is accessible, continuous and personalized through leveraging advanced technologies like the Internet, big data, cloud computing, and artificial intelligence." The blended classroom model, particularly through flipped learning, provided learners with greater autonomy. Multifunctional LMS, integrated with AI, supported the customization of learning to meet diverse needs within an equitable, diverse environment. Post-pandemic education has consequently reimagined the 'new normal' educational space, where any environment—physical or virtual—can become a potential learning space. This transformation was driven by adaptive learning strategies that emerged during the pandemic to better personalize learning for online students. AR and VR, as discussed by Freina and Ott (2015) and Yamani (2021), have successfully simulated real-world learning environments, thus enhancing personalization, as emphasized by Tian's Parallel Education paradigm. This approach personalizes learning and promotes accurate and authentic educational experiences. In this context, personalized and user-profile-based learning has continued to evolve, increasingly centering on the learner. This progression is moving toward smarter, more immersive, inclusive, precise and advanced learning and teaching methods. The 'new normal' learning environment operates with a high degree of flexibility in terms of instruction, design and content delivery. This flexibility, as Sato et al. (2024, p. 6) argue, "allows educators to accommodate diverse learner needs, offer alternative learning pathways and adapt to unforeseen circumstances." Such adaptability fosters better student engagement, retention, understanding and promotes lifelong learning (Sato et al., 2024).

It is evident that the pandemic, as Sato et al. (2024, p. 2) observe, 'fast-tracked' the digitalization of education, accelerating the transformation of the pre-pandemic educational ecosystem into a new one. This shift has sparked a redefinition of schools, students, curricula and educational methods. A key feature of this new ecosystem is the seamless integration of in-person and virtual learning through online platforms. Restructuring the educational landscape in this way has fostered a new culture of multi-level interactions among stakeholders, bringing academia closer to the outside world. This complex, interconnected network of stakeholders in the post-pandemic educational ecosystem—students, educators, institutions and technology providers—collaborates to support and enhance learning. Like a natural ecosystem, this emerging educational model consists of various components that interact and influence each other, contributing to the overall health and effectiveness of the learning experience. This redefined network represents another visible manifestation of the post-pandemic 'new normal', which will be further outlined below.

The evolving educational ecosystem has transformed the key components of education and their interrelations, specifically the learner, the teacher, learning and teaching. The comprehensive integration of technology in education necessitated a departure from the traditional curriculum, which was primarily based on knowledge content and campus-based delivery. Instead, the curriculum must now cater to students' reasoning abilities, as well as their emotional and physical responses to content, while also leveraging their growing digital skillset (Kallio & Halverson, 2020). The post-pandemic curriculum must consider the blended learning model, where learning outcomes focus on developing skills for a modern, globalized and digitalized world that demands creative and globally competent students. In line with this, Darby (2020) argues that the post-COVID-19 curriculum should pave the way for lifelong learning by offering learners access

to diverse domains of knowledge, enabling them to make informed choices. This unprecedented reform requires curricula, teaching and learning methods to adapt in an era of explosive growth in online education that parallels traditional campus-based education. It illustrates a rapid transition from conventional paradigms to future-oriented ones, marking a shift from the information age to the intelligent age. In this new era, knowledge is increasingly ubiquitous, with educational materials and resources rapidly aggregating.

The profiles of learners and teachers in the post-pandemic educational landscape differ significantly from those of the pre-pandemic era. Online learning during the pandemic fostered a personalized educational experience characterized by Tian (2023, p. 264) as “education for all, anytime, anywhere.” This environment emphasizes student-initiated inquiries rather than rote memorization, enabling students to tap into their creative skills, thrive alongside intelligent machines, tackle unknown challenges and seek solutions to problems they encounter. It also facilitates cross-cultural learning experiences, as online platforms allow for exploration across time and space. While learner-centered approaches can be traced back to the pre-pandemic era of active learning, the proliferation of online learning in the intelligent age has led to a growing emphasis on exploratory, inquiry-based and self-directed learning. The post-pandemic learner is now seen as resourceful, in contrast to the traditional role of teachers, as educational responsibilities have shifted. This transition places greater weight and responsibility on the learner within an autonomous learning framework (St. Amour, 2020). The post-pandemic learner is characterized as autonomous, intellectually engaged, emotionally invested and socially included. On the other hand, teachers have witnessed a transformed educational landscape where pedagogical philosophies have significantly evolved in the aftermath of the pandemic. They have leveraged the online teaching skills acquired during remote instruction, making the transition back to in-person learning—supported by simultaneous online options—seem seamless as they navigate the shift from online to blended learning. In addition to ongoing professional development to stay abreast of evolving technologies, teachers are redesigning their syllabi, revising course objectives, and adjusting their teaching methods. They are also prioritizing the emotional and social well-being of their students to meet the requirements of the post-pandemic ‘new normal’ curriculum and the new learner profile.

