# Hybrid Learning Model in Post-Pandemic Education: Lecturers Attitude in Indonesian and Uzbekistan Higher Education

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### ABSTRACT

Since hybrid learning has grown in popularity in the post COVID-19 era, regular evaluation is critical to improving the quality of hybrid learning in higher education. Considering the issue, the current study seeks to explore how the lecturers both universities, Indonesia and Uzbekistan, perceive hybrid learning model and how they put their perception into the classroom practice. This study employs sequential explanatory research and uses atlas.ti9 to analyze the necessary data. The results indicate substantial differences in the way lecturers put their perception of hybrid learning into the classroom. The differences are categorized into two types of lectures, namely highly concerned of hybrid learning and lowly concerned of hybrid learning. It is identifiable that the more lecturers perceive positive attitude of hybrid learning model the more lecturers well-adopted of hybrid learning model into the classroom practice. This study offers beneficial insights for higher education stakeholders to improve the quality of hybrid learning in university settings. This research distinguishes itself by focusing on a comparative analysis of lecturers attitudes from two different cultural and educational systems, Indonesia and Uzbekistan. While prior studies have explored hybrid learning models in individual contexts, few have examined their cross-cultural adoption and practical implementation. This comparative approach provides novel insights into how hybrid learning can be adapted to diverse educational landscapes, contributing both to theory and practice.

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# 1. INTRODUCTION

The education system must modernise in a thriving society to keep up with technological advancements. Technology for interactive communication is transforming the traditional educational environment. [1] claimed new learning environments and teaching technologies use information and communication technologies such as e-learning, open and distance learning, web-based learning, blended learning, and hybrid learning have been introduced in many courses. Hybrid learning, also known as blended learning, is a common concept in today's educational systems around the world. Unlike prior studies that predominantly examined the effectiveness of hybrid learning in general [2, 3], this research provides a comparative perspective by analyzing

lecturers attitudes from two distinct cultural and educational contexts: Indonesia and Uzbekistan. This dualcontext approach fills a gap in understanding the cross-cultural dynamics of hybrid learning adoption and its practical implementation, making it a unique contribution to the literature. Unlike traditional classroom methods, hybrid learning combines online and face-to-face learning [4]. state Hybrid Learning or Blended Learning refers to the combination of e-learning based learning methods (electronic learning) with face-to-face learning methods or conventional methods.

The evolution of contemporary technologies has significantly extended human life. Technology has contributed to new trends in language instruction and language assessment in education. Recent studies [5, 6] emphasize the growing role of hybrid learning in addressing post-pandemic educational challenges. These works highlight the importance of adaptability and digital literacy, aligning closely with the themes explored in this study. By incorporating these recent findings, this paper situates itself within the latest developments in hybrid learning research. Because of the availability of technology, teaching and learning processes have evolved and become more fascinating and straightforward. Technology may help students improve their English skills by customizing their learning approach via mobile learning, online games, YouTube, video, and so on.

However, several school-related difficulties have arisen since Covid-19. Due to the current conditions, lecturers have a problematic dilemma when moving to online teaching techniques. This unanticipated shift in teaching-learning methodology not only alters the English Language Teaching (ELT) situation but also necessitates lecturers teaching while often monitoring students progress. In response to the continuing worldwide epidemic, new normal norms have been formed in various areas, including education, via the reopening of school activities. The new normal education compels us to adapt learning models to the present digitalbased circumstances, necessitating schools to mix classroom learning with e-learning or hybrid learning. The term "hybrid" refers to a mix of direct meeting and technology integration that must be applied directly to the teaching and learning methodologies used by students and lecturers. Hybrid learning highlights the need for conventional learning processes and the importance of revamping learning models using technology. Although the blend of face-to-face and online learning (hybrid) is recognized as an alternative learning approach in the new normal phase, its implementation does not always go as quickly as predicted.

[7] states hybrid learning comprises self-directed activities and a blend of traditional classroom and computer-assisted learning. Most hybrid models in education fall into one of four categories: flex, a la carte, rotation, and enriched virtual [6]. The first is the flex model, which refers to courses in which the online component becomes the focal point of students learning. The second option is a la carte, which allows students to choose courses to complete online with an online instructor of record to supplement their existing face-to-face classes. The rotation model follows, which depicts the students twisting between learning modes, with at least one of the modalities being in an online mode. The last is enriched virtual, in which students can have face-to-face learning with the teacher, and the remainder is primarily done online. Combining two complementary learning methods, traditional and online, maximises learning outcomes. Hybrid learning is a method that combines two methods, such as online learning and face-to-face learning [8].

