Journal of Digital Educational Technology
2025, 5(1), ep2505
e-ISSN: 2752-5503
https://www.jdet.net/

Research Article

OPEN ACCESS

Hybrid learning in higher education: Considerations for its implementation in course design

Alejandra Álvarez-Chaves [1*], Silvia Saborío-Taylor [1]

[1] Universidad Nacional de Costa Rica, Heredia, COSTA RICA
***Corresponding Author:** alejandra.alvarez.chaves@una.ac.cr

Citation: Álvarez-Chaves, A., & Saborío-Taylor, S. (2025). Hybrid learning in higher education: Considerations for its implementation in course design. *Journal of Digital Educational Technology, 5*(1), ep2505. https://doi.org/10.30935/jdet/15859

ARTICLE INFO

Received: 01 Aug. 2024

Accepted: 08 Jan. 2025

ABSTRACT

Hybrid learning, combining face-to-face and distance instruction through digital technologies, has gained greater prominence in higher education, noted for its flexibility and adaptability. This innovative model fosters student engagement by overcoming the limitations of the traditional classroom and promoting collaborative learning and autonomy. This article presents a methodological guide for planning hybrid environments with a student-centered approach supported by digital technologies. The method is based on a literature review, providing a conceptualization and characterization of hybrid learning. It also outlines a structured guide for a university course under the hybrid model, considering available physical and virtual conditions, the degree of possible hybridization, as well as the development of learning objectives, activity design, instructional material, assessment strategies, and chronogram. The results show the experience from a thematic unit of the course "pedagogical praxis in the university context" at the Universidad Nacional de Costa Rica, which exemplifies this planning by integrating face-to-face and virtual activities, and continuous and formative assessment. In conclusion, understanding the advantages and challenges of hybrid learning is key to developing effective methodologies focused on flexibility and personalization in higher education.

Keywords: hybrid learning, higher education, digital technologies, course design

INTRODUCTION

The relevance of hybrid learning for current and future university education must be understood in the context of its evolution, which has been significantly marked by the pandemic, bringing numerous changes and adaptations worldwide. One of the main actions for post-pandemic educational contexts is linked to strengthening education as a common good, as well as valuing the teaching profession and fostering collaboration among university professors. There is a special emphasis on the use of free and open-source technologies, accessible to both teachers and students (UNESCO, 2020).

In this context, hybrid learning gains relevance as it is considered an active learning methodology. Hybrid education is defined as an educational approach that combines face-to-face and distance instruction, using digital technologies both synchronously and asynchronously. This modality allows for diversifying educational practices by using technology flexibly and adapting time and space to promote effective learning processes (Álvarez et al., 2022).

Hybrid learning models are emerging as an innovation that combines student engagement with sustainability and overcomes the limitations of the traditional classroom (Mejía et al., 2017). Its importance for current and future education rests on the main benefits it provides, such as transcending the learning space, fostering collaborative learning, the role it demands from both teachers and students (with the latter developing autonomous learning processes), as well as the use of various digital educational resources for the teaching and learning process.

This article presents theoretical-practical inputs as a methodological guide for planning hybrid learning environments to make teaching and learning processes more flexible and improved in university contexts. Similarly, it aims for each teacher to take advantage of the functionalities of digital technologies in planning, mediating, and evaluating educational activities to achieve the educational objectives of their discipline from a student-centered learning approach.

METHOD

For the analysis of the implications of implementing hybrid learning in university education, a literature review methodology was employed to generate an implementation proposal. This research method allowed for the search,

synthesis, and evaluation of evidence on this topic. The process involved identifying, selecting, analyzing, and synthesizing relevant studies on the conceptualizations of hybrid learning and its characteristics. The systematic review aimed to deepen understanding of hybrid learning and its application in the university educational context.

Conceptualization of Hybrid Learning

As part of the methodology used, the conceptualization of hybrid learning was conducted. The concept of hybrid learning has multiple definitions. In the past, it has been referred to as mixed learning. However, in the context of the COVID-19 pandemic, this concept was revisited due to the necessity of continuing educational processes worldwide, combining face-to-face and remote work.

