



Hybrid Learning: A combination of face-to-face and online learning

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Abstract

Background and Aims: Hybrid learning is important because it combines the flexibility of online education with the personal interaction of in-person classes, meeting a variety of learning needs and schedules. This approach increases engagement, offers a more personalized learning experience, and takes advantage of technological advancements to improve educational outcomes. Thus, the purpose of this paper is to investigate Hybrid Learning, which is a combination of in-person and online learning.

Methodology: The review article used a comprehensive literature synthesis to investigate the effectiveness and limitations of hybrid learning models. By analyzing data from various studies, it identified best practices for integrating face-to-face and online instruction in educational settings.

Results: The finding found that hybrid learning, which combines face-to-face and online instruction, provides a flexible and inclusive educational approach that accommodates a wide range of student needs and preferences. By combining the immediate feedback and personal engagement of in-person classes with the accessibility and adaptability of online learning, hybrid models create a rich and dynamic learning environment. This combination not only improves student engagement and outcomes but also enables educators to employ a wide range of teaching methods and technologies. Finally, hybrid learning represents a progressive step toward more personalized and effective education, meeting the needs of both modern learners and educators.

Conclusion: Hybrid learning effectively combines in-person and online instruction, resulting in a flexible educational environment that meets the diverse needs of students. This approach improves engagement and outcomes, paving the way for more personalized and effective learning experiences in today's educational environment.

Keywords: Hybrid Learning, Face-to-face learning, Online learning

Introduction

Hybrid learning, also known as blended learning, has emerged as an educational approach that combines traditional face-to-face instruction with online learning components. This model arose from the need to adjust educational practices to meet the demands of modern technology and changing learner preferences. The concept of hybrid learning originated in the early 2000s when educational institutions began experimenting with combining in-person classroom experiences with digital resources to improve learning outcomes (Garrison & Kanuka, 2004). This approach builds on the strengths of both modalities to provide a more adaptable and accessible learning environment.

The growth of hybrid learning can be attributed to technological advancements and the increased availability of digital tools and resources. The incorporation of online platforms into traditional teaching methods has enabled the creation of a more interactive and personalized learning environment. According to research, hybrid learning environments can boost student engagement and achievement by offering a variety of instructional methods and allowing for self-paced learning (Horn & Staker, 2014). This shift reflects a broader trend toward the use of technology to support and improve academic outcomes.

Despite its benefits, hybrid learning presents challenges in terms of effective implementation and management of both in-person and online components. Educators must navigate the complexities of designing and delivering content in multiple formats while ensuring that online and in-person interactions are seamlessly integrated. According to research, successful hybrid learning necessitates





careful planning and continuous evaluation to address issues such as technological accessibility and student support (Oliver & Trigwell, 2005). As hybrid learning evolves, ongoing research and development are critical for improving its effectiveness and addressing new challenges.

Hybrid learning, which combines face-to-face and online learning modalities, is gaining popularity in modern education due to its ability to provide a more flexible and personalized learning experience. This approach meets students' diverse needs by offering multiple ways to engage with course materials and interact with instructors. According to Allen and Seaman (2013), hybrid learning combines the best aspects of both traditional and online education, allowing students to benefit from direct, in-person instruction while also leveraging the convenience and accessibility of digital resources. This adaptability promotes diverse learning styles and schedules, making education more inclusive and accommodating.

The value of hybrid learning extends to its potential to improve educational outcomes through increased engagement and personalized instruction. Bernard et al. (2004) found that hybrid models can improve student performance by providing a more interactive and adaptable learning environment. The combination of face-to-face and online components provides a more comprehensive educational experience, as students can engage in hands-on activities during in-person sessions and reinforce their learning through online exercises and resources. This dual approach not only accommodates different learning styles but also assists students in better grasping and remembering complex concepts.

Furthermore, hybrid learning addresses issues of scalability and accessibility in education. With the growing demand for higher education and professional development, traditional classroom settings may not be sufficient to meet these needs. Hybrid models, by leveraging online technologies, provide a scalable solution that can accommodate a larger number of students while still providing access to high-quality education regardless of location (Garrison & Kanuka, 2004). This approach is especially useful for reaching students who would otherwise face barriers to traditional education, thereby contributing to a more equitable educational landscape.