In this research, the researcher found the connection on how the lecturers both universities, Universitas Muhammadiyah Makassar and SamSIFL Higher Education, perceive hybrid learning model and how they put their perception of hybrid learning model into the classroom practice in post-pandemic education. This research adopted case study design and uses atlas. The participants of this study were three lecturers of both universities, and they were categorized into two types of lecturers those are highly concerned of hybrid learning and lowly concerned of hybrid learning.

# 2. LITERATURE REVIEW

# 2.1. Hybrid learning approaches

As [9] defines blended learning or hybrid learning, hereinafter referred to as hybrid learning, it is a combination of learning from two historically separate learning models, it is a combination of face-to-face learning model and online learning model. Thus, the notion of hybrid learning is sometimes used interchangeably with blended learning, providing students with two distinct settings: online and offline. The terms hybrid learning and blended learning are used interchangeably; however, they relate to the same notion. Hybrid learning is defined as a technique of teaching at distance that combines technology with conventional education.

In contrast, blended learning is defined as a combination of old and modern pedagogical best practices, such as online tutorials or other technologies in pedagogy. The notion of hybrid learning is more than just

combining online and face-to-face learning; it focuses on maximizing learning goals by using the right learning technology to match the right learning to the right person at the right moment. The reconceptualization and restructuring of a course or program for delivery in a combined environment is an example of hybrid learning. There is no one formula for creating blended courses instead, hybrid learning designs vary greatly depending on the nature of the course material, the audience or students, the course objectives, the teacher, and the available technology. For example, hybrid simulation provides students with the chance to practice technical and non-technical skills in a realistic setting. [10] interprets perception as man's primary form of cognitive contact with the world around him. As. Perception is a complicated and dynamic process that creates our worldview. It goes through several stages, from interpretation experience, and is heavily influenced by personal differences, expectations, and cultural variables. By exploring real-life examples, we can observe how perception varies from person to person and how it can significantly impact our daily lives.

There are two ways to define implementation. First, implementation results in activities, actions, or the existence of a systematic mechanism; implementation is more than just an activity; it is an activity that is planned and structured to meet the aims of the activity. Second, implementation refers to the execution or application of any plan, method, design, idea, model, specification, standard, or policy to achieve a goal. Thus, implementation, coventionally thought of as what happens after a decision has been reached concerning organizational action, is crucial to organizational change and effectiveness [11].

Other researchers agreed that university-level research on students perceptions of hybrid learning based on [12] PST (Pedagogy, Social Interaction, and Technology) model of ICT integration is uncommon. Previous researchers focused primarily on how students evaluated hybrid learning in general without considering these factors. However, asserted that technological design serves as a foundation for pedagogical and social design are recognized as the most important factors determining learning effectiveness.

### 3. RESEARCH METHOD

# 3.1. Research Design and Instrument

This study used a qualitative method with a case study as a research design. The case study approach was selected because it allows for an in-depth exploration of specific phenomena within real-world contexts. Compared to survey-based methods, which may provide broader but less detailed insights, this approach ensures a richer understanding of lecturers perceptions and practices. Moreover, the use of atlas.ti9 for data analysis enables systematic and rigorous handling of qualitative data, ensuring reliability. The focus on class-room observations adds practical relevance, demonstrating how theoretical perceptions translate into actionable teaching strategies. The case study investigated a current phenomenon in a real-world setting, and the research should be detailed, complicated, and functional.

Semi-structured interviews and questionnaire were used to collect data. The researchers collected data from the interviews, which were performed via Zoom meetings for approximately 10 to 15 minutes for each participant. Then, to simplify the spreading of the questionnaire, the approach begins by gathering data from the questionnaire provided to the participants using a Google Form. The questionnaire was conducted online using Google Forms to collect data through open-ended and closed-ended questionnaires. Following data collection, the researchers divide data analysis into two parts. The information gleaned from the interview questions and the questionnaires, all the data were analysed and described through atlas.ti9 to determine the data and to display the data of how the lectures both universities perceive hybrid learning model and how they put their perception into the classroom practice.