Reflecting on the post-pandemic educational landscape in Oman and the UAE, our case studies suggest a notable tendency in Oman in particular to resist the ‘new normal’ educational ecosystem, compared to the UAE where there still arise few challenges for a comprehensive endorsing of the ‘new normal’. This resistance is deeply rooted in the pre-pandemic skepticism towards e-learning, as outlined in Sections 2 and 3, which discuss the reluctance to fully embrace technology in education despite the encouraging integration of online learning during the pandemic.

#### *A. The Case of Oman*

The educational setting in Oman has faced pressures rooted in nostalgia for pre-pandemic in-person learning. This sentiment justifies the swift resumption of campus-based learning, often disregarding the necessity to adapt to the emerging challenges of hybrid education. The primary focus has been on returning to ‘normal’, or in-person learning, which often results in a denial—whether intentional or not—of the rise of the ‘new normal’ in education. At institutions such as Sohar University in Oman, the conception of online learning has been viewed as ancillary to traditional campus learning. This perspective highlights a lack of reflective evaluation regarding the use of technology during the pandemic and its potential integration to enhance blended learning. Consequently, the post-pandemic educational ecosystem at Sohar University reflects a complex interplay between the ‘normal’ and the ‘new normal’.

Various faculties within the university have maintained the flipped learning model that emerged during the pandemic. This model relies on uploading course materials to the university’s LMS prior to online asynchronous delivery and adheres to the same curriculum that was designed under emergency conditions. For example, in linguistics, the post-pandemic program preserved the pandemic-era design, with the only significant change being the shift to synchronous course delivery. This approach did not explore diverse resources to provide learners with a rich array of critical and varied learning materials, which is essential for lifelong learning. Unfortunately, there was little evidence of flipped learning, as classroom delivery primarily remained teacher-centered, lacking the student-centered approaches that prioritize active learning strategies like discussions and group activities. Online delivery was predominantly reserved for emergency situations, such as making up missed classes or alleviating the demands of large in-person groups. This approach to the ‘new normal’ has significant implications for current and future higher education in Oman. First, learning does not capitalize on the innovations brought about by the pandemic’s ‘new normal’, particularly the diverse integration of technology that can support meaningful, inclusive, and equitable learning. Instead, it misleadingly equates online delivery with in-person learning, marginalizing remote education and missing its potential benefits. In this context, the learner profile cannot, contrary to expectations, be characterized as autonomous, creative, critical, or resourceful. Second, while the teacher has transitioned to a more desirable teaching environment—albeit still somewhat teacher-centered—the reduction in scope during the pandemic has inhibited opportunities for personalized learning that are much sought after in the ‘new normal’. Third, technology use has been largely confined to the LMS and its basic functions, along with limited use of MS Teams, neglecting the innovative and widely adopted smart technologies embraced elsewhere in the world. This indicates that the educational ecosystem in Oman continues to rely on pre-pandemic, inefficient uses of e-learning, thereby denying the global transition from the information age to the intelligent age, where the digitalization of education and the application of AI-driven technologies are core elements.

Replicating the pre-pandemic status quo in a rapidly changing post-pandemic ‘new normal’ supports Al-Senaidi’s (2009) assertion that there is resistance in Oman to change concerning the integration of technology in education. Furthermore,

governance is invited to fully embrace novel technologies in learning, as emphasized by Al-Mahrooqi and Troudi (2009), who highlight the importance of institutional support in this regard. The higher education sector in Oman has a valuable opportunity to align with the ongoing metamorphosis of the global educational ecosystem. However, this requires urgent evaluations to capture the various transitions that education has undergone from pre-pandemic to post-pandemic phases. Such evaluations should foster a favorable environment for sustainable lifelong learning by re-centering technology's role in education, restructuring curricula, upgrading delivery methods, expanding learning spaces, and—most importantly—shaping a 21<sup>st</sup>-century learner profile that accommodates cognitive, physical, emotional and sociocultural aspects, thereby embodying the ideal realization of holistic learning. Undeniably, Oman possesses the necessary logistics and disposition to promptly endorse the exigencies of the 'new normal' and implement urgent educational reforms in alignment with the global educational landscape.