In this hybrid learning approach, teachers and students interact in different physical and virtual spaces, facilitated by the vast array of technological tools available today (METICS, 2022). The use of digital teaching resources, virtual environments, programs, and other tools supports teachers in planning these learning environments, both for face-to-face and virtual settings.

However, developing hybrid models in university settings requires the necessary technological infrastructure and teachers have a basic understanding of this learning model and the use of digital technologies for learning. The required knowledge for teachers pertains to didactic planning and the selection and creation of content that is meaningful for students in both face-to-face and remote learning moments.

In current higher education, the hybrid approach, combining both face-to-face and virtual learning, has gained wide acceptance among university teachers. This method facilitates continuous improvement in acquiring competencies and digital educational resources for both students and teachers. It also promotes a clear trend towards openness in education, which is crucial for democratizing the teaching-learning process (Villagra & Cabrera, 2023).

As Salinas et al. (2018) state, the hybrid learning model combines face-to-face systems with computer-mediated instruction, where the use of digital communication and network interaction technologies, in real-time or delayed, define b-learning models. These systems are based on the intersection of these modalities, aiming to leverage the advantages and rich resources of virtual learning and the interaction and synergies generated in face-to-face sessions.

Thus, this conceptualization of hybrid learning is crucial for establishing a common and precise understanding within university environments, allowing for the development of a coherent methodological guide for effective implementation. This clear definition facilitates designing hybrid learning environments that maximize flexibility and improve teaching and learning processes by combining the best of face-to-face and online settings, promoting active participation, collaboration, and a rich, personalized learning experience for university students.

Characterization of the Blended Learning Model

In a context where the integration of technology in higher education is increasingly relevant, characterizing the blended learning model as a method is imperative to understand its potential benefits and the challenges it presents for both educators and students. Therefore, this detailed determination of the blended learning model provides a solid foundation that assists in designing and implementing effective strategies to maximize its effectiveness and promote enriching and meaningful learning experiences.

The main characteristic of this learning model is the combination of virtual and face-to-face elements to achieve learning objectives. Thus, within blended learning, there is a reconceptualization of technology use, viewing it as a means to connect with individuals interested in learning. Therefore, the use of technology is not solely focused on imparting knowledge but positions participants in different roles:

- **Students:** They are at the center of the educational process, playing an active role with the greatest commitment, responsibility, and desire to learn.
- **Teachers:** They mediate learning experiences, utilizing technological possibilities and tools to achieve learning objectives for the courses, grade level, or school cycle they teach (METICS, 2022).

The integration between university professors and students in blended learning involves creating teaching strategies that encompass both synchronous and asynchronous learning environments. This entails considering documentary repositories as complementary tools for study, review, and practice, thereby strengthening didactic planning (Engel & Coll, 2022). A hybrid environment provides a wide range of resources and forms of interaction between teachers and students, facilitating personalized learning and enhancing its effectiveness. The success of these strategies depends not only on the digital technology used but also on the proper design and implementation of teaching and learning activities provided by these technologies (Engel & Coll, 2022).

Therefore, when proposing to hybridize a teaching and learning environment, it is crucial to begin by questioning the added value that digital technologies can bring to the learning processes we aim to promote, as they can and should serve to facilitate, transform, or enhance personalization strategies, not merely reproduce them. Thus, in these models, digital devices become flexible tools for learning, reducing boundaries between physical and virtual environments, as well as between school and non-school environments, thereby achieving integration that forms the basis for the potential of hybrid environments. This potential is manifested in the ability to expand the scope and effectiveness of personalization strategies while enabling teachers to monitor and support the learning process of students both inside and outside the school environment (Engel & Coll, 2022).

Given the pedagogical characteristics described above, it is important to consider how the dimensions of time, space, and interaction provided by the blended learning model facilitate the achievement of learning in different spaces and times. In terms of time, blended learning refers to learning occurring simultaneously as well as at different times. The ubiquity characteristic in these approaches is crucial, as learning can take place at any time and location.

