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REVOLUTIONIZING EDUCATION: UNVEILING THE GAME-CHANGING HYBRID LEARNING STRATEGIES OF FUTURE EDUCATORS

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ABSTRACT

This study investigated the challenges prospective professional teachers face in implementing hybrid learning in their future classrooms. It explores the potential of hybrid learning, which combines online and in-person instruction, to revolutionize traditional education. The research involved 21 students from a private university in Surabaya, Indonesia, who participated in the Teacher Professional Development program. Data were collected through questionnaires and interviews to gain insights into the participants' experiences and perspectives. A comprehensive analysis using both quantitative (descriptive statistics and inferential analysis) and qualitative (thematic analysis) methods identified key strategies for effectively implementing and carrying out hybrid learning. The findings highlight the importance of enhancing students' and teachers' learning competence, explaining the course structure, properly preparing and delivering lessons, and obtaining support from various stakeholders. Additionally, the study outlines the responsibilities of teachers in designing and delivering best-practice hybrid courses and emphasizes the essential support and policy obligations of educational institutions. This study fills a significant gap in implementing hybrid learning in education, providing valuable insights for future educational practices.

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INTRODUCTION

The convergence of intellectual, technical, and social factors has caused significant changes in the traditional educational landscape. It raises considerable concerns about the quality of the learning process (Bianchini et al., 2022). Web-based communication technologies have driven a paradigm shift in education, forcing online learning into conventional courses as an essential and indispensable element. It has led to the development of hybrid learning (Ahuja et al., 2023). Hybrid learning, which integrates online and face-to-face teaching, provides teachers with various resources, tools, and opportunities to actively engage students in a substantive and collaborative educational journey (Eslit, 2023)

Teachers can foster a more individualized and collaborative learning atmosphere by integrating resources and tools that allow students to progress at their own pace while receiving constructive criticism (Liu et al., 2023). Additionally, hybrid learning allows instructors to effectively combine traditional teaching methods with digital tools, fostering an individualized approach that meets the needs of each student (Gamage et al., 2022). This methodology dispels the notion of universally applicable education and offers differentiated learning through tangible and digital engagement among learners, instructors, and fellow students (Manciaracina, 2022).

Implementing hybrid learning requires more than just a combination of online and face-to-face teaching. It requires the calculated integration of appropriate learning technologies to optimize academic achievement (Singh et al., 2021). Therefore, in order to effectively integrate this learning model into their classrooms, aspiring professional educators must acquire the necessary knowledge and abilities to do so, understand the advantages and disadvantages of conventional learning and online learning, and integrate the two in a way that maximizes educational potential (Falloon, 2020).

Teachers must follow a structured approach to ensure the success of hybrid learning models (Raes, 2022). Therefore, UNESCO proposes a four-step structured approach to hybrid learning: understanding and envisioning, deciding and designing, enabling and implementing, and monitoring and adjusting. By carefully considering these steps and leveraging the advantages of face-to-face and online learning, schools can optimize learning objectives and match the right learning technology for each student and situation (Unesco, 2020).

Moreover, schools should prioritize equitable access to digital technologies, providing necessary resources such as services and internet access to ensure all students can fully participate in hybrid learning (Raes et al., 2020). Additionally, schools should offer ongoing professional development opportunities to support teachers in adapting to the changing needs of students and the hybrid learning environment (Mumford & Dikilitaş, 2020).

The system must be configured to integrate online and in-person/face-to-face instruction to support hybrid learning (Rosak-Szyrocka et al., 2024). A framework and

checklist were provided to help build the implementation of a robust hybrid learning strategy. Figure 1 illustrates the interactive process with the four steps mentioned above:

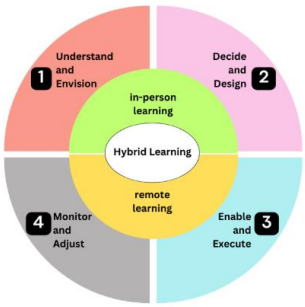

Fig. 1. Hybrid learning model and four-step approach involved

Ultimately, it is critical to understand prospective professional educators' difficulties when attempting to implement hybrid learning (Bennett et al., 2020). Moreover, this study examines the obstacles that pre-service educators encounter when integrating the hybrid instructional approach into their classrooms. The objective is to discern obstacles, including technical complications or opposition from instructors, that could impede the efficient implementation of the hybrid learning approach. After identifying these obstacles, the research will concentrate on devising strategies that effectively overcome them and enable the implementation of the hybrid learning model.

