Lecturers' Perception of Hybrid Learning Implementation in a Tertiary Institution: A Proposed Mixed-Method Study

Sangeeth, R. [1], Nursyuhada', A.W. [2], Nur Khadirah A.R[3], *Farhan Ahlaamie, P[1]. and Nur Fadhila, A[1]
[1]Faculty of Education, Social Sciences and Humanities, Universiti Poly Tech Malaysia, Malaysia
[2]Faculty of Major Language Studies, Universiti Sains Islam Malaysia, Malaysia.
[3]Language Centre, Universiti Pertahanan Nasional Malaysia, Malaysia
ahlaamie@uptm.edu.my

Abstract. Aligned with Sustainable Development Goal 4 and the Malaysian Education Blueprint, hybrid learning is seen as a delivery mode which provides equitable, high-quality, and globally relevant education. Although its use is growing, existing research shows mixed results regarding the implementation of hybrid learning, particularly within Malaysian universities. This gap highlights the need for a dedicated study in this area. This study unravels the perception of the lecturers regarding the implementation of hybrid learning in a private higher learning institution, a teaching approach that combines in-person instruction with online learning. The study uses a mixed methods design to collect both quantitative and qualitative data from the lecturers at a selected institution. Quantitative data will be gathered via online surveys and analyzed with SPSS, using descriptive statistics to identify the perceptions of the respondents related to hybrid learning. Qualitative data will be collected through semi-structured interviews and analyzed thematically to explore participants' views in depth. Initial expectations suggest that hybrid learning could improve flexibility and accessibility, but it also may present challenges related to technology and communication. The study aims to provide practical insights into the use of hybrid learning in the context of a private higher learning institution, supporting policy development, instructional design, and future teaching strategies in the higher education context. The key findings of this study may provide pedagogical implications to the curriculum designers and the instructors of higher learning institutions in terms of improving the teaching and learning practices in a hybrid learning environment.

Keywords: hybrid learning, implementation, lecturers' perception, higher education

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1 Introduction

1.1 Background

The 4th Sustainable Development Goal aims to provide good and quality education to all higher learning institutions all over the world (Marshall, 2019). It is very crucial for tertiary students to receive a good quality education so that they will have high employability and they will be able to compete globally. The Ministry of Higher Education Malaysia is committed to enhancing the quality of higher education in alignment with Sustainable Development Goal 4, which emphasizes inclusive and equitable education for all (Ministry of Education Malaysia, 2015). In particular, Shift 9 of the Malaysian Education Blueprint 2015–2025 underscores the importance of globalized online learning by promoting the integration of digital technologies into pedagogical practices. As a result, a growing number of higher education institutions have adopted online learning modalities to support and transform their teaching and learning environments (Hussein & Hilmi, 2022).

The widespread adoption of online learning emerged as a necessary response to the global disruption caused by the COVID-19 pandemic, including in Malaysia (Mustapha et al., 2024). In the post-pandemic era, now characterized by COVID-19's endemic status, Malaysian higher education institutions have transitioned towards blended learning models that integrate online and in-person instructional methods (Cobo-Rendón et al., 2022; Thahir et al., 2023). Additionally, some institutions have embraced hybrid learning frameworks, which offer a more fluid combination of synchronous and asynchronous modalities within physical and virtual classrooms. This pedagogical shift has been driven by rapid technological advancements and the growing demand for flexible educational delivery (Kazu & Kurtoglu Yalcin, 2022). Empirical research has demonstrated that hybrid learning can significantly improve student academic performance (Chang et al., 2021; Korkmaz & Kadirhan, 2020).