Space is therefore another fundamental characteristic, as in blended learning, education can occur in person (face-to-

Table 1. Preliminary considerations for designing a blended learning course

Face-to-face conditions	Characteristics	Virtual conditions	Characteristics
Flexible spaces	Infrastructure is available for face-to-face sessions with access to technology and internet connection.	Learning management system	An online learning environment is available for accessing the entire course and its materials.
Technological infrastructure	Solid network infrastructure is available to facilitate connectivity and access to virtual learning environments.	Communication tools	Institutional emails, discussion forums, chats, or video conferencing platforms are available to facilitate participant interaction.
Audiovisual resources	Audiovisual equipment, electronic whiteboards, and other devices are available to facilitate content presentation in both physical and virtual spaces.	Digital content	Fully digital didactic materials are available, such as readings, videos, simulations, or interactive exercises that complement face-to-face activities.
Collaborative spaces	Group workspaces are available to allow students to interact and collaborate both in person and through online tools.	Online assessment	Online assessment methods such as quizzes and assignments are available to track student progress.

face) or within the same physical location. Likewise, it can be conducted remotely (people in different physical locations).

Similarly, interaction is linked to the different communication channels through which communication develops one-way, bidirectional, or multidirectional, as well as the type of commitment participants acquire in the development of the class or course: solitary learning without interaction with others, limited participation that may be structured or controlled, or high participation, where exchange is active and dynamic with others.

Structuring a University Course Based on Blended Learning

Prerequisites for designing a university course based on blended learning

As analyzed in the conceptualization of blended learning, a university course is considered blended when it combines physical and virtual elements to facilitate learning. In physical terms, this implies having flexible spaces that can adapt to both face-to-face teaching and online activities, as well as a solid technological infrastructure that ensures connectivity and access to digital resources from the university campus. Additionally, audiovisual resources and collaboration spaces are required to enable interaction and group work both inside and outside the classroom. In this sense, blended approaches are based on the use of technological tools as key points to expand educational methodologies. This way, they provide resources to diversify both the access to and the distribution of pedagogical knowledge, promoting interaction and collaboration in the construction of said knowledge (Álvarez et al., 2022). Some considerations that should be considered are summarized in **Table 1**.

In this way, the preliminary considerations for designing a blended learning course encompass a variety of physical and virtual aspects. From the availability of flexible spaces and a solid technological infrastructure to access to learning management platforms and communication tools, each element contributes to creating an enriching and adaptable educational environment. The integration of audiovisual resources and digital content, along with the implementation of collaborative spaces and online assessment methods, offers a dynamic and balanced learning experience that enhances interaction and student progress in both physical and virtual environments.

These considerations constitute fundamental pillars for the effective and successful design of hybrid courses that promote meaningful and flexible learning. However, it is emphasized that the characteristics available in each modality provide the necessary framework to implement and adapt different degrees of hybridization of a university course, thereby allowing a comprehensive and effective educational experience for students.

Degree of hybridization in the university course

The design of the course is directly related to the possible degree of hybridization. By determining the balance between face-to-face and virtual activities, the level of integration between physical and digital learning environments is established. Consistency in content organization and flexibility in the schedule are key aspects for adapting to students' needs and preferences in a hybrid environment.

Applied to university educational contexts, this means that educators must consider the degree of hybridization their course will have in order to determine the most suitable learning sequences for students. **Table 2** shows parameters for establishing the degree of hybridization.

Thus, the four categories of hybridization outlined provide a range of approaches from minimal online integration to complete virtual immersion. These classifications offer clear guidance for understanding how courses are structured in terms of their combination of face-to-face and online modalities. Whether one prefers a more traditional format with only complementary online elements or a fully virtual learning experience with some face-to-face interactions, these categories offer flexibility and adaptability to meet the needs and preferences of students and educators across various educational contexts.