The investigation was predicated on the following questions: What challenges are encountered during synchronous hybrid learning? In the opinion of prospective professional teachers, how can hybrid learning be improved to increase its efficacy? This study intends to identify knowledge deficits that require attention by answering these review questions and investigating current research. A systematic literature review was conducted to answer the questions and identify factors that contribute to the efficacy of synchronous hybrid learning, including student engagement, teaching practices, and student outcomes.

RESEARCH METHOD

This study employed a mixed-methods design. It was conducted at a private university in Surabaya. Quantitative data were acquired via online surveys, whereas qualitative data were gathered through interviews with prospective professional instructors. The survey comprised 18 items that were rated on a five-point Likert scale: five indicated the highest level of agreement with the statements; one indicated "very poor," two "poor," three "fair," four "good," and five "very good." Furthermore, the interview questions were modified to center on the expectations and experiences of professional teacher candidates regarding the hybrid learning process, which consists of four distinct steps. The integration of qualitative and quantitative data collection techniques enables an in-depth examination of the intricacies and subtleties of the experiences of prospective professional teachers. It offers an impartial means of assessing their efficacy.

Participants and the context

This study involved 21 students, consisting of three men and 18 women. The participants were selected from various universities in Indonesia. They have earned bachelor's degrees, and some are still pursuing master's degrees. In addition, they joined the Teacher Professional Education Program, Pendidikan Profesi Guru (PPG), at a private university in Surabaya to become professional teachers shortly. Participants were of various ages, backgrounds, and levels of educational experience.

Data Collection

Data were collected using questionnaires and interviews. The questionnaire contained questions about the steps involved in hybrid learning and the participants' attitudes and opinions. The questionnaires were distributed online using the Zoho Survey platform. It was distributed to the participants for two weeks, and twenty-one responses were gathered. Further elaboration was sought through Zoom interviews after the analysis of the questionnaire. Three people were selected for the interviews based on their questionnaire responses and commitment to voluntary participation. Interviews were conducted to understand the participants' experiences and viewpoints better.

Data Analysis

The collected data were analyzed using both quantitative and qualitative approaches. Qualitative analysis was used to gain insight into the participants' attitudes and opinions, while quantitative data analysis was used to examine the numerical responses obtained from the questionnaire. Descriptive statistics, such as percentages and frequencies, were used to summarize the survey responses. In contrast, inferential analysis was used to verify the hypotheses and ascertain significant relationships between the variables (Byrne, 2022). Qualitative analysis identified common themes and patterns in participants' perceptions and experiences through the categorization and unstructured categorization of responses. Content analysis was also conducted to examine the qualitative data collected through the interviews. Examination of the participants' responses yielded several significant themes and patterns, which provided valuable insights into their viewpoints and experiences regarding the subject matter under investigation (Elo et al., 2014).

RESULT AND DISCUSSION

This chapter presents the discussion and findings of the surveys and interviews conducted in this study. By integrating quantitative and qualitative data, this presentation offers a holistic perspective on the subject at hand. Furthermore, to respond to the initial question regarding the difficulties associated with implementing hybrid learning, the researcher used a survey of 18 statements derived from a four-step methodology for hybrid learning. Tables 1 to 4 present the survey results. Additionally, to investigate potential strategies for improving the efficacy of hybrid learning, the researcher conducted comprehensive interviews with four participants to answer the second question. The interview results are presented after the quantitative results, providing valuable insights into

participants' experiences, recommendations for improving hybrid learning, and approaches to overcoming common barriers.

Table 1. The results of step 1 Understand and Envision: Assess the needs and capabilities

No	Survei Items	Percentages					Numbers				
		1	2	3	4	5	1	2	3	4	5
1	able to explain the hybrid learning strategy's guiding principles.	0	4.8	42.9	47.6	4.8	0	1	9	10	1
2	able to ascertain the pupils' needs for face-to-face and online instruction.	0	9.5	38.1	47.6	4.8	0	2	8	10	1
3	able to analyze the usability and efficiency of the accessible remote learning choices.	4.76	0	9.5	71.4	14.3	1	0	2	15	3
4	able to verify the skill of the teacher (e.g., ability to return to school or teach remotely)	0	4.8	23.8	57.1	14.2	0	1	5	12	3
5	capable of evaluating the available space as well as the adjustability of the support levers.	0	4.7	23.8	57.1	14.3	0	1	5	12	3

The table shows that most respondents (71.4%) could analyze the usability and effectiveness of accessible remote learning choices. However, only 47.6% of respondents could explain the guiding principles of the hybrid learning strategy, and only 42.9% could ascertain pupils' needs for face-to-face and online instruction.

