

Case Study Research on the Hybrid Classroom Experience in Higher Education Post-Covid-19 from Students and Faculty Members' Perspectives in One of the UAE Universities

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Abstract: Due to the COVID-19 pandemic situation, an urgent online transmission was required to begin the second semester of 2022. Starting in the third week of the second semester, the university started offering hybrid classes to its students in an effort to make the learning process more efficient for all. The objective of this paper is to present the findings of the current case study research that was conducted on the campus of the university during the second semester of the academic year 2022. The research was based on individual interviews with eight participants, including one member of the academic faculty and seven students from higher education who had experience with hybrid and distance classrooms at the university. For the purpose of gaining insight into the participants' perspectives on the hybrid classroom experience, open-ended interview questions and ratings were collected from each and every participant. The three most significant issues that raise concerns are the interaction with peers, the academic content and the instructor, the presence of passive attendees, and the presence of technical issues during study time.

Keywords: Hybrid Classroom, Case Study, Interaction, Advantages, Disadvantages, Challenges.

1. INTRODUCTION

Over the last four years, educational institutions around the globe have experimented with a variety of teaching strategies, including traditional classroom instruction, online learning, blended or hybrid classrooms, or a mix of these approaches. In response to the pandemic, educational systems around the world did their best with the resources available to them, including funds allocated for hybrid learning, the understanding and cooperation of families, and the imagination and hard work of educators. Many people are concerned about the strain that virtual and in-person learning support can put on teachers and instructors, as well as the effectiveness of online learning for students. However, there are many who have seen the benefits of online education firsthand and believe that students of all ages can thrive in a blended classroom setting. The universities in Dubai were like many institutions hit hard by the pandemic; in response, they provided students with a range of learning options, including online, blended, hybrid, and face-to-face classes. What is a hybrid classroom strategy?

Hybrid learning is a new term for educational methods in which some students join the class in person, while others do so from the comfort of their own homes at the same time. Educators use video conferencing technology, software, and platforms to teach both virtual and in-person students at the same time. To supplement face-to-face classroom sessions, a hybrid class can include digital exercises, activities, and pre-recorded video lessons to support face-to-face classroom sessions. Hybrid courses efficiently combine the best elements of in-person and online learning, while improving learning effectiveness and efficiency. The challenge here relies on the instructor, who has to balance his or her attention between both online and on-site students.

1.2 What Is a Blended Learning Classroom Strategy (BL)?

There are many arguments about the definition of blended learning, and researchers have come up with three theories to describe BL as the following:

- A. An integration of pedagogical styles, communication, and delivery content.
- B. An implementation of different teaching methods.
- C. A mixed method between online and traditional classroom (in-person) learning, which is also confused as a

hybrid strategy.

Blended learning used to be defined as a teaching pedagogy that works with learners at one site, whether all of them are distant learners or all of them are on site. This instructional style includes modern technologies, devices, and platforms to facilitate the lesson and ensure outcomes for all learners. The Centre for Research in Digital Education released the video in 2021.

2. LITERATURE REVIEW

The hybrid instructional classroom has been considered the future of learning. Especially if the teaching method meets the criteria for success, maintaining a remote learning plan is an effective strategy to help students shift from distance learning to hybrid learning. Educators have worked hard to ensure that their pupils are engaged in digital learning. When transferring to an in-person setting, it can be challenging to ensure consistency of resources, content, and even agendas, as distant learners may not be able to fully participate when students and instructors switch between different learning venues. The best way to support all learners during this time of uncertainty and flux between the remote and in-person worlds is to continue planning for remote learning; it's the only way to stay consistent, accessible, and nimble enough to keep up with the changing tides while also leveraging all of the skills students gained in the new self-directed learning world. We can help students learn and grow together as a class, no matter where they are physically, by combining the two contexts and continuing to use the opportunities that remote learning provides: asynchronous learning, self-paced lessons, personalised pathways, additional one-on-one touchpoints, and so on. So, how can we create a stimulating and egalitarian environment for parallel learning? Here are some pointers from instructors who are always innovating and crossing the digital gap.