Hybrid learning sequences

Following the identification of the degree of hybridization a university course might implement, it is crucial to proceed with the planning of hybrid learning sequences. It is important to note that a learning sequence, or didactic sequence, is the set of logical and ordered steps structured by the educator to achieve the learning objective. Learning sequences are organized differently depending on the approach used by the educator. As Trillo and Sanjurjo (2012) state, "didactic sequences consist of an articulated series of resources, procedures, and activities that the teacher proposes to their

Table 2. Degree of hybridization in a course

Type of hybridization	Characteristics
Minimal hybridization	• Follows a traditional format of in-person teaching. • Incorporates online elements to complement or extend the course content.
Partial hybridization	• Integrates online elements more significantly along with face-to-face activities. • Proposes a balanced distribution between time dedicated to face-to-face instruction and time spent on online activities and resources.
Balanced hybridization	• Equitably combines in-person and online elements providing an integrated and flexible learning experience. • Integrates in-person and online activities that complement each other and provide opportunities for interaction both face-to-face and in virtual environments.
Complete hybridization	• Primarily conducted online, with some in-person activities or sessions. • Developed through a virtual learning environment, with all materials, activities, and assessments delivered mainly in a virtual format.

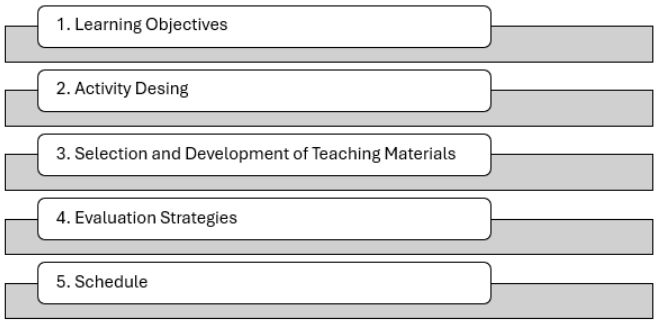

Figure 1. Considerations for planning learning sequences using the hybrid model (adapted from the guide to creating a hybrid course [METICS, 2022, p. 5]).

students to accomplish the didactic transposition and the appropriation of the content by the student" (p. 102). Considering this definition, planning learning sequences under the hybrid model involves the educator considering a series of elements for their planning, such as those shown in **Figure 1**.

Therefore, in planning learning sequences under the hybrid model, it is crucial to emphasize the precise identification of learning objectives, as these constitute the starting point for any educational strategy. Learning objectives are fundamental in course design because they clearly outline what is expected for students to demonstrate by the end of a process (Acuña, 2023); they also serve as guides that direct the design of activities and the selection of resources for both face-to-face and virtual environments. Clearly defining what is expected of students at the end of a learning sequence allows educators to structure teaching experiences that are meaningful, concrete, and effective. This identification of objectives also allows for the adaptation of activities and resources to meet specific needs, thus maximizing the impact of the learning process in a hybrid environment.

The design of learning activities should be characterized by flexibility, interactivity, and the encouragement of active participation in both face-to-face and virtual environments. Additionally, they should be carefully outlined to make the most of each modality's advantages to create a seamless integration between the two learning spaces.

Regarding these learning activities, it is important to highlight that there are various categories of activities that should be carried out in a virtual environment, with the results potentially used later during face-to-face classes, or vice versa.

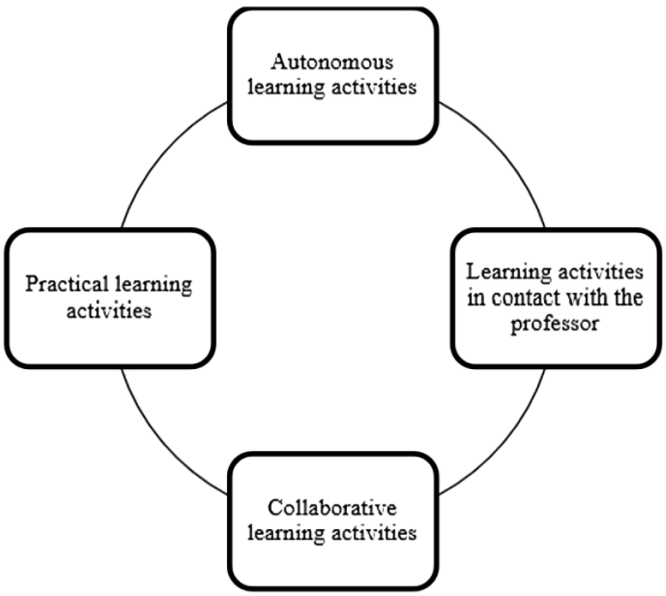

Figure 2. Learning activities for a hybrid environment (prepared from the activities proposed by Carrillo et al., 2009, as cited in Balladares-Burgos, 2021).