### *B. The Case of the UAE*

Similarly, the education system in the UAE has undergone significant changes, many of which have become a permanent fixture in the learning environment (Murshidi et al., 2023). One of the most notable shifts is the rise in the popularity of online teaching and learning approaches (Ahmed et al., 2023). As mentioned earlier, these approaches initially met with uncertainties, teachers and students started recognizing the benefits of distance and online learning as they experienced efficiency and convenience during the pandemic. Consequently, today, many institutions embrace online education as a constant part of their everyday proceeding, especially the higher education institutions. In addition, many online universities have started working in the UAE, offering diverse programs in the country (Zhu et al., 2023). UNESCO IITE and global partners developed resources for educators, students, and parents, enduring that learning and teaching may persist even in any unprecedented crisis in future.<sup>2</sup> For example, Hamdan Bin Mohammed Smart University (HBMSU) launched training programs to equip teachers with the skills required for online instruction, which proved valuable during and after the COVID-19 outbreak (Al-Rashaida & Massouti, 2024). The pandemic also spurred great acceptance of digital technology in education. Although the transition to online teaching and learning was challenging, the convenience, affordability, and accessibility it provided encouraged stakeholders to embrace it fully. LMS continue to play a key role and have become an essential part of educational journey even after the pandemic (El-Sakran et al., 2022). These LMS platforms empower educational institutions by providing digital space for students and teachers to access course materials, submit assignments and engage in online learning from anywhere in the world. As these changes were originally driven by pandemic, they are now a permanent part of educational landscape in the UAE (Imran et al., 2023).

In summary, the persistence of the pandemic's 'new normal' into the post-pandemic era signifies a substantial shift in the philosophy and paradigms of the global educational ecosystem. This transition has recalibrated the relationship between technology and learning, moving away from the pre-pandemic dominance of technology in education to a more balanced approach in which technology is tailored to the learner's profile and vice versa. Consequently, the new correlation between education and technology emphasizes the digitalization of education and the pedagogization of technology. As a result, an emerging dynamic and inclusive educational ecosystem is integrating intelligent technologies to enhance 21<sup>st</sup>-century hybrid learning, focusing on meaningful learning experiences where knowledge and understanding are grounded in the learner's physical experiences, emotional engagement and cognitive processes—all made possible through personalized learning. For Oman, unlike the UAE, to address the demands of the 'new normal', it is crucial to conduct an urgent assessment of the changing paradigms since the pre-pandemic phase. Re-centering technology in education would undoubtedly assist the country in aligning with the global educational landscape, especially given Oman's modern educational infrastructure. The UAE would, despite the challenges, capitalize on its global partnerships with, among many, UNESCO and Microsoft to drive the adoption of technology and AI in education, which aligns with country's broader strategic goals of becoming a global hub for innovation, smart learning and AI.

## V. CONCLUSION

The COVID-19 pandemic served as a crucial litmus test for the integration of technology in education, exposing the gaps between rhetoric and practice. In both Oman and the UAE, it revealed that while e-learning was discussed pre-pandemic, it was not fully embraced as a core element of active learning. The global shift towards AI-driven technologies in education has accelerated the adoption of digital tools, but progress varies across countries. For Oman and the UAE, the challenge now lies in leveraging the full potential of educational technology while navigating sociocultural sensitivities and logistical barriers. Moving forward, a balanced approach that blends traditional teaching with innovative, technology-driven methods will be essential—not only to meet the diverse needs of learners but also to prepare them for a future where digital literacy and adaptability are critical in the 21<sup>st</sup>-century learner profile.

<sup>2</sup> UNESCO IITE stands for the UNESCO Institute for Information Technologies in Education. It is a specialized institute under the United Nations Educational, Scientific and Cultural Organization (UNESCO) focused on promoting the use of information and communication technologies (ICTs) in education.