However, investigating hybrid learning is critical because of its potential to meet the changing needs of modern educational systems. As technology advances and educational demands shift, traditional face-to-face learning models may not be sufficient to meet learners' diverse needs. Hybrid learning provides a flexible approach that combines online and in-person instruction, catering to a variety of learning styles and schedules. This combination enables educators to improve instructional methods by incorporating interactive online resources and personalized feedback while retaining the benefits of direct, face-to-face engagement. Exploring hybrid learning allows educators and institutions to better adapt to technological advancements and changing student expectations, resulting in a more inclusive and effective educational experience. Furthermore, research into hybrid learning is critical for understanding its impact on student outcomes and institutional efficiency. Research shows that hybrid learning models can improve academic performance and student satisfaction by providing a more dynamic and adaptable learning environment (Horn & Staker, 2014). Investigating how these models work in practice can provide valuable insights into best practices for integrating online tools with traditional methods, allowing institutions to better optimize their resources and teaching strategies. This research can also reveal potential challenges and solutions, allowing educators to fine-tune hybrid learning approaches and better meet the needs of diverse students. As education evolves, understanding and leveraging hybrid learning will be critical to developing effective, future-ready educational practices.

Objective

This paper aims to explore Hybrid Learning A combination of face-to-face and Online Learning.

Hybrid Learning A combination of face-to-face and online learning

Hybrid learning, also known as blended learning, combines traditional face-to-face instruction with online learning components. Here's a breakdown of each aspect:

1. Face-to-Face Learning:





Face-to-face learning is traditional classroom education in which students and teachers interact directly in a physical space. This mode of learning is distinguished by in-person attendance and real-time communication, allowing for a dynamic and interactive educational environment (Smith, 2016). In a face-to-face setting, students receive immediate feedback on their performance, allowing them to address misunderstandings and improve their understanding of the material quickly. The physical presence of an instructor also allows for spontaneous clarification of concepts and tailored instruction that meets students' immediate needs.

One of the primary advantages of face-to-face learning is the availability of hands-on activities and experiential learning. According to Johnson, Adams, Becker, and Estrada (2015), physical presence in the classroom enables practical demonstrations, laboratory experiments, and collaborative projects that improve learning through direct participation. These activities enable students to apply theoretical knowledge in a practical setting, resulting in a deeper understanding and retention of the material. Furthermore, face-to-face learning promotes the development of practical skills and competencies, which are frequently difficult to achieve through online methods alone.

Face-to-face learning also provides significant benefits in terms of social interaction and collaboration. In-person classes foster a sense of community and teamwork by allowing students to participate in discussions, group projects, and peer-to-peer feedback (Garrison & Kanuka, 2004). This interaction not only improves cognitive learning but also helps to develop interpersonal skills and professional networks. The collaborative environment of a physical classroom contributes to the development of a supportive learning environment, which can be especially beneficial for student motivation and engagement.

2. Online Learning:

Online learning is the use of digital platforms to access educational content, participate in discussions, and complete assignments remotely. This mode of learning uses a variety of technological tools, including learning management systems (LMS), video conferencing, and online forums, to deliver instruction and facilitate interaction (Anderson, 2008). Students can access course materials from anywhere with internet access, eliminating the need for physical presence in a traditional classroom setting. This adaptability promotes diverse learning environments and allows for the incorporation of a variety of digital resources that can improve the learning experience.

One of the main advantages of online learning is its flexibility in terms of time and location. According to Allen and Seaman (2013), online education allows students to access materials and complete coursework on their own time, which is especially beneficial for those who must balance work, family, and other responsibilities. The asynchronous nature of online learning allows students to interact with the content at their own pace, resulting in a more personalized learning experience. Furthermore, the availability of course materials online allows students to review and revisit content as needed, which aids their learning processes.

Online learning also includes a variety of multimedia resources, which can improve the educational experience by accommodating different learning styles. Multimedia elements like videos, interactive simulations, and digital readings can provide new perspectives and deepen understanding of the material (Bates, 2015). These resources not only enhance the learning experience but also allow students to delve deeper into topics. Furthermore, online platforms frequently include collaboration and communication tools, such as discussion boards and group projects, which can promote peer interaction and community-building despite participants' physical distance.

3. Integration of Both Modes:

Hybrid learning combines face-to-face and online learning components to create a cohesive educational experience that maximizes the benefits of both methods. This blended approach enables a seamless transition between in-person and digital interactions, allowing students to attend physical classes for direct instruction while also participating in online activities for supplementary learning and collaboration (Garrison and Kanuka, 2004). By combining these two modes, hybrid learning seeks to improve the educational process by providing a more flexible and responsive learning environment that adapts to different student needs and preferences.