2.1 The Engagement Framework

The framework encompasses critical factors that influence students' engagement and performance at the university level. These dimensions are personal, academic, intellectual, social, and professional involvement, all of which are equally vital and frequently interact (Pittaway, 2012; Pittaway & Moss, 2014). As a brief context for the present investigation, a brief description of each ingredient follows.

To comprehend the nature of a hybrid course, we first need to examine its components online vs. face-to-face. The learning environment in an online classroom is considerably different from that in a regular classroom. Traditional classroom communication is mostly verbal, with visual signals and body language delivered in a real-time, FTF environment, but online communication takes place in virtual time in written text format with no use of body language. One may think that the absence of visual clues and body language would make asynchronous text communication ineffective. However, research (e.g., Davies & Graff, 2005) reveals that online users may send a broad variety of socio-emotional communications, including personal greetings, sentiments, and humor. In reality, written communication has a lot of power and flexibility, and individuals may project themselves socially and emotionally, as well as form interpersonal connections (Fjermestad, Hiltz, & Zhang, 2005). Furthermore, unlike conventional encounters, learners may evaluate and change their work before sending it off digitally after they have committed their knowledge to paper.

2.2 Interactive Academic and Social Cooperative Classroom.

Learner-Content Interaction, Learner-Learner Interaction, and Learner-Instructor Interaction are all integral components of effective teaching. Whether the courses are provided in person, online, or both, the essentials of high-quality teaching remain the same. When students are actively learning rather than merely viewing a video or listening to the instructor speak, they learn more effectively and are more involved in their education. Students need the ability to assess material, collaborate with others, and solve challenges. That isn't to say that direct teaching doesn't have a role in hybrid learning; there will be moments when it is the most efficient approach to imparting knowledge. Instructors need, however, to combine direct teaching with chances for more active and collaborative learning, in which students work in groups to debate content and produce a product that incorporates their new knowledge. "Resilient pedagogy"

should also play a significant role in hybrid learning environments.

Classrooms work effectively in synchronous hybrid learning situations. This paradigm is one in which the instructor creates exercises so that everyone, whether at home or in the classroom, may participate as effectively as possible. The instructor designs interactive lessons, discussions, and activities, such as team-based learning or cooperative learning, through their platform, instead of creating distinct classes for multiple learning modalities (in person, synchronous online, or asynchronous online). (Floyd et al., 2009); William (2006).

Considering social integration as a part of the learning environment, teachers may create opportunities for students to connect with peers in meaningful and collaborative ways, despite their location.

2.3 System Support

Global technology businesses have recently affected local organizations. Therefore, the increasing digitalization of universities presents numerous challenges related to commercialization. Commercial pressures have an impact on higher education technology. For example, business and industrial ideas affect much of today's university structure. "Content management systems," "workload management systems," "performance metrics," and "analytics" all help to further corporatize higher education.

Higher education institutions may benefit from digital technologies. They are seen as advances that contribute to equal educational opportunities for everyone, access to great educational content, and support lifelong learning (Enda & Gedik, 2015). (2015). (Karip) But the remedies themselves may be obstacles. There is a shortage of skilled instructional designers and technical support personnel, along with frequent updates (Glenn, 2008). Distractions, plagiarism, and cheating are deterrents for HEIs. Determining how digital technology may help 21st-century HEIs is crucial, as is identifying possible impediments and solutions.

However, it must be closely tied to the curriculum. So, utilize these tools to win. Technology has also enabled non-traditional learning situations. Online learning has made many activities possible. Understanding platforms and programmes is simple, but using them as teaching aids is difficult, and instructors must excel here. Technology is more than just a relic from the past. Institutions can generate many, if not all, of their instructional activities digitally. It has evolved from dull to inspirational and even entertaining (Bach & Fores, 2007).

The network is now a terrific way to learn and study. New learning paradigms have evolved with social media. In today's world, networks are crucial learning venues. Some writers express the obvious: (Jubany, 2012).