However, despite its benefits, the implementation of hybrid learning has not been without complications, as both students and educators have reported various challenges in adapting to this mode of delivery (Al-Enzi et al., 2024; Ashraf et al., 2021). Among the primary concerns raised by the students in the earlier research were technological difficulties. (Aboagye, Yawson & Appiah 2020; Aji, Ardin & Ariffin 2020; Mohammad Nassr et al. 2020), internal challenges (Krishnamoorthy, Kalaivani and Mahalecumy 2020). and problems related to communication (Paudel 2020). The challenges faced in hybrid learning settings in the previous studies could be due to several factors such as dual-model interaction complexity, unequal access to the infrastructure, low or average level digital literacy and inadequate institutional readiness. Hybrid learning is very much context-dependent, and thus, all the aspects need to be emphasized to ensure an effective implementation of hybrid learning at higher learning institutions. Therefore, hybrid learning is implemented by some higher learning institutions where more emphasis is placed on the online components as compared to face-to-face components. Several studies have been conducted on hybrid learning by past researchers such as Yalan and Marcial (2025), Hamid (2024), and Mahalli, Sadiah & Rosdiana (2024); nevertheless, fewer studies focus on the in-depth perceptions of the educators with regard to its implementation in the classroom. Hence, there is a strong need for this current research to be conducted,

which examines the lecturers' perceptions especially on delivery flexibility as in hybrid learning, instruction is offered partly in person and partly online, often with some students attending physically while others join remotely at the same time. In contrast, blended learning focuses on pedagogical integration and HyFlex emphasizes on student agency and access. This research is aimed at investigating the perceptions of lecturers particularly related to the instructional design quality and lecturers' digital pedagogy at a selected tertiary institution regarding hybrid learning implementation.

The insights derived from this article offer valuable implications for the Ministry of Education, university administrators, and educators by highlighting effective strategies for optimizing hybrid learning implementation. The core findings serve as a practical resource for strengthening hybrid teaching and learning practices within higher education institutions. Specifically, educators and institutional leaders in tertiary settings may draw upon these findings as evidence-based guidance to refine and advance current hybrid learning models in their respective academic environments.

The authors organized this paper by providing the background of quality education and the significance of providing quality education to tertiary learners. Subsequently, the authors present an in-depth discussion of the strategies adopted by higher education institutions, with particular emphasis on the contrasting practices observed before and after the COVID-19 pandemic. This is followed by a contextual overview of Malaysia's tertiary education landscape. The paper then explains the methodology section, where the authors detail the research approach undertaken to gather the data collected from the participants. Next, the authors included and explained the expected results of the study. Finally, the authors present the conclusion and discuss the broader implications of the findings. The research question that guided this review is outlined below;

Research question: What are the in-depth perceptions of lecturers related to the instructional design quality and lecturers' digital pedagogy at a selected higher learning institution on hybrid learning implementation?

2 Literature Review

2.1 Definition of Hybrid Learning

Hybrid learning is an instructional approach that combines in-person classroom sessions with separate online learning components, allowing learners to engage with course materials and instructors through multiple modes. Unlike blended learning, which often integrates online tools into face-to-face lessons or blends between face-to-face sessions with online activities, hybrid learning distinctly separates physical and virtual learning activities within a structured framework. This definition provides the foundation for reviewing existing literature on its implementation, pedagogical adaptations, and challenges in higher education contexts. This section will start with the definition of hybrid learning by a few authors as listed in the following table;

Table 1. Definitions of hybrid learning

Author(s)	Definition of hybrid learning
Garrison & Vaughan (2008)	A design approach that intentionally integrates online and face-to-face learning experiences.
Uzun et al. (2010)	A mode of instruction that combines Internet-based delivery with traditional classroom teaching.
Bokolo (2021)	A pedagogical model combining synchronous and asynchronous teaching using various digital platforms and tools.
Hamid et al. (2025)	An instructional model that merges in-person sessions for interaction and practice with asynchronous online components
Canh & Tan (2024)	An innovative educational approach that links conventional classroom meetings with virtual learning environments.

Table 1 outlines the definitions of hybrid learning as presented by several scholars. Hybrid learning is widely defined as an instructional approach that strategically combines face-to-face and online learning to optimize engagement, flexibility, and instructional effectiveness. It leverages synchronous in-person sessions for interaction and support while using asynchronous digital tools and platforms to facilitate autonomous and resource-rich learning. The definitions emphasize intentionality in course design and the integration of digital technologies with traditional methods to enhance learning experiences and accessibility (Garrison & Vaughan, 2008; Bokolo, 2021; Hamid et al., 2025). Although scholars consistently agree on the integration of face-to-face and online components, they differ in emphasis on synchronicity, instructional intentionality, and the role of technology. This suggests varied interpretations of hybrid learning in practice.