Figure 2 proposes a basic structure for designing learning activities, which includes four main types, all adaptable to a hybrid environment: autonomous learning, contact with the educator, collaborative learning, and practical learning.

In autonomous learning, any type of material assigned for individual work from digital readings and open educational resources such as videos and podcasts is emphasized. Learning in contact with the instructor involves face-to-face or synchronous classes via video conferencing platforms and access to recorded classes. Collaborative learning activities focus on debates, discussion forums, and assessments, as well as the use of collaborative tools. Finally, practical learning activities manifest in the submission of integrative tasks or projects, which may include written essays, digital resource production, or online evidence (Carrillo et al., 2009, as cited in Balladares-Burgos, 2021).

For the design and implementation of these activities, the use of appropriate technology and innovative digital tools can enrich the learning experience and facilitate interaction among participants, creating an engaging and student-centered environment that fosters active and meaningful learning. Additionally, it is imperative to consider the diversity of learning styles and skill levels of students to promote

Table 3. Considerations for teaching materials in hybrid environments

Pedagogical considerations	Description
Link to learning objectives	Align with the learning objectives, as well as with the virtual and in-person spaces where they will be used.
Accessibility and usability	Accessible to all university students, including those with disabilities; responsive, portable, and compatible with various devices and platforms.
Formats and interactive resources	Presented in various formats such as videos, readings, and interactive presentations to accommodate different learning styles.
Interactive elements	Include interactive elements such as discussion forums, practical activities, and review quizzes to promote active participation.

collaboration, creativity, and critical thinking, essential skills for the digital age. Activities within this model should focus on enhancing active learning in both face-to-face and virtual spaces. Here, students are the protagonists of their learning process, with the instructor assuming the role of mediator in the learning processes.

The development of learning sequences is accompanied by the selection and creation of teaching materials or the search for resources that best fit the course program. The creation of teaching materials for hybrid learning environments is fundamental as they support the teaching process and, together with other components, facilitate the achievement of learning objectives, as mentioned by Álvarez et al. (2013). Therefore, when developing teaching materials, the instructor should consider aspects to ensure that the content is accessible, interactive, and effective for both virtual and face-to-face learning spaces.

The selection of teaching materials also involves finding pre-designed materials, such as textbooks, readings, videos, or other resources deemed relevant by the instructor for both face-to-face and virtual spaces. One consideration at the university level is determining the available learning platform for creating the virtual learning environment. In the case of this article, the university has several virtual environments: Moodle, Google Classroom, and Teams, providing instructors with various options for creating the virtual environment where teaching resources will be accessed.

Furthermore, developing teaching materials involves considering accessibility aspects to ensure that information is available in multiple formats, addressing the diversity present in the learning environment. Compatibility of resources with various devices and platforms should be guaranteed, as well as the use of different formats such as videos, readings, and interactive presentations to cater to diverse learning styles. As Jaume et al. (2019) state, the university must facilitate access to higher education by providing students with the necessary resources to improve the continuity of their studies and must therefore be able to adapt to the diverse situations present in society. **Table 3** proposes some considerations for the production of teaching materials from hybrid learning environments.

Creating and selecting teaching materials in hybrid learning environments is crucial for the development of learning sequences. These materials, whether created by educators or existing ones, must align with course objectives and adapt to various learning contexts (both virtual and face-to-face). An adaptive approach is key to instructional design, as it not only supports the teaching process but also contributes to the democratization of higher education by addressing existing diversity.