Another option is to ask a browser for several replies from writers. Higher education has embraced social networking to meet student and faculty needs (Veletsianos & Kimmons, 2012). Facebook or Twitter for universities? (Forkosh-Baruch & HersHKovitz, 2012). As part of the Bologna Process, students develop cross-cutting skills.

Students work in small groups (planned tutorials) throughout the semester. Examine student work, communication, and social media (in Agudo et al. 2013:1187–1188). This changed our outlook on schooling. Personal learning environments change the way we learn. Castaeda and Adell (2013) provide further context.

2.4 Professional Development Training

Collaborative Continuing Professional Development (CCPD) is one approach to collaborative professional development. Cordingley, Bell, Rundell, and Evans (2005) describe collaborative CPD as "teachers collaborating on a continuous basis with at least one other relevant professional" (Cordingley et al., 2005). The majority of studies that have used this kind of cooperation for professional development have found that it is most effective when an external professional provides feedback on the issue in addition to collaborative peer assistance. For instance, Kirkwood (2001) observed that the 'outside expert' first took the lead, with participants progressively taking on a more important role (Cordingley et al., 2005).

According to Harwell (2001), 'professional development for practicing teachers must bring together the expertise of researchers and the understanding of practicing teachers in a collaborative effort to influence instructional design (as cited in Cordingley et al., 2005). Bryant (2001) found that successful collaborative professional development necessitates setting aside time for instructors to contribute their personal knowledge about students and teaching, in addition to receiving input from subject-matter experts (as cited in Cordingley et al.).

2005). The professional learning community is a technique of professional development that promotes cooperation (Hord & Hirsh, 2008, as cited in Hord, 2009). Additionally, known as learning communities and professional communities, the unifying purpose of "community" models is to foster teacher cooperation through fostering a collaborative professional culture (Battersby & Verdi, 2015). A professional learning community (PLC) is a kind of professional growth that stems from daily work activities (Dunne, 2000, as quoted in Ning, Lee, & Lee, 2015).

DuFour, 2008, p. 14, as cited in Ning et al. (2015), characterises PLCs as "educators dedicated to cooperating in continuing processes of collective inquiry and action research in order to improve outcomes for the students they serve." The advantages of PLCs are widely proven in the literature, with a substantial body of current research establishing a favourable influence on both teacher and student results (Vescio, 2008, as referenced in Ning et al., 2015).

3. METHODOLOGY

3.1 Study Design and Setting

The current case study research approach was selected as the best method to understand the perspectives and experiences of graduate students in hybrid courses (Creswell, 2008; Richards & Morse, 2007; De Vos et al., 2011). Individual interviews were conducted with two samples of participants. At one of the university campuses, an argument was held about the hybrid teaching and learning program, its effectiveness, and its challenges. The aim of this research is to explore the perspectives of students and instructors on their experiences participating in a hybrid learning programme at the same university in Dubai. This will be achieved through one-on-one interviews conducted in February 2022 with students and instructors enrolled in a specific Master's program. The first group included seven master programme students, while the second group included an instructor from the same campus.

The author's interview questions were well structured, based on reading about successful criteria for hybrid teaching, challenges, and recommendations. One academic instructor at the same university in Dubai has evaluated and approved the interview questions.

3.2 Participants

The sample consists of two anonymous categories. The first category included seven anonymous students of the Master's programme to figure out students' perceptions about the experience of hybrid classrooms at the same university. One faculty instructor from the university participated in the second category.

Figure 1: Provides the demographic information of the participants in this research study.

	Students	Faculty Member
Number of Participants	8	1
Male	1	1
Female	7	0

3.4 Data Collection

One-on-one interviews served as the primary method of gathering data. Interviews were conducted with master's students and one faculty team member to understand their insights and experiences. Thirteen different types of questions were posed, with a greater emphasis on open-ended responses than the more traditional, closed-ended ones.

In terms of duration, the interviews were adhered to to accurately compare case study research interviews. Werecorded each interview, which lasted 30–40 minutes, for further analysis.