## REFERENCES

- [1] Abdallah, A. K., & Alriyami, R. (2022). Changes in the education landscape caused by COVID-19: Opportunities and challenges from UAE perspective. *World Journal on Educational Technology: Current Issues*, 14(3), 544–559. <https://doi.org/10.18844/wjet.v14i3.7193>
- [2] Ahmed, V., Anane, C., Alzaatreh, A., & Saboor, S. (2023). Faculty perception of online education: Considerations for the post-pandemic world. *Frontiers in Education*, 8, Article 1258980. <https://doi.org/10.3389/feduc.2023.1258980>
- [3] Al-Ani, W. T. (2013). Blended learning approach using Moodle and student learning experiences in Oman. *Journal of Technology and Science Education*, 3(2), 92–102.
- [4] Al-Hamad, M. Q., Mbaidin, H. O., Alhamad, A. Q. M., Alshurideh, M. T., Kurdi, B. H. Al, & Al-Hamad, N. Q. (2021). Investigating students' behavioral intention to use mobile learning in higher education in UAE during Coronavirus-19 pandemic. *International Journal of Data and Network Science*, 5(3), 321–330. <https://doi.org/10.5267/j.ijdns.2021.6.001>
- [5] Al-Mahasees, Z., Mohsen, K., & Amin, M. O. (2021). Faculty and students' perceptions of online learning during COVID-19. *Frontiers in Education*, 6, Article 638470. <https://doi.org/10.3389/feduc.2021.638470>
- [6] Al-Mahrooqi, R., & Troudi, S. (2014). Using technology in foreign language teaching in Oman: Prospects and challenges. In *Using technology in foreign language teaching* (pp. 111–130). Cambridge Scholars Publishing.
- [7] Al-Maiah, M. A., Al-Khoury, A. M., & Ameen, A. (2020). Exploring the critical challenges and factors influencing the e-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, 25, 5261–5280. <https://doi.org/10.1007/s10663-020-10375-1>
- [8] Al-Rashaida, M., & Massouti, A. (2024). Assessing the efficacy of online teacher training programs in preparing pre-service teachers to support students with special educational needs in mainstream classrooms in the UAE: A case study. *Journal of Research in Special Educational Needs*, 24(1), 188–200. <https://doi.org/10.1111/1471-3802.12624>
- [9] Aminah, F., Nurwahida, Y., & Nurmawati, N. (2021). Technology-based teaching strategies implemented by English teachers before and during COVID-19 in EFL context. *Elstic-IJI*(3), 195–201.
- [10] Al-Saadi, K. A. (2017). *Professional development and technology integration in Omani higher education* [Unpublished doctoral dissertation], University of Sheffield.
- [11] Al-Senaidi, S., Lin, L., & Poirot, J. (2009). Barriers to adopting technology for teaching and learning in Oman. *Computers & Education*, 53(3), 575–590. <https://doi.org/10.1016/j.compedu.2009.02.003>
- [12] Aziz Thabit, S., Al-Khatib, H., Abdel Hafeez, Gh. & Kaldun, S. (2022). Transcending lockdown: Teaching and learning EFL during Covid-19 Crisis. *Journal of English Language Teaching and Applied Linguistics (JELTAL)*, 4(1), 44–63.
- [13] Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
- [14] Chaudhry, I. S., Paquibut, R., Islam, A. R., & Chabchoub, H. (2021). Testing the success of real-time online delivery channel adopted by higher education institutions in the United Arab Emirates during the COVID-19 pandemic. *International Journal of Educational Technology in Higher Education*, 18(1), Article 48. <https://doi.org/10.1186/s41239-021-00283-w>