Thus, the survey results suggest a need for further training and support for education stakeholders in Indonesia to implement a hybrid learning strategy effectively.

> **(St.1)** ... online and offline hybrid was conducted at once. So, for example, we have a class, so there are participants who attend the class offline and those who attend online, but they are still connected in the classroom. However, why do many still answer on a scale of four? This may be because we have not implemented it yet, so to make it happen, we still need to think a lot; that is, sir.

Participants' responses demonstrated their understanding of hybrid learning, which combines traditional in-person instruction with online learning. This approach offers learners flexibility and convenience while preserving the advantages of face-to-face interaction. Therefore, during this phase, the participant did not perceive the understanding and envisioning of the hybrid learning model as challenging. Nevertheless, they conceded that many aspiring educators needed to be more open to articulating their understanding and conceptualizing a hybrid learning model because of their limited familiarity with it and practical implementation experience.

Based on these findings, the researcher concluded that teacher preparation programs should provide opportunities for aspiring educators to acquire practical knowledge and experience with composite learning models in authentic environments. This enhances their

self-assurance and proficiency in applying these models in subsequent instructional settings. This discovery is consistent with the findings of Haleem et al., (2022) and Heilporn et al., (2021), who emphasize the significance of future educators guaranteeing equal opportunities for the achievement of every student. Furthermore, this aligns with the results of Manca & Delfino, (2021) and Mathrani et al., (2022). This emphasizes guiding principles for equitable access to essential digital technologies to facilitate successful online education.

Table 2. The results of step 2 Decide and Design: Determine the hybrid learning model

No	Survei Items	Percentages					Numbers				
		1	2	3	4	5	1	2	3	4	5
1	able to decide whether to distribute capacity equally or to give different groups a higher priority.	4.8	0	38.1	42.9	14.9	1	0	8	9	3
2	able to decide which grades will receive in-person attention.	0	0	38.1	42.9	19	0	0	8	9	4
3	able to decide, regardless of grade, if it is appropriate to reintroduce some individuals that are vulnerable.	0	4.8	38.1	47.6	9.5	0	1	8	10	2
4	able to define hybrid model combinations within the framework of the educational system.	0	0	23.8	66.8	9.5	0	0	5	14	2
5	able to decide on the optimal strategy for introducing hybrid classes to additional students.	4.8	4.8	28.8	47.6	14.2	1	1	6	10	3

The table shows that while the majority of participants (66.67%) expressed a "good" or "fair" level of confidence in deciding and designing hybrid learning models, a smaller proportion rated themselves as "excellent." This discrepancy raises intriguing questions about the potential misalignment between self-perception and actual performance and the evolving standards of excellence in this domain.

Furthermore, the researcher conducted interviews with students to gather additional insights into the findings from the quantitative data regarding students' abilities to decide and design the hybrid learning model. The responses are as follows:

> **(St.2)** The problem is that it is easy to implement if we want to discuss levels in the middle schools, elementary schools, junior high schools, and senior high schools in an urban area.. ... but if you look at it, for example, in my area in Madura, it isn't easy to do something like that, even in high school.

The participants expressed that implementing the hybrid learning model is relatively easier to discuss and apply in urban areas at middle, elementary, junior, and senior high school

levels. However, the participants mentioned that it was challenging to implement such a model in their area in Madura, even in high school.

> **(St.1)** ... elementary school children cannot be arranged neatly. Some students talk about this. Sometimes, they do not connect or have such activities. Therefore, they focus less on elementary schools. If you go to junior high school at the senior high school level and above, it will be more organized.

Another participant highlighted that organizing hybrid learning activities for elementary school children can be more challenging, as they may have difficulties connecting or participating in such activities. The participants suggested that a more organized approach could be implemented at the junior and senior high school levels.

The responses suggest prospective teachers believe junior high and senior high school students could benefit from a more rigorous, structured academic setting. Such an environment better equips them to confront the rigors of advanced education. Nevertheless, it is critical to note that this does not mean ignoring the significance of fostering a constructive and encouraging classroom environment that cultivates students' emotional welfare and social growth.