1. Have you been obliged or forced to study from home? Yes. No.
2. Have you used or been in a hybrid classroom?
3. How did you find this experience in terms of interaction?
4. How did you find this experience in terms of attendance?
5. How did you find this experience in terms of achieving learning outcomes?
6. How did you perceive this experience in terms of teaching quality?
7. How did you find this experience in terms of learning, taking into account time and effort?
8. How did you find this experience in terms of the instructor's attitude?
9. Have you faced any technical issues during teaching sessions? If so, how did it impact your learning session?
10. Do you enjoy the hybrid teaching experience at the university? Why?
11. What are the challenges with hybrid classes?
12. Would you like to add any recommendations for a better hybrid teaching implementation? 13. Rate this experience from 1 to 5.

4. DATA ANALYSIS AND FINDING

A. The Prospective Category for Students

The collected data from participants' interviews was analysed and divided into four main themes, as follows:

- I. Students' engagement and interaction
- II. Content delivery and quality of learning take time and effort into account.
- III. IT difficulties.
- IV. Recommendations for hybrid learning implementation and feedback.

The author initiated interviews, explaining the research goal of determining the hybrid learning experience at the higher education level from the perspective of the students.

Surprisingly, three students from the first category were confused about the definition of hybrid learning; it was obviously confused with blended learning. Four students answered yes to the first question when asked if they wererequired to

study from home.

The first theme discussed student interaction, and the answers came as follows: most students reported positive feedback about face-to-face interaction and engagement with the learning objectives and with the instructor compared to when the same students were attending online classes. However, two students reported their satisfaction that interactive group-engaging activities provided by the instructor enhanced the learning process for online and on-campus students.

In terms of attendance, the majority of the students questioned claimed that they still prefer to attend courses on campus rather than remotely; nevertheless, two of them liked the option to select between face-to-face and virtual attendance. In terms of passive attendance, interviewers noted a lack of interaction from many students who may attend the sessions passively. Second, all participants strongly agreed that the content was appropriate for both types of classes and achieved learning outcomes.

Thirdly, the majority of students expressed their belief that technical issues are likely to impact hybrid classes. Some of the interviewers reported internet issues; one of them reported forgetting their blackboard credentials; and in campus classes, some students reported two technical incidents that delayed the class for about 30 minutes.

Nevertheless, all students expressed their high satisfaction with the technical support team at the university.

Fourthly, the students rated their hybrid classroom experience at the university; two interviewers chose to rate 5/5, three rated 4/5, and one only rated their experience as 3/5.

Finally, many participants suggested ways to improve the live activation of hybrid learning course implementation in the future, such as considering the use of cameras and microphones as mandatory tools in hybrid classrooms as part of university protocol for online students enrolled in hybrid classes.

B. Faculty Member Prospective

The pandemic in 2020 forced the instructor to switch to an online mode. The last semester marked their first experience teaching a hybrid class. According to the academic faculty at the university, student interaction was very challenging in comparison to traditional classes. From their perspective, the attendance was excellent because the university's policy allows for both face-to-face and virtual attendance; however, they caution that the attendance may not be accurate due to the possibility of students ghosting and participating passively in class. Since all students at the university are over 18, there were no reported behavioural issues.

Learning outcomes were accomplishable in both virtual and traditional classes. Although they encountered some challenges when delivering academic content in hybrid classrooms, they asserted that delivering the content in a single direction within the class was easier. Even though they examined the time and effort involved in preparing hybrid teaching classrooms, they concluded that the hybrid approach is not the most effective teaching methodology.

Hybrid classes have experienced technical difficulties; the university's blackboard plays YouTube videos only when a link is posted on chat, and the IT support team at the university is doing everything it can to assist students.

The university was not completely prepared for the hybrid approach. Teaching faculty need practical training in hybrid classrooms because it is a novel and promising learning style that necessitates the development of new tactics.

Our interviewee, a faculty member, gave the experience a rate of 3 out of 5.