- [15] Coman, C., Tîru, L., Mesesan-Schmitz, L., Stanciu, C., & Bularca, M. (2020). Online teaching and learning in higher education during the coronavirus pandemic. *Sustainability*, 12(1), 1–24. <https://doi.org/10.3390/su122410367>
- [16] Cuban, L. (2001). *Oversold and underused: Computers in the classroom*. Harvard University Press.
- [17] Cuban, L. (2016). *Teaching history then and now: A story of stability and change in schools*. Harvard Education Press.
- [18] Darby, F. (2020). Low-tech, time-saving ways to teach online during COVID-19. *Chronicle of Higher Education*, 7(6), 39–54.
- [19] Davis, S., & Phillips, L. G. (2021). Teaching during COVID 19 times – The experiences of drama and performing arts teachers and the human dimensions of learning. *NJ Drama Australia Journal*, 44(2), 66–87. <https://doi.org/10.1080/14452294.2021.194383>
- [20] Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>
- [21] Elers, S. (2020). Education institutes around the world scramble to prepare for online teaching. *Stuff on Social and Cultural Issues*, March 21. Retrieved August 29, 2024, from <https://www.stuff.co.nz/national/health/coronavirus/120400677/education-institutes-around-the-world-scramble-to-prepare-for-onlineteaching>
- [22] El-Sakran, A., Salman, R., & Alzaatreh, A. (2022). Impacts of emergency remote teaching on college students amid COVID-19 in the UAE. *International Journal of Environmental Research and Public Health*, 19(5), Article 2979. <https://doi.org/10.3390/ijerph19052979>
- [23] El-Soussi, A. (2022). The shift from face-to-face to online teaching due to COVID-19: Its impact on higher education faculty's professional identity. *International Journal of Educational Research Open*, 3, Article 100139. <https://doi.org/10.1016/j.ijedro.2022.100139>
- [24] Freina, L., & Ott, M. (2015). A literature review on immersive virtual reality in education: State of the art and perspectives. *e-learning and Software for Education*, 1, pp. 133–141. <https://doi.org/10.12753/2066-026X-15-020>
- [25] Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
- [26] Imran, R., Fatima, A., Elbayoumi Salem, I., & Allil, K. (2023). Teaching and learning delivery modes in higher education: Looking back to move forward post-COVID-19 era. *International Journal of Management Education*, 21(2), Article 100805. <https://doi.org/10.1016/j.ijme.2023.100805>
- [27] Jack, A. A. (2019). *The privileged poor: How elite colleges are failing disadvantaged students*. Harvard University Press.
- [28] Jeljeli, R., Farhi, F., Setoutah, S., & Laghouag, A. A. (2022). Microsoft teams' acceptance for the e-learning purposes during COVID-19 outbreak: A case study of UAE. *International Journal of Data and Network Science*, 6(3), 629–640. <https://doi.org/10.5267/j.ijdns.2022.4.010>
- [29] Kallio, J. M., & Halverson, R. (2020). Distributed leadership for personalized learning. *Journal of Research on Technology in Education*, 52(3), 371–390. <https://doi.org/10.1080/15391523.2020.1745799>