Therefore, the interview results provided additional insights into students' ability to make decisions and develop hybrid learning models. Based on the interview findings, future professional educators should acknowledge the difficulties associated with institutionalizing hybrid learning in specific contexts and grade levels. They believed that junior and senior high school students are in a more structured and demanding academic environment. In contrast, they doubt implementing hybrid learning in elementary schools.

Furthermore, regarding the comprehensive findings, it is essential to mention that although most respondents indicated confidence in their ability to make decisions and develop hybrid learning models, a smaller percentage rated their performance as "excellent." This observation triggered thought-provoking questions regarding the possible differences between self-perception and individual performance. Moreover, this underscores the dynamic nature of standards of excellence in this domain.

Furthermore, although hybrid learning models can potentially increase student engagement and interaction, their efficacy in achieving the desired learning outcomes depends on the instructor's careful preparation and strategic planning. According to the findings of Mumford & Dikilitaş, (2020); Raes et al., (2020); Singh et al., (2021), teachers who have a comprehensive understanding of these concepts will be better equipped to design hybrid learning plans that ensure all students have access to and benefit from them. Moreover, this is in line with Unesco, (2020) recommendations, which emphasize the importance of educators consistently upgrading their expertise and competencies to keep up with rapid advances in technology and pedagogical methods.

Table 3. The results of step 2 Decide and Design: Determine the hybrid learning model

No	Survei Items	Percentages					Numbers				
		1	2	3	4	5	1	2	3	4	5
1	able to decide which subjects should be studied remotely and which should be prioritized for face-to-face learning.	0	0	38.1	52.4	9.5	0	0	8	11	2
2	able to choose which educational activities should take precedence over in-person training.	0	4.8	33.3	52.4	9.5	0	1	7	11	2
3	able to determine the appropriate subject and age distribution for the hybrid model.	0	4.8	57.1	33.3	4.8	0	1	12	7	1
4	able to organize a shift system so that students can participate in in-person classes at various times.	4.8	0	33.3	47.6	14.3	1	0	7	10	3
5	able to explain the instructor distribution model for the different learning methodologies.	4.8	0	33.3	52.4	9.5	1	0	7	11	2
6	able to close capability gaps and deliver high-quality hybrid learning.	0	9.5	38.1	42.9	9.5	0	2	8	9	2

The table shows positive progress in operationalizing a hybrid learning model across grade levels. Most participants felt capable of all process steps, including prioritizing subjects, choosing activities, distributing subjects and ages, and organizing in-person shifts. Steps 1-3 received the highest confidence, with over 90% of the participants feeling at least somewhat capable. Step 6, which focused on quality and gap closure, had the most varied responses, with 38.1% fully capable, 38.1% somewhat capable, and 9.5% not capable. Thus, it suggests broad feasibility for hybrid learning but highlights the need for additional support in closing capability gaps and ensuring high-quality delivery, particularly in Step 6.

Based on the results of the questionnaire, the researcher interviewed the students to gain insights into their feedback and potential solutions for the identified issues. These qualitative data offer valuable insights to enhance students' learning experiences. The interviews focused on determining the appropriate subjects and the age distribution for the hybrid model. The interview responses are summarized as follows:

> **(St.2)** The goal is to support learning, but there is learning that should not be online. Or what? It is enough to implement it in that class, for example, a sports subject or something like that. Maybe for the hybrid, we want to know what theory

> or physical activity is like in other areas, but we cannot have a direct experience. Thus, for things like that, it is better to do them offline, meaning bringing in directly or something like that, but for learning English, history, or geography, that kind of thing might be done hybrid.

The participant mentioned that the goal was to support learning, but certain subjects, such as sports, may not be suitable for online learning. P1 suggested that these subjects be implemented in traditional classrooms. However, subjects such as English, history, and geography can be effectively taught in a hybrid manner.

> **(St.3)** There is learning that must be prioritized; what should it be? The point is that it should be face-to-face as much as possible, but effective learning can also happen online. For example, as mentioned earlier, the sports subject.. ... can still be done, for example, ... by sending videos of movement practices or something like that. However, it still has to be, what is it, compacted so that it is carefully considered where the ages can be divided; that is, how it is, sir.

Another participant emphasized that priority should be given to face-to-face learning whenever possible. However, some subjects, such as sports, can still be taught effectively online by sending videos of movement practices. P2 recommended carefully considering age groups when dividing the subjects into hybrid learning groups.