The evolution of hybrid learning in tertiary education has been widely acknowledged as a transformative force in modern pedagogy. While its adoption has accelerated in response to global disruptions and digital advancement, successful implementation depends on multiple interconnected factors, from institutional readiness to individual educator capacity. These definitions establish hybrid learning as an intentionally designed integration of physical and virtual instruction, forming the conceptual basis for examining lecturers' perceptions of its implementation.

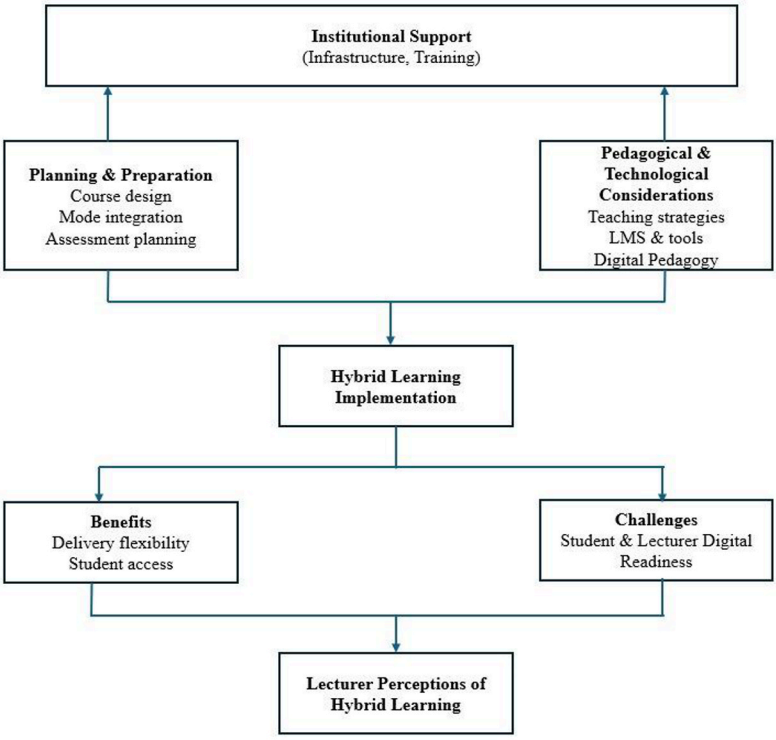

Fig. 1. Key Themes on Hybrid Learning Implementation

Figure 1 presents the framework guiding this study. Drawing on prior hybrid learning literature, the framework positions institutional support as a foundational enabling factor influencing both planning and preparation as well as pedagogical and technological considerations. These elements collectively shape lecturers' hybrid learning implementation practices. Lecturers' experiences of implementation subsequently inform the benefits and challenges of hybrid learning, which together influence overall lecturer perceptions regarding the effectiveness and sustainability of hybrid learning in higher education.

2.2 Planning and Preparation of Hybrid Learning

The practical implementation of hybrid learning necessitates meticulous planning and preparation, which are crucial in establishing a solid foundation for its success. Research indicates that institutions should focus on redesigning curriculum structures, selecting appropriate digital platforms, and offering adequate staff training as

foundational elements (Kamsin, 2024). A strategic approach to planning involves aligning educational methodologies with institutional visions and student needs and assessing available technological infrastructures (Adam, 2022). Early involvement of lecturers in the planning stages has been shown to facilitate smoother transitions to hybrid models, thereby reducing the burdens educators face when navigating the complexities of hybrid instruction independently, which is often exacerbated by a lack of formal guidelines (Kauppi et al., 2020). Moreover, engaging in collaborative course design, where practical challenges can be addressed collectively, may enhance preparedness across institutions (Bugden & Mok, 2023; Ntlabathi et al., 2023). While existing studies collectively emphasise the importance of planning and preparation, they vary in the degree to which institutional support versus individual lecturer initiative is highlighted as the primary driver of successful hybrid learning implementation. Collectively, these studies highlight planning and institutional readiness as key influences on hybrid learning implementation, aligning with this study's focus on lecturers' perceptions.