- [30] Leo, S., Alsharari, N. M., Abbas, J., & Alshurideh, M. T. (2021). From offline to online learning: A qualitative study of challenges and opportunities as a response to the COVID-19 pandemic in the UAE higher education context. In *Studies in Systems, Decision and Control (Vol. 334)*, pp. 203–217. Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-030-67151-8\\_12](https://doi.org/10.1007/978-3-030-67151-8_12)
- [31] Murshidi, G. Al, Daoud, S., Derei, R. Al, Alhamidi, H., Jabir, W., & Sayed, N. (2023). Parental involvement in English as foreign language learners' education: Challenges and solutions in a post-pandemic era. *International Journal of Educational Research Open*, 5, Article 100297. <https://doi.org/10.1016/j.ijedro.2023.100297>
- [32] Narayanan, S., & Musthafa, M. (2023). Techno emotive pedagogy: A strategic enabler for catalyzing sustainable learning and living in the post-pandemic educational landscape. *European Journal of Education and Pedagogy*, 4(2), 231–235.
- [33] Rahman, R. M. A., Alsalthi, N. R., Eltahir, M. E., Al-Qataweh, S. S., & Alzoubi, A. M. A. (2022). Applying online learning in higher education institutions during the COVID-19 pandemic: A field study in the United Arab Emirates (UAE). *Information Sciences Letters*, 11(3), 639–656. <https://doi.org/10.18576/isl/110301>
- [34] Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2021). Balancing technology, pedagogy and the new normal: Post-pandemic challenges for higher education. *Post digital Science and Education*, 3, 715–742.
- [35] Saleem, N. E., & Al-Suqri, M. N. (2015). Investigating faculty members' beliefs about distance education: The case of Sultan Qaboos University, Oman. *International Journal of Distance Education Technologies (IJDET)*, 13(1), 48–69. <https://doi.org/10.4018/ijdet.2015010103>
- [36] Sato, S. N., Moreno, E. C., Rubio-Zarapuz, A., Dalamitros, A. A., Yañez-Sepulveda, R., Tornero-Aguilera J. F. & Clemente-Suárez, V. J. (2023). Navigating the new normal: Adapting online and distance learning in the post-pandemic era. *Education Sciences (Educ. Sci)*, 14(19), 1–25.
- [37] Selwyn, N. (2014). *Distrusting educational technology: Critical questions for changing times*. Routledge.
- [38] Selwyn, N. (2021). *Education and technology: Key issues and debates* (2<sup>nd</sup>ed.). Bloomsbury Publishing.
- [39] Shomotova, A., & Karabchuk, T. (2023). Transition to online teaching under COVID-19: The case study of UAE university. In *Gulf Studies*, 8, 141–160. Springer. [https://doi.org/10.1007/978-981-19-7796-1\\_9](https://doi.org/10.1007/978-981-19-7796-1_9)
- [40] Some-Guiebre, E. (2020). Foreign language classroom interaction: Does it promote communicative skills? *International Journal of Educational Methodology*, 6(3), 497-505. <https://doi.org/10.12973/ijem.6.3.497>
- [41] St. Amour, M. (2020). *As times and students change, can faculty change, too? inside higher education*. April 3, Retrieved August 15, 2024, from <https://www.insidehighered.com/news/2020/04/03/faculty-face-uphill-battle-adapting-needs-todays-students>
- [42] Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *J. Inf. Technol. Educ.*, 15, 157–190.
- [43] Tian, X. (2023). Educational reform and prospects in the post-pandemic era. *Journal of Education, Humanities and Social Sciences*, 19, 262–270.
- [44] Warschauer, M. (2003). *Technology and social inclusion: Rethinking the digital divide*. Cambridge, MA: MIT Press.
- [45] Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Soubberman, Eds.). Harvard University Press.
- [46] Yamani, H.A. (2021). A conceptual framework for integrating gamification in e-learning systems based on instructional design model. *Int. J. Emerg. Technol. Learn.*, 16(14), 14–33. <https://doi.org/10.3991/ijet.v16i04.15693>
- [47] Zhu, X., & Liu, J. (2020). Education in and after COVID-19: Immediate responses and long-term visions. *Post digital Science and Education*, 2(3), 695–699. <https://doi.org/10.1007/s42438-020-001>
- [48] Zhu, Y., Geng, G., Disney, L., & Pan, Z. (2023). Changes in university students' behavioral intention to learn online throughout the COVID-19: Insights for online teaching in the post-pandemic era. *Education and Information Technologies*, 28(4), 3859–3892. <https://doi.org/10.1007/s10639-022-11320-0>
- [49] Zipin, L. (2020). Building curriculum knowledge work around community-based “problems that matter”: Let's dare to imagine. *Curriculum Perspectives*, 40(1), 111–115.



**Mohamed Jlassi** received his PhD in Theoretical Linguistics in 2013 from the University of Newcastle, England. He has taught English, Linguistics, and Education in Tunisia and Oman, and is currently a Visiting Scholar at the Centre for Advanced Research in Experimental and Applied Linguistics, McMaster University, Ontario, Canada. He has published both individual and collaborative research, including works such as Language Erosion, Multilingual Challenges, and Endangered Languages in Oman and the UAE, and Assessing Pedagogical Strategies Integrating ChatGPT in English Language Teaching: A Structural Equation Modelling-Based Study. His primary research interests include Arabic linguistics, dialect syntax, language teaching and learning, integrating technology in language teaching, and language revitalization. Email: [jllassim@mcmaster.ca](mailto:jllassim@mcmaster.ca)



**Bilal Zakarneh** received his Ph.D. in English from UoR in 2001. He is currently the Head of the Department of Languages and Culture at Ajman University, UAE. His research interests include English Language Teaching (ELT), applied linguistics, AI in language teaching, and world literature. He has published extensively on language pedagogy and intercultural communication. Email: [b.ibrahim@ajman.ac.ae](mailto:b.ibrahim@ajman.ac.ae)