# 3.2. Setting and Participants

Three lecturers from both universities, Muhammadiyah University of Makassar and SamSIFL Higher Education, took part in this study. In selecting research participants, researchers use purposeful sampling to examine those who have a detailed understanding of a certain issue through their experience. Purposive sampling is a sampling strategy in which samples are chosen to accurately represent the type of criterion. As a result, volunteers are purposefully picked to meet the criteria of the research study.

# 4. RESULT AND DISCUSSION

# 4.1. Focus on Hybrid Learning

The lecturers at both universities were categorised according to their positive attitudes towards the hybrid learning model. The categorisation was established based on their responses during the interviews and observations of their classroom practices. Throughout the interviews, the lecturers were questioned about how they perceived the hybrid learning model, including its benefits and challenges. In the observation, the notes were made based on how lecturers at both universities put their perceptions into the classroom practices. Based on the acquired data, all lecturers were categorised as highly concerned of hybrid learning and lowly concerned of hybrid learning. These categories align with the research objective of understanding the diverse attitudes and practices of lecturers in hybrid learning. For instance, lecturers classified as 'highly concerned' demonstrated innovative teaching strategies that effectively integrated online and offline components, addressing the objective of identifying best practices. On the other hand, the 'lowly concerned' group highlighted critical challenges, such as infrastructure limitations, which align with the objective of identifying barriers to hybrid learning implementation.

Table 1. Summary of Farticipants (An names are pseudonyms)			
Name	Age	Educational Background	Country
Alexis	38-45	Ph.D.	Uzbekistan
Izel	31-37	Magister	Uzbekistan
Mia	31-37	Magister	Uzbekistan
Nameera	38-45	Ph.D.	Indonesia
Shanti	31-37	Magister	Indonesia
Zea	38-45	Ph.D.	Indonesia

Table 1 Summers of Participants (All names are resudenzing)

Four lecturers, two Uzbekistan Lecturers and two Indonesian lecturers, see Table 1, categorised as highly concerned of hybrid learning view the model as a combination of two different methods and a flexible learning model. Nameera stated in the interview that:

Hybrid learning is a complex learning model because this model combines 2 methods, online and offline learning so that the learning process can be flexible.

In line with Nameera, Alexis believes hybrid learning combines teacher instruction and technology.

Hybrid learning is a learning model that combines teacher's instruction with multimedia or technology in the classroom.

Furthermore, Shanti clarified hybrid learning is where several students attend in person in the classroom while others attend virtually.

Hybrid learning, as I understand it, is a flexible teaching method where some students participate in-person while others join virtually from home. An example is when the teacher/lecturer teaches a class and asks half of the students to come to the class face to face, then also making an online meeting with the other students using Zoom/google meet.

These views from Nameera, Alexis and Shanti, also described by [13] as the new 'hybrid learning' methodology, combine synchronous online learning, facilitated by technologies such as Zoom, Cisco Webex, Google Classroom, and Panopto, with traditional lectures, regular webinars, innovative performance projects, and conventional e-learning. In addition [14] Hybrid learning spaces are developed to blur the borderline between traditional classrooms and e-learning platforms, asynchronous and synchronous learning to offer all options available for learners. Thus, hybrid learning is an approach to education that combines traditional classroom instruction with online learning activities to provide flexibility to the students in Figure 1.



Figure 1. Definition of Hybrid Learning

Reflects on the possibilities accessible to students in the context of learning. The participants expressed an extent of satisfaction with the implementation of a hybrid learning approach. For instance, Shanti, Nameera, and Izel highlighted the adaptability of the present in acquiring the contents inside the classroom.

In my opinion, the benefit of this hybrid learning is it is convenient and easier to the students in joining the class. The students will not be worried about the attendance list, and the students who have the privilege to join the class face to face can also experience the excitement of joining the offline class.(Shanti)

I think it's flexibility, the students can study anywhere & anytime. (Nameera)

Learning activities might be undertaken at any place and at all times. (Izel)

Due to the student's presence in the classroom [5] claimed hybrid learning environments it is generally viewed as both engaging and relevant due to its high level of flexibility. [3] asserted learning will not be limited by space and time because learning can be done anywhere, not necessarily in the classroom.

Another advantageous aspect of implementing a hybrid learning model in the classroom, as stated by Izel and Alexis is the students engagement and digital literacy, as described below.