2.3 Benefits of Hybrid Learning

Hybrid learning presents several pedagogical and practical benefits that significantly enhance the educational experiences of tertiary students. One of the most prominent advantages is its flexibility and accessibility. Students can choose between synchronous and asynchronous options, allowing them to balance academic responsibilities with personal and professional commitments (Palmer et al., 2022). This flexibility, complemented by access to recorded lectures and digital resources, mitigates geographic disparities and facilitates educational equity.

Additionally, hybrid learning fosters increased student engagement. The utilization of diverse multimedia tools and collaborative platforms accommodates various learning styles, effectively enhancing student motivation and interaction (Gamage et al., 2022). Furthermore, the model allows for developing essential skills such as digital literacy, self-management, and problem-solving, which are critical for future employability (Dietrich et al., 2020; Chukwuemeka-Nworu et al., 2024). Another significant benefit is the capacity for tailored learning experiences. The opportunity for students to review materials at their own pace aligns with contemporary constructivist and connectivist learning theories that emphasize learner autonomy and the importance of dynamic knowledge connections (Maatuk et al., 2021).

Moreover, the inherent flexibility and autonomy characteristic of hybrid learning can lead to heightened academic motivation and overall positive attitudes towards learning. Students often report higher satisfaction levels due to their ownership and control over their educational paths, which can further translate into improved academic performance (Asad & Malik, 2024). While the literature emphasises learner benefits, fewer studies address how lecturers perceive these advantages, supporting the focus of the present study.

2.4 Challenges of Hybrid Learning

Despite the pronounced advantages of hybrid learning, its implementation has significant challenges. One of the most pressing issues is the technological barriers that persist in many educational contexts. Inconsistent internet access, a lack of devices, and limited digital proficiency, especially in rural or underserved areas, frequently disrupt student engagement and participation, creating disparities in learning experiences between online and in-person learners (Abuhassna et al., 2022).

Pedagogical misalignment poses further challenges, as instructors often struggle to design lessons that effectively serve the needs of both remote and physical learners. Retaining curriculum integrity and ensuring quality interactions in practical subjects remains difficult (Tierney et al., 2023; Raes, 2021). Additionally, students attending online sessions frequently report feelings of isolation, leading to a diminished sense of community, which is a vital aspect of the Community of Inquiry framework necessary for effective learning (Kurniawan et al., 2022; Chen and Lai, 2024).

Institutional gaps further intensify these challenges. Many institutions lack coherent policies regarding hybrid instruction, resulting in inconsistent learning experiences. The inconsistent integration of Learning Management Systems (LMS) and inadequate lecturer training often leads to fragmented implementation (Anggaira & Sari, 2023; Mallillin, 2023). Across studies, technological, pedagogical, and institutional challenges are consistently reported. However, the relative severity and interaction of these challenges appear to vary across contexts and stakeholder perspectives. These recurring challenges underscore the importance of examining lecturers' perceptions of constraints in hybrid learning implementation.

2.5 Pedagogical and Technological Considerations of Hybrid Learning

The success of hybrid learning hinges on innovative pedagogical strategies combined with effective technological integration. Educational tools such as Learning Management Systems, breakout rooms, and polling applications enhance the learning experience but require deliberate planning and training (Maatuk et al., 2021). Hybrid learning also advocates for adopting active, student-centred teaching approaches aligned with constructivist principles, requiring continuous instructional efficacy assessment to manage remote and in-person learners effectively (Dietrich et al., 2020; Lee et al., 2022).

Lecturers face the dual challenge of delivering effective instruction while adapting to technological demands, which increases their workload and necessitates a comprehensive skill set (Adedoyın & Soykan, 2020; Omeh et al., 2022). Developing strong technological competencies among educators is essential to successfully implement hybrid strategies that promote effective learning outcomes (Kučera & Haffner, 2025; Maatuk et al., 2021). These considerations point to the adaptive demands placed on lecturers, reinforcing the relevance of exploring their perceptions of hybrid teaching practices.