Overall, the prospective professional teachers demonstrated a good understanding of the subject despite the complexity of the questions. Areas for improvement were identified, particularly regarding the practical application of the theoretical concepts. However, more understanding is needed to implement the hybrid learning method at different grade levels. This can be achieved through teacher-training programs, workshops, and ongoing support and feedback from administrators and peers.

According to Gamage et al., (2022); Hapke et al., (2021); and Raes, (2022), teachers have the flexibility to choose and develop a hybrid learning model that best suits students' needs. This approach creates a more personalized learning process by combining the advantages of online and in-person interactions. It is in line with Falloon, (2020), who emphasized the significance of informed decision-making by considering factors such as student needs, instructor availability, and resource allocation. Consequently, hybrid learning can be implemented across all grade levels. He also highlighted the importance of flexibility in hybrid learning models, which enables tailored learning experiences to accommodate individual student requirements.

Table 3. The results of step 2 Decide and Design: Determine the hybrid learning model

No	Survei Items	Percentages					Numbers				
		1	2	3	4	5	1	2	3	4	5
1	able to keep track of important hybrid learning process and result metrics.	4.8	4.8	33.3	38.1	19.0	1	1	7	8	4
2	able to create a system for change so that the hybrid learning technique can be continuously adjusted to meet changing needs.	4.8	4.8	38.1	42.9	9.5	1	1	8	9	2

Table 3 shows that prospective professional teachers demonstrate high confidence in evaluating hybrid learning, as evidenced by 81% reporting comfort in tracking key metrics and establishing improvement systems. However, there remains a subset of educators, including 71.4% (15 participants), who express anxiety, doubts, and lack full confidence. It is important to understand if specific aspects of evaluation contribute to this unease and if certain groups require targeted support.

To gather additional information, the researchers interviewed selected participants. These interviews provided valuable insights into participants' experiences and perspectives, enriching the researchers' understanding of the topic. The qualitative data obtained from the interviews were analyzed alongside the quantitative data collected through surveys and experiments. In Step 4, the interview questions focused on monitoring and adjusting the progress of hybrid learning. The interview responses are summarized as follows:

(St.4)...we cannot immediately decide whether we want to go hybrid. So, we have to follow the same schedule prepared before the school year starts.

The participants highlighted the importance of not making immediate decisions on adopting hybrid learning and suggested following the pre-planned school schedule.

(St.1) if you want to implement it, you have to return it to the school curriculum or a system that exists in that school. So, do not let us selfishly carry it out ourselves without notification, prior delivery, or socialization at school.

Another participant emphasized the need to align the implementation of hybrid learning with the existing school curriculum and ensure proper communication, notification, and socialization within the school community.

Particularly in the educational context, these responses demonstrate the significance of collaboration and effective communication with diverse stakeholders. These findings are consistent with those of Heilporn et al., (2021), who emphasized the importance of educators cultivating constructive and supportive connections with their pupils via efficient communication. Educators are empowered by their practical communication abilities by establishing a supportive environment, encouraging collaboration, and promoting student success. A similar conclusion was drawn by Heilporn et al., (2021); Mumford & Dikilitaş,

(2020); and Singh et al., (2021) regarding the necessity of teacher collaboration and cooperation to implement hybrid learning successfully. Collaborative efforts among educators can effectively tackle the challenges associated with hybrid learning and elevate student outcomes by exchanging best practices and identifying areas that mandate development.

CONCLUSION

By establishing a hybrid learning model that meets the requirements of their students, teachers can provide students with a personalized and engaging educational experience. In contrast, they should also be able to allocate classroom time and determine group priorities. A comprehensive literature review was undertaken to obtain insights into instructional strategies, student engagement, and learning outcomes in synchronous hybrid learning.

The results suggest that teacher preparation programs should offer professional teacher candidates the opportunity to apply and implement hybrid learning models in authentic environments to increase their trust and confidence. Prospective educators are widely recognized for their responsibility to ensure equitable opportunities for the success of every student. Teachers may also find it easier to face challenges associated with hybrid learning if a supportive environment is fostered.

Although this is an essential point, it is critical to recognize possible limitations and biases in participant feedback and to employ a holistic strategy that integrates various data sources and viewpoints. Developing and analyzing student feedback on implementing hybrid learning models requires further investigation. Examining alternative methodologies may provide a more profound understanding of the efficacy of instruction. Moreover, to perpetually improve pedagogical approaches, it is critical to effectively and constructively incorporate student feedback.