Hybrid learning has the advantage of combining the benefits of both face-to-face and online instruction. As noted by Horn and Staker (2014), hybrid models take advantage of the flexibility of online learning, allowing students to access course materials and complete assignments at their own pace while still benefiting from the personal engagement and immediate feedback available in traditional classroom settings. This combination addresses the limitations of each approach individually, resulting in a balanced and effective learning experience that accommodates a variety of learning styles and schedules.

Hybrid learning also promotes a more dynamic and interactive educational environment by combining various instructional approaches. The face-to-face component enables hands-on activities, real-time discussions, and direct mentoring, whereas the online component provides access to a variety of multimedia resources and collaborative tools (Oliver & Trigwell, 2005). This integration not only improves student engagement and learning outcomes but also gives educators the freedom to design and implement a more diverse and enriched curriculum. Hybrid learning aims to provide a more comprehensive and adaptable educational experience by combining the best aspects of both approaches.

4. Technology Use:

Technology is essential to hybrid learning because it serves as the foundation for combining online and in-person components of education. In hybrid learning environments, technology provides the platforms and tools required for online interactions, assignments, and resource access. Learning Management Systems (LMS), video conferencing software, and collaborative platforms help to deliver course materials smoothly and allow students to participate in virtual discussions and group projects (Anderson, 2008). These technological resources help the hybrid model by ensuring that both online and in-person components are well-integrated and accessible.

The advantages of technology in hybrid learning are multifaceted. First, multimedia resources like videos, interactive simulations, and digital textbooks improve the learning experience by offering a variety of content delivery formats (Bates, 2015). These resources cater to various learning styles, allowing students to engage with material more dynamically and interactively. Furthermore, virtual collaboration tools, such as discussion boards and group workspaces, help students communicate and work together even when they are not physically present in the same location. This promotes a collaborative learning environment that extends beyond traditional classroom boundaries.

Furthermore, technology enables real-time feedback mechanisms, which can significantly improve the learning experience. Online quizzes, automated grading systems, and instant messaging enable instructors to provide immediate feedback on student performance while also addressing questions or concerns as they arise (Garrison & Kanuka, 2004). This timely feedback enables students to stay on track, make necessary adjustments, and continually improve their understanding of the material. Overall, incorporating technology into hybrid learning improves instructional delivery while also contributing to a more engaging and responsive educational experience.

5. Flexibility and Adaptability:

Hybrid learning is highly flexible and adaptable, making it a versatile approach to education that can be tailored to meet a variety of educational needs and preferences. Hybrid learning models allow for more personalization than traditional methods because they combine face-to-face and online elements. Students can engage with online content at their own pace and participate in in-person activities that are appropriate for their learning style, resulting in a more personalized learning experience (Garrison & Kanuka, 2004). This adaptability enables a more responsive educational environment that can cater to different learner needs and preferences.

One of the main advantages of hybrid learning is its ability to accommodate various learning styles, schedules, and paces. According to Horn and Staker (2014), students can use online resources to review material, access various types of content, and work at their own pace, while also benefiting from in-person interactions that provide immediate feedback and hands-on experiences. This dual approach accommodates a wide range of learning styles, from those who thrive in a self-directed online environment to those who benefit from direct, personalized instruction. Furthermore,





scheduling flexibility enables students to balance their academic pursuits with other responsibilities, such as work or family commitments.

Hybrid learning also allows for continuous adjustments based on student feedback and performance. Educators can use data from online interactions and assessments to identify areas where students require additional assistance or where instructional methods can be improved (Bates, 2015). This real-time feedback loop enables continuous refinement of the learning experience, ensuring that it is both effective and responsive to students' changing needs. Hybrid learning models, which combine online and face-to-face components, can be dynamically adjusted to improve educational outcomes and provide a more personalized and effective learning experience.

6. Assessment and Evaluation:

Assessment and evaluation in hybrid learning combine traditional methods with online evaluations, reflecting the integrated nature of this educational approach. Hybrid learning models frequently assess student performance through a combination of in-person tests, online quizzes, and digital assignments. Traditional classroom tests and exams provide a standardized measure of comprehension, whereas online evaluations allow for more frequent and diverse assessments, such as formative quizzes, peer reviews, and interactive exercises (Garrison & Kanuka, 2004). This dual approach ensures that assessment is not only comprehensive but also consistent with the various modes of instruction used in hybrid learning environments.