2.6 Institutional Support and Stakeholder Engagement

Institutional leadership plays an essential role in the successful implementation of hybrid learning. Institutions that provide consistent technical support, structured training programs, and accessible platforms foster environments where lecturers can thrive (Adedoyın & Soykan, 2020). Engaging stakeholders, including lecturers, students, and administrators, during the planning and evaluation processes significantly enhances institutional relevance in hybrid education (Mufaridah, 2021). Feedback mechanisms like student surveys, focus groups, and peer mentoring sessions can foster continuous improvement. However, many educators report feeling excluded from decision-making processes, leading to implementation gaps and dissatisfaction among staff (Omeh et al., 2022). The literature consistently indicates that institutional support shapes hybrid learning experiences, directly informing this study's focus on lecturers' perceptions.

3 Methodology

3.1 Research Design

This study employs a mixed-method design, integrating both qualitative and quantitative approaches. The combination of these methods allows for a comprehensive investigation of the research questions and a deeper understanding of the lecturers' perceptions of hybrid learning implementation at a selected institution. A quantitative research approach enables the collection of data from a broad participant base, thereby enhancing the potential for the results to be generalized across a larger population. Conversely, qualitative research offers nuanced insights into the subject matter, emphasizing the participants' perspectives and lived experiences. While quantitative data contribute to the breadth of a study, qualitative data enrich its depth. Notably, the integration of both approaches through triangulation allows for a more robust analysis. Triangulation involves employing diverse methods or data sources to attain a more holistic understanding of the research problem or to strengthen the study's validity by confirming findings through multiple forms of evidence (Carter et al., 2014).

3.2 Participants

A selected higher learning institution has been used as the research site for this study. For the quantitative phase, a survey will be administered to lecturers from higher learning institutions, with the sample size determined based on principles of statistical adequacy and representativeness. A probability sampling technique, specifically stratified random sampling, is employed to ensure adequate representation of lecturers across faculties and academic disciplines. Stratified sampling is recommended in educational research to reduce sampling bias and improve the representativeness of survey findings (Creswell & Creswell 2018). According to Krejcie and Morgan (1970), a sample of approximately 200 respondents is appropriate for survey research involving large academic populations, ensuring sufficient confidence and reduced sampling error.

Other than a survey, the researchers will be conducting interviews with a smaller group of lecturers to investigate their perceptions of the implementation of hybrid learning. The participants for this study will be selected using a non-probability sampling technique, namely purposeful sampling. Purposeful sampling is widely used in qualitative research to identify information-rich participants who can provide in-depth insights into the phenomenon under study (Patton, 2015). Selection is done according to several criteria, such as a minimum of 1-2 years of teaching experience, being the current lecturer at the selected institution, and willingness to participate. Creswell and Creswell (2018) suggest that 10–20 interview participants are sufficient for qualitative inquiry when the aim is to gain rich, contextualised insights rather than statistical generalisation.

3.3 Data Collection

A few instruments will be used to gather the information required for this study. One of the instruments that will be used in this study is a survey. Surveys facilitate data collection from a broad and diverse sample, increasing the likelihood that the findings can be extrapolated to reflect broader population trends. The survey measures lecturers' instructional practices, technological readiness, institutional support, perceived effectiveness, and challenges of hybrid learning, with items adapted from previously validated instruments and contextualised for higher education lecturers. A five-point Likert scale ranging from "strongly disagree" to "strongly agree" will be used to capture attitudinal responses in a consistent and reliable manner. Another instrument which will be used in this study is a semi-structured interview with the lecturers. The interview is designed to explore lecturers' perceptions and challenges in implementing hybrid learning in higher education. The interview protocol is developed based on findings from the quantitative survey and relevant literature to ensure alignment with the research objectives and coherence between the two phases of the mixed-methods design. One key advantage of semi-structured interviews lies in their flexibility, allowing researchers to pose open-ended questions that can be adapted based on participants' responses (Merriam, 2009). This adaptability facilitates the generation of detailed, contextually rich, and accurate data, making the method particularly effective for capturing nuanced insights during the data collection phase (Bloomberg & Volpe, 2016).