Hybrid learning is an interactive learning model; it might assist teachers in teaching more effectively, and students will be more engaged in learning (Izel)

# It will gain rich attention from the students. They are engaged to study. It will also increase digital literacy (Alexis)

Identical thought was similarly conveyed by [5] above and beyond the general predictive competences (ie, motivation and engagement), digital literacy is shown specifically another competence predicting e-learner satisfaction. Many studies indicate that technological knowledge, especially in the aspect of digital literacy, is an important factor to e-learning experience. Besides the students engagement and increased digital literacy, the lowering of expense is also one of the advantages of implementing hybrid learning in the classroom.

## It will also reduce the cost, I mean no need to use textbooks or papers. (Nameera)

Related to Nameera viewpoint [15] stated since hybrid learning also has a face-to-face component, some course materials can be simultaneously produced for both face-to-face and Web-based instruction in order to reduce the cost, such as, handouts and lecture notes that are based upon PowerPoint presentations [16]. Course materials and course documents can be posted on the course Web site to allow both modes of students to download and print these documents [17].



Figure 2. Advantages of Hybrid Learning

The successful execution of the hybrid learning model in the classroom mostly relies on the quality of the internet connection since the dependability of internet access has emerged as a significant challenge in the Figure 2. [3] stated even at home, the learning process can still take place as long as a good internet connection is available. Furthermore [18] stated despite the many advantages that BL offers, it also comes with several challenges, one of the challenges is infrastructure issues such as internet-related problems [19].

There is also a limited number of facilities, such as the instability of internet connection.(Izel)

Perhaps only connection, sometimes I got trouble with my connection. (Nameera)

it can be inconvenient sometimes if connection is bad and the students who were joining the class via google meet or zoom cannot fully catch the explanation. (Shanti)

Refers to Izel, Nameera and Shanti, internet connection is a crucial factor in implementing hybrid learning in the classroom. [20] agreed technology itself is a crucial factor: a bad connection or even failing to connect can be frustrating for all users. Furthermore [6] claimed that due the the advantages of hybrid learning 29 respondents of their research participants mentioned "technical problems, failures in the internet and programs, inconveniences of learning platforms and their quality." [21] also claimed that there are several common problems students face with blended learning, such as difficulty accessing the Internet. It can be assumed that a stable connection to the internet is a critical determinant of the effectiveness of the hybrid learning paradigm in classroom practice [22].

Two lecturers see Table 1, one from Indonesia and the other from Uzbekistan, were classified as lowly concerned about hybrid learning since they view it as an inflexible learning model for the post-pandemic or current situation [23].

I think it's not very suitable to be implemented, because there are no more cases of Covid 19 and also for me personally it will be easier to explaining the material directly face to face and the students will completely understand. (Zea)

*I think Hybrid Learning Model is not suitable to be applied nowadays because the development of hybrid education is much better for distance learning. (Mia)* 

Evidently, Zea claimed that hybrid learning is not effective for current classroom practice since there are no further situations of COVID-19. In addition, Mia agreed that the hybrid learning model is not applicable to the present-day context. In contradiction to [6] founded that many of their participants supports the idea of mixed learning in the future since students perceived an interactive experience with hybrid learning positively. They were constantly communicating with one another and with the teacher, discussing interesting topics, learning new information and gaining practical skills. Feedback was the primary component of formative assessment. It contributed to student motivation by allowing them to exercise self-control and self-analysis of the results obtained during training. [3] also believe hybrid learning needs to be supported in today's education world. Furthermore, these perspectives of hybrid learning being less effective are distinct from those of participants who believe that the hybrid learning model continues to be relevant in modern educational environments.

Yes, I believe so, the students will gain a better performance and experience in learning. They can gain more resources from the internet when they are studying in the classroom. The hybrid learning model is a big step in making education easier to access, interesting, and relevant to the requirements of today's students. (Alexis)

We cannot deny the fact that the growth of technology and globalization, as well as the very accessible and fast exchange of knowledge, are the primary reasons why hybrid learning is still relevant today. (Izel)

because we are in 4.0 era where technology is needed to be part of learning process, if it's not, then the learning process would be boring. (Nameera)

Yeah, definitely!!! it is very suitable since we're living in this era of information and technology where everything is easier for us the students. This hybrid model is combining the face to face class and technology and it is definitely effective if the implementation is done correctly and the monitoring is great. (Shanti)



Figure 3. The implementation of Hybrid Learning in the present-day

Figure 3 As pointed out in the preceding section, there are two categories of how lecturers perceive hybrid learning today. Two distinct views are founded on whether the hybrid learning model is still suitable for application in the post-pandemic context [24]. Due to the implementation of hybrid learning in classroom practice, both countries, Indonesia and Uzbekistan in Table 1, portray similar and slightly distinctive traits in their adoption of hybrid learning.