Alongside the development of learning sequences and the design and selection of teaching materials, there are evaluation strategies in hybrid learning environments. Evaluation in higher education involves collecting information about students' performance to make educational decisions. It can be formative, aimed at improving ongoing learning, or summative, meant to measure the achievement of objectives at the end of a period.

Evaluation has many meanings and diverse purposes and refers to a strategy for measuring, regulating, grading, selecting, and guiding. Generally, evaluation is a process through which information about an individual's or group's performance or achievement concerning certain objectives or standards is gathered. In the higher education context, evaluation is used to measure student learning and make decisions about their progress and success in the educational process (Puig, 2020).

Evaluation is a fundamental component of any educational process and takes on a special dimension in hybrid learning environments, as these require educators to reconfigure evaluation to focus on the student and use effective mechanisms to demonstrate learning achievements. In these environments, evaluation strategies should be continuous throughout the teaching and learning process and flexible so that students can contribute to the process (METICS, 2022).

Therefore, in this learning model, evaluation requires creativity from educators and should be understood as a continuous process. This approach allows for effective assessment of learning objectives in both virtual and face-to-face sessions. Once all the previous sections are established, the final phase of planning a hybrid course involves setting up the schedule. This requires considering possible interaction scenarios and the degree of course hybridization to ensure better distribution of sessions and group sizes. The schedule is set according to the number of weeks in the course.

Virtual sessions can be divided into asynchronous and synchronous. Synchronous sessions require the simultaneous presence of students and instructors in the virtual environment, allowing for real-time interaction, clarification of doubts, and a more interactive learning experience (METICS, 2022). Asynchronous sessions provide students with the flexibility to access content and complete activities at their own pace. Face-to-face sessions will be key for developing learning and promoting collaboration between students and instructors.

The hybrid work schedule should account for the need for breaks between activities and the integration of formative assessment methods to monitor students both virtually and in person. This aims to provide better monitoring of the teaching and learning process.

Table 4. Planning a university course using a hybrid model

Course title: Pedagogical praxis in the university context			
Thematic unit: Dialogical reflection (self-reflection) of the university teacher			
Learning objective: To analyze how dialogical reflective processes about educational praxis can address the challenges of developing university pedagogical mediation and generate proposals for its transformation.			
Activity design	**Selection and development of materials**	**Evaluation strategies**	**Schedule**
Virtual session (synchronous) topic introduction: Teaching and students work synchronously on the characteristics of university teaching. They create a collaborative conceptual map highlighting the qualities of a university teacher.	**Digital format:** Introductory interactive presentation on the topic. Collaborative conceptual map (miro). Zoom platform. **Digital and printed format:** Reading on the topic.	**Formative**	**Synchronous virtual session:** 2 hours.
Asynchronous virtual session topic development: Students explore the specialized instructional resources available in the virtual classroom and begin creating their educational biography. They prepare a comprehensive and detailed first-person narrative of their educational journey, covering experiences from school to university and any other educational contexts they have encountered. The biography is created in a multimedia format chosen by the students and shared on a collaborative whiteboard, where they are required to comment on each other's work.	**Digital format:** Specialized instructional resource with the unit's content. **Digital and print format:** Work instructions on how to create the educational biography.	**Hetero-evaluation:** Evaluation rubric for educational biography. **Peer evaluation:** Digital whiteboard (Padlet) for commenting and providing feedback on peers' work.	**Asynchronous sessions:** 2 weeks.
Hybrid session topic conclusion: Students will participate in a hybrid session where they will reflect on the characteristics of university teaching and the experiences shared in the educational biography. Students participating will discuss common experiences with those present in person, and using an online collaboration tool, they will synthesize their ideas and conduct a self-evaluation.	**Digital format:** Zoom platform. Collaborative whiteboard on Padlet. Self-assessment tool.	**Self-assessment:** Online form with performance indicators for self-evaluation.	**Hybrid session:** 4 hours (for both face-to-face and virtual students).