3.4 Research Procedure

Prior to data collection, the researcher will develop a formal interview consent form to ensure ethical compliance. Participants will be required to provide informed consent by signing the form before engaging in the interview. They will be informed that each interview will last approximately one hour and will be audio-recorded for accuracy. To foster an open and comfortable environment, participants will be granted ample time and autonomy to articulate their thoughts freely. Throughout the sessions, the researcher will not only follow a standardized interview protocol but also take observational notes on the participants' nonverbal behaviours to enrich contextual

understanding. Subsequently, the researchers will transcribe the interviews and will do the initial coding process to begin data analysis. Other than that, the researchers will also distribute an online survey to the respondents to gather the data required for this study.

3.5 Data Analysis

The data gathered from this study will be analyzed using descriptive statistics and thematic analysis. The descriptive statistics are calculated to find the mean, standard deviation and frequencies. Thematic analysis will be used in identifying the categories to answer the research question as recommended by Braun and Clarke (2006). The process comprises six structured phases: initially engaging with and understanding the dataset, followed by generating initial codes, identifying potential thematic patterns, evaluating the coherence and relevance of these themes, clearly articulating their definitions, and ultimately synthesizing the findings into a comprehensive thematic report.

3.6 Reliability and Validity

The reliability and validity of the questionnaire and interview questions are tested to ensure that the questions appropriately cover the relevant subjects (Suruchu & Maslakci, 2020). Content validity of the survey will be established through expert review by a few specialists in educational technology and research methodology, to assess item relevance and clarity. A pilot study involving approximately 30–40 lecturers will be conducted to refine the instrument. To enhance the credibility and dependability of the study's findings, the researcher will adopt multiple validation strategies aligned with Merriam's (2009) framework. Specifically, this study will incorporate member checking and triangulation as core mechanisms for establishing data trustworthiness. Member checking will be conducted by sharing interview transcripts with participants for verification and accuracy. Additionally, triangulation will be utilized to reinforce the integrity of the findings. While Merriam (2009) identifies four key triangulation strategies, engaging multiple investigators, employing various methods, drawing from diverse data sources, and applying different theoretical perspectives, the researchers will focus on methodological triangulation. In this study, data collected through surveys will be corroborated with participants' insights from semi-structured interview sessions.

4 Expected Outcomes

Drawing from the research question, interview protocol, and questionnaire constructs, this study anticipates several thematic outcomes that reflect lecturers' perceptions of hybrid learning implementation in a higher education setting. As this is a proposed study, the outcomes presented in this section represent projected insights rather than established findings. Supporting literature is used selectively to contextualise these expectations, while the primary focus remains on how the anticipated themes may address the research question.

4.1 Planning and Preparation Insights

The study is anticipated to reveal that lecturers play an active role in planning and preparing hybrid learning activities, often navigating this process with various levels of institutional guidance. This expectation aligns with research indicating that educators often independently redesign course content and platforms when formal guidelines are limited (Kurniawan et al., 2022). While some lecturers may demonstrate proactive planning through independent course redesign, peer collaboration, or experiential learning, others may encounter constraints due to limited training or unclear institutional frameworks, as highlighted in earlier research (Jamilah & Wahyuningsih, 2023). As a result, planning practices are anticipated to vary across departments. This reflects different levels of readiness and institutional support (Kurniawan et al., 2022).

Planning and preparation are anticipated to be critical components for the successful implementation of hybrid learning in tertiary institutions, as they directly influence the coherence and effectiveness of course delivery. Lecturers are expected to carefully design curricula that balance theoretical and practical components, deciding which activities are best suited for face-to-face sessions and which can be effectively delivered online (Hamid et al., 2025). This requires meticulous planning of learning materials, assessment strategies, and the use of technology to ensure alignment with learning outcomes. Consistent with prior findings, lecturers who received institutional support and engaged in collaborative planning with peers are anticipated to be better positioned to manage hybrid environments, particularly in addressing technical challenges and sustaining student engagement (Canh & Tan, 2024). Furthermore, Bokolo (2021) emphasized that facilitating conditions such as access to training, infrastructure, and peer support are expected to significantly impact lecturers' readiness and confidence during the planning and preparation phases.