The implementation of this method is when the lecturer asked some of the students to come to the campus and join the class, but at the same time they also giving a link to the students that were in their home and asked them to listen carefully and also taking some notes about the topic discussed in the meeting. (Shanti)

Yes, almost all of our courses use a hybrid learning model. Implementation of hybrid learning in class when online mostly uses the Google Meet application, namely by providing material and then dividing into groups and then presenting the results of group work. Lecturers provide explanations and conclusions at the end of learning. This is almost the same as the face-to-face class. It all depends on the type of material being studied. (Zea)

Not at All. [Mia did not implement a hybrid learning model in all her courses 60% independent study and 40% classroom activities. (Mia)

## 5. MANAGERIAL IMPLICATIONS

The shared characteristic of adopting the hybrid learning model is that Zea and Mia do not use it in all their courses. Their determination is contingent upon the courses or topics they will instruct students on. This is in contrast with the study of [25], who claimed that blended learning (BL) has proven to be efficient in many subject areas. Thus, the widespread adoption of technology-based learning is determined not by the content to be taught but by the experience in ICT skills. Additionally, [18] stated that both teachers and students from different domains might lack ICT skills, which can negatively influence their adoption of BL [26]. According to Mia, the current hybrid learning model adopted in Uzbekistan is 60% independent study and 40% classroom activities[27]. For the 60% independent study, the students accessed the Moodle system and were required to do self-study. According to [28] some of the teachers conceived a third educational agent after the teacher and the student. For some of them (34%), technology is a new agent because by it, they get connected, they are able to communicate, they can search for information, they find the structure of the course, materials, and other aspects of the Educational Technological Platform named Moodle [29].

Compared to Indonesia, according to the university policy that requires first- and second-semester students to attend online lectures, certain students living in nearby cities and districts may still attend face-to-face lectures for certain courses [30]. Students living outside the island may attend online lectures [31]. In classroom practice, two distinct methods of hybrid learning exist based on the semester course of study established by the lecturer in collaboration with the teaching team about the approach, strategy, technique, or model to be used in the course [32]. Shanti described the students who live near the university joining face-to-face courses while the students who live outside the city may join online courses [33]. Meanwhile, Zea confirmed that all students, whether they live in the city or outside, attend online classes, with the lecturer applying Google Meet to present the course of study [34]. According to [35] some teachers may have employed an asynchronous teaching modality where they used online platforms like Moodle and Google Classroom [36].

### 6. CONCLUSION

It is obvious from this research that there is connection between the lecturers perception of hybrid learning and how they put their perception into the classroom practice. This study reveals substantial differences in the way lecturers put their perception of hybrid learning into the classroom. The differences are categorized into two types of lectures, namely highly concerned of hybrid learning and lowly concerned of hybrid learning. It is identifiable that the more lecturers perceive positive attitude of hybrid learning model the more lecturers well-adopted of hybrid learning model into the classroom practice. It is recognizable that the more lecturers perceive positive attitude of hybrid learning model into the classroom practice. It is recognizable that the more lecturers perceive positive attitude of hybrid learning model into the classroom practice. This study offers beneficial insights for higher education stakeholders to improve the quality of hybrid learning in university settings. The findings have significant implications for designing adaptive educational policies that enhance equity and access in hybrid learning environments. By addressing infrastructural challenges and emphasizing digital literacy, this study provides actionable recommendations for policymakers and educators to optimize hybrid learning implementation. These insights are particularly valuable for preparing students with the digital competencies needed in the 21st-century workforce, aligning education with the demands of Industry 4.0.

# 7. DECLARATIONS

# 7.1. About Authors

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### 7.2. Author Contributions

Conceptualization: EP; Methodology: FA; Software: AM; Validation: EP and FA; Formal Analysis: FA and AM; Investigation: EP; Resources: FA; Data Curation: AM; Writing Original Draft Preparation: FA and EP; Writing Review and Editing: EP and MA; Visualization: MA; All authors, EP, FA, AM, have read and agreed to the published version of the manuscript.

## 7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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