RESULTS

Planning a University Course Using a Hybrid Model

Based on the development of the methodology, a structure is proposed for the planning of the course "pedagogical praxis in the university context," corresponding to the graduate level under the hybrid learning model in the university context of the master's in education with an emphasis on university pedagogy, within the División de Educología (Division of Educology) at the Centro de Investigación y Docencia en Educación (Center for Research and Teaching in Education) of the Universidad Nacional de Costa Rica (UNA). This course focuses on self-reflection on educational practice, the construction of new pedagogical strategies, and the socialization of experiences to transform teaching praxis (División de Educología, 2023). The course consists of three didactic units; however, for the purpose of modeling this course planning under the hybrid model, the focus is solely on the unit "dialogical reflection of the university teacher."

Table 4 presents the learning sequences to consider for this planning. The learning objective sets the specific goals to be achieved at the end of the process, which is essential for designing activities and selecting appropriate resources for both face-to-face and virtual environments. Additionally, this is linked to evaluation strategies and the schedule, depending on the degree of hybridization of the course.

Planning a university course using a hybrid model requires the integration of clearly defined face-to-face and virtual components. In this thematic axis of the course "pedagogical praxis in the university context," the thematic unit on the dialogical reflection of university teaching is addressed.

As shown in **Table 4**, each component is closely linked, allowing students to have a cohesive and enriching learning experience.

DISCUSSION AND CONCLUSIONS

Beyond merely conceptualizing hybrid learning, this approach allows for the combination of face-to-face and virtual education, facilitating interaction between teachers and students through technological tools. While effective implementation requires adequate technological infrastructure and teacher training, this model offers the opportunity to democratize higher education and improve teaching and learning processes. Clearly defining and understanding hybrid learning is crucial for developing methodological guidelines that optimize flexibility, participation, and collaboration in educational settings.

The characterization of hybrid learning is essential for understanding its benefits and challenges for higher education. In this hybrid environment, the active role of students is emphasized as a response to learning experiences mediated by teaching and supported by digital technologies. Strategies should include both synchronous and asynchronous work, leveraging resources that facilitate personalized learning. Additionally, the flexibility in time and space allows access to information anytime and anywhere, enhancing educational effectiveness and adapting to students' individual needs.

On the other hand, structuring hybrid university courses requires integrating physical and virtual spaces, supported by robust technological infrastructure and efficient

communication tools. The combination of digital and face-to-face resources promotes a flexible and dynamic educational environment. It is crucial to determine the degree of hybridization of the course to balance online and face-to-face activities according to students' needs. Planning should focus on clear objectives, interactive activities, and accessible teaching materials, ensuring a comprehensive educational experience. Continuous and creative evaluation, along with a balanced schedule, is essential for measuring and improving learning in hybrid environments, providing effective and meaningful higher education.

The planning of a hybrid university course, such as the one described in the thematic unit "dialogical reflection of university teaching," underscores the importance of integrating face-to-face and virtual activities cohesively. It is important to visualize how learning goals, designed activities, and selected resources can be coordinated to maximize educational effectiveness. By incorporating synchronous and asynchronous sessions along with online collaboration tools, a dynamic and continuous interaction between students and teachers is facilitated. This holistic planning not only supports the development of critical pedagogical competencies but also fosters a reflective and collaborative learning environment, essential for addressing the challenges of pedagogical mediation in the university context.

In summary, integrating hybrid models in education entails that all stakeholders understand the implications of these methodologies in terms of planning, resources, and monitoring teaching and learning processes. Determining the acquired responsibilities leads to the development of more flexible and adaptable learning methodologies for contemporary educational contexts.

Author contributions: Both authors were involved in concept, design, collection of data, interpretation, writing, and critically revising the article. Both authors approved the final version of the article.

Funding: No external funding is received for this article.

Ethics declaration: The authors declared that this study did not require any ethical approval because it is a systematization from the experience that both professors had through the delivery of the course "Pedagogical Praxis in the University Context" at the UNA.

Declaration of interest: The authors declare that they have no competing interests.

Availability of data and materials: All data generated or analyzed during this study are available for sharing when appropriate request is directed to corresponding author.