Collectively, these projected insights are expected to illuminate how lecturers perceive their preparedness and the adequacy of institutional structures when implementing hybrid learning. This theme directly addresses the research question by capturing lecturers' perceptions of planning responsibilities and institutional readiness in hybrid learning implementation.

4.2 Perceived Benefits

Lecturers will likely emphasize a range of benefits associated with hybrid learning environments, particularly in terms of flexibility and accessibility in content delivery. One notable advantage is greater flexibility in content delivery, which supports individualized learning paths and allows students to engage with materials at their convenience. In addition, increased student engagement is expected to be highlighted, particularly through the use of interactive tools and digital platforms. These tools, as supported by Thamrin et al. (2022), encourage active participation, especially when integrated into problem-based learning formats. Lecturers may also anticipate improved student engagement, consistent with constructivist principles that promote deeper learning through tailored educational strategies. Moreover, hybrid learning environments foster the development of transferable skills such as time management

and digital fluency. These outcomes reflect connectivist theories that underscore learning through networked, technology-rich experiences (Roman & Plopeanu, 2021). Overall, the anticipated findings demonstrate how hybrid learning is intrinsically linked to the theoretical frameworks of connectivism, constructivism, and the Community of Inquiry (CoI), thus reinforcing its educational value in contemporary learning contexts (Yusuf, 2020).

Overall, these anticipated benefits reflect how lecturers may value hybrid learning as a pedagogically meaningful approach rather than merely a logistical alternative to face-to-face instruction. This theme directly addresses the research question by capturing lecturers' perceptions of the instructional value and educational benefits of hybrid learning implementation.

4.3 Key Challenges Identified

This study is also expected to uncover several pressing challenges associated with hybrid learning. Among these are poor internet access and lack of appropriate digital devices, an issue that remains pervasive across educational settings and continues to hinder equitable access to learning (Zalat et al., 2021; Chukwuemeka-Nworu et al., 2024). Additionally, the overwhelming workload lecturers face in designing and managing dual-mode instructional delivery may contribute to burnout and diminish teaching effectiveness (Sarier & Uysal, 2022). Another challenge concerns unequal engagement between online and in-person students, a problem documented by Zalat et al. (2021), who observed varying levels of satisfaction and participation depending on students' mode of attendance. Furthermore, limited curriculum adaptability presents a significant barrier, particularly for practical or hands-on subjects. As Jamilah and Wahyuningsih (2023) note, such courses require innovative pedagogical adjustments that are not always supported institutionally. These challenges collectively emphasize the discrepancies between the theoretical potential of hybrid learning and the real-world conditions of its implementation, particularly in under-resourced environments (Kurniawan et al., 2022).

Lecturers encountered multiple obstacles in hybrid learning environments, particularly in balancing the demands of technology, instructional delivery, and student participation. Poor internet connectivity and limited technological resources among students often interrupted online lessons and hindered the timely submission of tasks (Hamid et al., 2022). Furthermore, motivating students during asynchronous learning proved challenging, as many faced difficulties in managing their time and staying focused without direct supervision. The hybrid model also placed a heavier burden on lecturers, who were responsible for creating and managing both virtual and in-person learning materials. In addition, both educators and students initially lacked familiarity with digital platforms, underscoring the importance of ongoing training and institutional support to enhance digital competence (Hamid et al., 2022). These projected challenges address the research question by reflecting lecturers' critical perceptions of the constraints and complexities involved in hybrid learning implementation.

4.4 Pedagogical and Technological Adjustments

The study may also uncover lecturers' various adaptive strategies to address pedagogical limitations in hybrid learning contexts. For instance, flipping the classroom is likely to be cited as a valuable strategy to promote active engagement during synchronous sessions (Yusuf, 2020). Similarly, pre-recorded lectures may be used for asynchronous reinforcement, allowing students to learn at their own pace and revisit complex topics as needed (Bartek et al., 2022). The design of hybrid-compatible group work is also expected to emerge as a tactic for promoting collaboration and interaction across online and in-person modes (Müller, 2022). Furthermore, lecturers may report the use of multiple platforms to diversify student engagement and enrich learning experiences.