REFERENCE

Ahuja, N. J., Kumar, A., & Nayyar, A. (Eds.). (2023). *Sustainable Blended Learning in STEM Education for Students with Additional Needs*. Springer Nature Singapore. https://doi.org/10.1007/978-981-99-3497-3

Bennett, D., Knight, E., & Rowley, J. (2020). The role of hybrid learning spaces in enhancing higher education students' employability. *British Journal of Educational Technology*, *51*(4), 1188–1202. https://doi.org/10.1111/bjet.12931

Bianchini, M., Piuri, V., Das, S., & Shaw, R. N. (Eds.). (2022). *Advanced Computing and Intelligent Technologies: Proceedings of ICACIT 2021* (Vol. 218). Springer Singapore. https://doi.org/10.1007/978-981-16-2164-2

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, *56*(3), 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, *4*(1), 215824401452263. https://doi.org/10.1177/2158244014522633

Eslit, E. R. (2023). *Teacher-Student Interaction in Higher Education Institutions: Hybrid Language Learning in the Post-Pandemic Landscape* [Preprint]. Arts and Humanities. https://doi.org/10.20944/preprints202310.2107.v1

Falloon, G. (2020). From digital literacy to digital competence: The teacher digital competency (TDC) framework. *Educational Technology Research and Development*, *68*(5), 2449–2472. https://doi.org/10.1007/s11423-020-09767-4

Gamage, K. A. A., Gamage, A., & Dehideniya, S. C. P. (2022). Online and Hybrid Teaching and Learning: Enhance Effective Student Engagement and Experience. *Education Sciences*, *12*(10), 651. https://doi.org/10.3390/educsci12100651

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, *3*, 275–285. https://doi.org/10.1016/j.susoc.2022.05.004

Hapke, H., Lee-Post, A., & Dean, T. (2021). 3-IN-1 HYBRID LEARNING ENVIRONMENT. *Marketing Education Review*, *31*(2), 154–161. https://doi.org/10.1080/10528008.2020.1855989

Heilporn, G., Lakhal, S., & Bélisle, M. (2021). An examination of teachers' strategies to foster student engagement in blended learning in higher education. *International Journal of Educational Technology in Higher Education*, *18*(1), 25. https://doi.org/10.1186/s41239-021-00260-3

Liu, M., Ren, Y., Nyagoga, L. M., Stonier, F., Wu, Z., & Yu, L. (2023). Future of education in the era of generative artificial intelligence: Consensus among Chinese scholars on applications of ChatGPT in schools. *Future in Educational Research*, *1*(1), 72–101. https://doi.org/10.1002/fer3.10

Manca, S., & Delfino, M. (2021). Adapting educational practices in emergency remote education: Continuity and change from a student perspective. *British Journal of Educational Technology*, *52*(4), 1394–1413. https://doi.org/10.1111/bjet.13098

Manciaracina, A. (2022). *Designing hybrid learning environments and processes: Interactive communication tools for active learning*. Springer.

Mathrani, A., Sarvesh, T., & Umer, R. (2022). Digital divide framework: Online learning in developing countries during the COVID-19 lockdown. *Globalisation, Societies and Education*, *20*(5), 625–640. https://doi.org/10.1080/14767724.2021.1981253

Mumford, S., & Dikilitaş, K. (2020). Pre-service language teachers reflection development through online interaction in a hybrid learning course. *Computers & Education*, *144*, 103706. https://doi.org/10.1016/j.compedu.2019.103706

Raes, A. (2022). Exploring Student and Teacher Experiences in Hybrid Learning Environments: Does Presence Matter? *Postdigital Science and Education*, *4*(1), 138–159. https://doi.org/10.1007/s42438-021-00274-0

Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: Gaps identified. *Learning Environments Research*, *23*(3), 269–290. https://doi.org/10.1007/s10984-019-09303-z

Rosak-Szyrocka, J., Żywiołek, J., Nayyar, A., & Naved, M. (Eds.). (2024). *The role of sustainability & artificial intelligence in education improvement* (First edition). CRC Press.

Singh, J., Steele, K., & Singh, L. (2021). Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & Post-Pandemic World. *Journal of Educational Technology Systems*, *50*(2), 140–171. https://doi.org/10.1177/00472395211047865

Unesco. (2020). COVID-19 response-hybrid learning: Hybrid learning as a key element in ensuring continued. *Programme and Meeting Document*. https://unesdoc.unesco.org/ark:/48223/pf0000373767?posInSet=3%26queryId=b40003f4-2249-4974-84e4-acb9bc32fcf9