REFERENCES

Acuña, M. (2023). Objetivos de aprendizaje: Aprendiendo a redactarlos [Learning objectives: Learning to write them]. *EVirtualplus*. https://www.evirtualplus.com/objetivos-de-aprendizaje-como-redactarlos/

Álvarez, H., Avello, R., & López, R. (2013). Los entornos virtuales de aprendizaje como recurso didáctico en el ámbito universitario [Virtual learning environments as a teaching resource in the university setting]. *Universidad y Sociedad, 5*(1), 1–10. https://rus.ucf.edu.cu/index.php/rus/article/view/443

Álvarez, M., Lugo, M. T., & Brito A. (2022). Modelos educativos híbridos: Escenarios y propuestas para el acompañamiento de trayectorias de estudiantes secundarios en contextos vulnerables [Hybrid educational models: Scenarios and proposals for supporting the trajectories of secondary school students in vulnerable contexts]. *Organización de Estados Iberoamericanos para la Educación*. https://oei.int/oficinas/argentina/publicaciones/modelos-educativos-hibridos/

Balladares-Burgos, J. (2021). Percepciones en torno a una educación remota y a una educación híbrida universitaria durante la pandemia de la COVID-19: Estudio de caso [Perceptions around remote education and hybrid university education during the COVID-19 pandemic: A case study]. *Revista Interuniversitaria de Investigación en Tecnología Educativa*, (11), 25–39. https://doi.org/10.6018/riite.489531

División de Educología. (2023). Programa del curso: Praxis pedagógica en el contexto universitario [Course program: Pedagogical praxis in the university context]. *Division of Educology*.

Engel, A., & Coll, C. (2022). Entornos híbridos de enseñanza y aprendizaje para promover la personalización del aprendizaje [Hybrid teaching and learning environments to promote personalized learning]. *Revista Iberoamericana de Educación a Distancia, 25*(1), 225–242. https://doi.org/10.5944/ried.25.1.31489

Jaume, J., Perales, F., Negre-Bennasar, F., & Fontanet, G. (2019). El diseño web y material didáctico accesible en la enseñanza universitaria [Web design and accessible teaching materials in university teaching]. *Revista de Educación a Distancia, 19*(60). https://doi.org/10.6018/red/60/06

Mejía, C., Michalón, D., Michalón, R., López, R., Palmero, D., & Sánchez, S. (2017). Espacios de aprendizaje híbridos. Hacia una educación del futuro en la Universidad de Guayaquil [Hybrid learning spaces. Towards an education of the future at the University of Guayaquil]. *MediSur, 15*(3), 350–355. https://www.redalyc.org/articulo.oa?id=180051460010

METICS. (2022). Guía para crear un curso híbrido [Guide to creating a hybrid course]. *METICS*. https://metics.ucr.ac.cr/images/Documentos/Hibridacion/Guia-Recomendaciones-para-el-aprendizaje-Hibrido-en-la-UCR.pdf

Puig, N. S. (2020). *Evaluar y aprender: Un único proceso* [Assess and learn: A single process]. Ediciones Octaedro.

Salinas, J., Benito, B., Pérez, A., & Gisbert, M. (2018). Blended learning, más allá de la clase presencial. *Revista Iberoamericana de Educación a Distancia, 21*(1), 195–213. https://doi.org/10.5944/ried.21.1.18859

Trillo, F., & Sanjurjo, L. (2012). *Didáctica para profesores de a pie: Propuestas para comprender y mejorar la práctica* [Teaching for teachers on the ground: Proposals to understand and improve practice]. Homo Sapiens.

UNESCO. (2020). La educación en un mundo tras la COVID-19: Nueve ideas para la acción pública [Education in a post-COVID-19 world: Nine ideas for public action]. *UNESCO*. https://unesdoc.unesco.org/ark:/48223/pf0000373717_spa

Villagra, M., & Cabrera, P. J. (2023). La modalidad híbrida: Una alternativa como un nuevo modelo de aprendizaje [The hybrid modality: An alternative as a new learning model]. *Revista Paraguaya de Educación a Distancia, 4*(1), 11–22. https://revistascientificas.una.py/index.php/REPED/article/view/3278