Hybrid learning in tertiary education requires lecturers to make significant pedagogical and technological adjustments, including the integration of digital tools and flexible instructional strategies to engage students across multiple platforms (Hamid et al., 2025; Canh & Tan, 2024). These shifts highlight the need for continuous training and support, particularly in enhancing lecturers' digital literacy and applying frameworks like TPACK to ensure effective teaching delivery (Bokolo, 2021; Canh & Tan, 2024). Despite these creative efforts, findings may highlight the need for greater institutional investment in technology platform integration, standardization of tools, and professional pedagogical support to enhance hybrid learning effectiveness.

This theme directly addresses the research question by illustrating how lecturers perceive and respond to instructional challenges through pedagogical and technological adaptation in hybrid learning contexts.

4.5 Support Systems and Feedback

Finally, the research will likely reveal varied experiences regarding the support obtained for hybrid learning, which includes institutional and peer support. While some lecturers may benefit from structured training programs and timely IT support, others might experience policy ambiguity, insufficient resources, and limited access to technical assistance (Bartek et al., 2022). As a result, several recommendations may emerge from participants. These include the development of clearer hybrid learning policies that articulate expectations and available resources, thus minimizing confusion and inconsistency (Blackmon & Major, 2023). Structured feedback mechanisms involving lecturers and students also foster continuous reflection and refinement of hybrid teaching practices. Additionally, mandatory training in hybrid instruction for all teaching staff may be proposed to ensure consistency in both pedagogy and technology use.

Peer and colleague support has emerged as a critical factor in the successful implementation of hybrid learning models in tertiary education. Across multiple studies, lecturers have emphasized the importance of collaborative networks, particularly in navigating technological barriers and pedagogical adjustments. For example, in Canh and Tan's (2024) study on English lecturers in Vietnam, peer support was crucial in sharing teaching materials and resolving technical difficulties, especially for those with limited technological proficiency. This collaborative environment helped reduce the isolation often associated with hybrid instruction and promoted shared innovation in course delivery. Similarly, Hamid et al. (2025) noted

that lecturers leveraged colleague interactions to refine their hybrid teaching practices and manage increased workloads. These findings are echoed by Bokolo (2021), who identified social factors, including peer influence and institutional culture, as significantly shaping lecturers' perceptions and willingness to adopt blended learning approaches. Collectively, these studies suggest that supportive peer networks not only facilitate the operational aspects of hybrid teaching but also foster a sense of community and professional growth among educators.

This theme addresses the research question by revealing lecturers' perceptions of how institutional structures, peer collaboration, and feedback mechanisms support or hinder effective hybrid learning implementation.

5 Conclusion and Implications

This proposed study aims to explore the perceptions of lecturers in the implementation of hybrid learning, focusing on the challenges, benefits, and pedagogical adaptations required in such settings. By investigating lecturers' experiences and viewpoints, the study seeks to provide a comprehensive understanding of how hybrid learning is being integrated within higher education, especially in post-pandemic academic landscapes. The findings are expected to reveal key areas pertaining to hybrid learning implementation, which cover the perceived benefits, key challenges, pedagogical and technological adjustments, and institutional support and stakeholder feedback. This study offers valuable insights that can influence both strategic policy decisions and the effective execution of hybrid learning, with a particular emphasis on lecturers' roles and responsibilities. Insights gained from the study can guide institutional leaders and policymakers in refining hybrid learning frameworks, improving training programs, and allocating resources more effectively to support lecturers. Furthermore, the study may inform future curriculum design and pedagogical strategies that align with hybrid learning demands. Ultimately, understanding lecturers' perceptions will contribute to the development of more inclusive, efficient, and sustainable hybrid education systems in tertiary settings.

These anticipated findings, supported by the extant literature, underscore the importance of support systems, including institutional commitment, responsive feedback and peer mentoring, enabling a successful hybrid learning environment. The study aims to contribute meaningful insights into the nuanced realities of hybrid learning implementation in higher education by illuminating its opportunities and limitations.

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