DISCUSSION

All the independent variables predicted student views of course satisfaction, with course design flexibility significantly influencing student perceptions of learning. Also, the hybrid delivery strategy, which combines in-class and online learning, was strongly associated with student learning. This implies that students in hybrid courses preferred the mix

of classroom and Internet delivery over either modality alone. While not causative, these data imply that variations in course design, delivery of materials, IT tools such as cameras, microphones, etc., and availability of Internet resources do affect student learning and overall satisfaction. These findings have implications for instructors working with course design and delivery. The investigation's results suggest some strategies to enhance hybrid courses at the university. The online resources, instructional activities, and class schedule allow students to prepare thoroughly for the course and actively participate in its activities. The students highlighted the advantages and disadvantages of both online and face-to-face courses, leading to the definition of their goals.

Maintaining a balance between sessions improved student learning and gave numerous opportunities to receive and communicate topic comprehension. Making intentional links between online and in-person courses boosted student engagement and review opportunities. These links are critical in creating hybrid courses.

The hybrid course lecturer has a unique set of obligations. The lecturer's role includes guiding and facilitating conversations and genuine interactions within the classroom (Blair, 2008). Students liked explicit and rapid teacher feedback as well as personalised online assignment replies (Paechter & Maier, 2010; Reupert, Maybery, Patrick, & Chittleborough, 2009). Lee and Dashew (2011) claim that acknowledging student effort and providing detailed comments helps students interact online. Students also benefit from an easily available online component structure with tasks, connections, and resources. The lecturers need to create a clear framework and use user-friendly equipment (Grey & Tobin, 2010). Instructors should be ready to meet with students online or in-person to address questions (Zhou, Simpson, & Domizi, 2012).

In this research, a significant number of master students still confuse hybrid learning with the blended approach, which raises the importance of defining hybrid teaching methodology. The majority of master students and the instructor who were interviewed preferred to attend traditional classes in terms of social interaction with content, instructors, and their peers; moreover, some other students preferred to save time and effort by joining classes digitally instead of travelling, considering saving time and effort in this case, particularly because they believe that learning outcomes are achieved and that they can revise learning materials and lecture notes easily at any time on the university blackboard.

All research categories agreed that interaction is a significant issue in this experience, yet the importance of balancing the instructor's attention to both face-to-face and virtual classes was also reported as an essential command. The impact of physical attendance in class reflects on the teaching attitude, as the instructors are likely to be focused on face-to-face students rather than virtual ones. The use of technological aiding tools to fully integrate students socially and visually in class has also been highlighted, as has a reliable internet network, which all play a critical role in this encounter.

CONCLUSION AND IMPLICATIONS FOR FUTURE RESEARCH

Since synchronous hybrid learning is novel, this study is intended to summarise the best available evidence locally to get a picture of the present research landscape. All educators and teachers at schools, colleges, or universities need to be up-to-date with recent teaching techniques to maintain a high-quality of teaching experience, especially when it comes to the technology age revolution. This systematic study was obtained by academics who have investigated the advantages, obstacles, and design principles for synchronous hybrid learning. Existing data suggests the new practice's potential. Despite the obstacles, research shows synchronous hybrid learning to be more flexible and engaging than purely online or on-site training. Based on our assessment, the most available material is experimental and qualitative, describing students' experiences, organisational implementation, and technology design.

According to this study (Abdelmalak and Parra 2016; Bower et al. 2015; Butz and Askim-Lovseth 2015; Butz and Stupnisky 2017; Olt 2018; Zydney et al. 2019), the impact of student interaction in the in-class category on teaching quality and dwell time expansion is still in its early stages. As with any complicated learning environment, early development and research raise additional issues. Synchronous hybrid education requires further empirical research to support the case studies. We need additional research to examine the influence of diverse instructional settings on student results. The study's findings suggest that future research should concentrate on the following areas:

- C. Investing in practical professional development training courses for faculty members and the IT team.

- D. Wider and various samples of students and academic members to evaluate the hybrid teaching approach.
- E. Solutions for passive attendees from IT and peers' perspectives.

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