One of the primary advantages of combining traditional and online assessment methods is the ability to obtain a more complete picture of student performance. Traditional assessments are useful for measuring knowledge retention and understanding in a controlled setting, whereas online evaluations can provide information about students' abilities to apply concepts, interact with digital tools, and participate in collaborative activities (Horn & Staker, 2014). This comprehensive approach enables educators to gain a better understanding of students' strengths and areas for improvement, resulting in more targeted support and feedback.

Furthermore, the variety of assessment methods in hybrid learning accommodates different skills and learning styles. Online assessments, for example, can include multimedia projects, interactive simulations, and discussions that allow for a variety of expression and understanding (Bates, 2015). By incorporating a variety of assessment strategies, hybrid learning ensures that students are assessed on a broader range of competencies and skills, resulting in a more inclusive and equitable evaluation process. This flexibility in assessment also aids in identifying and addressing individual learning needs, resulting in more effective and personalized education.

7. Student Engagement:

The combination of face-to-face and online elements improves student engagement in hybrid learning by effectively maintaining interest and motivation throughout the learning process. The hybrid model combines various instructional methods and interactive formats to create a dynamic educational environment that captures students' attention and keeps them engaged (Garrison & Kanuka, 2004). By alternating between in-person and online activities, students get a variety of learning experiences that keep the content interesting and stimulating, preventing boredom and fostering a more engaging learning environment.

The advantages of this multifaceted approach to engagement are considerable. Hybrid learning promotes active participation by combining a variety of instructional strategies such as interactive lectures, online discussions, multimedia resources, and collaborative projects (Horn & Staker, 2014). This variety not only caters to different learning styles but also actively involves students in the learning process. For example, online platforms can support interactive elements like forums and quizzes, whereas in-person sessions can provide opportunities for real-time discussions and hands-on activities. This combination of methods keeps students engaged and motivated by providing multiple modes of interaction.

Furthermore, interactive content in hybrid learning environments increases student engagement by making learning more participatory and relevant. According to Bates (2015), the use of multimedia tools and digital resources in online components enables creative and diverse content delivery, which can pique students' interest and facilitate deeper understanding. By combining these resources with





traditional classroom experiences, hybrid learning provides a richer and more engaging educational experience that encourages long-term participation and fosters a more active learning community.

8. Instructor Role:

In a hybrid learning environment, instructors are responsible for effectively managing both face-to-face and online components. This dual responsibility necessitates that educators create and deliver instruction that seamlessly integrates in-person interactions with digital elements, ensuring that both modes complement one another to provide a cohesive learning experience (Garrison & Kanuka, 2004). Instructors must be skilled at using a variety of technological tools and platforms to facilitate online learning while still maintaining the effectiveness of traditional classroom instruction. This entails balancing direct instruction with the use of multimedia resources, online discussions, and digital assignments, which can be challenging but necessary for a successful hybrid learning environment.

The advantages of this integrated teaching approach are significant. By managing both in-person and online components, instructors can provide a variety of instructional methods to accommodate different learning styles and preferences. For example, face-to-face sessions can emphasize interactive, hands-on activities and immediate feedback, whereas online components can provide flexible access to additional resources and opportunities for asynchronous participation (Horn & Staker, 2014). This variety of teaching methods addresses students' diverse needs, improving their overall learning experience while accommodating different schedules and learning preferences.

Furthermore, effective use of digital tools enables educators to create a more dynamic and engaging learning environment. According to Bates (2015), incorporating technology into hybrid learning can enable interactive and multimedia-rich content, thereby increasing student engagement and understanding. Instructors who successfully integrate these tools into traditional teaching methods can provide a more versatile and responsive educational experience, ultimately improving student outcomes and satisfaction. This blended approach not only meets a wide range of learning needs but also enables teachers to innovate and adapt their teaching strategies to meet the demands of modern education.

9. Logistics and Planning:

To ensure the success of a hybrid learning model, meticulous scheduling and coordination of resources, as well as technology integration, are required. This process entails creating a curriculum that effectively combines in-person and online components, aligning them in a way that maximizes educational outcomes. Educators must plan how to integrate various technologies and tools into traditional classroom activities, ensuring that both components complement one another and provide a consistent learning experience (Garrison & Kanuka, 2004). This careful planning is essential for establishing a consistent structure in which students can seamlessly transition between in-person and online activities, thereby increasing the overall effectiveness of the hybrid learning model.

One of the primary advantages of thorough logistics and planning is that both learning components are coordinated, allowing students to better understand and manage their learning activities. Clear scheduling and resource allocation ensure that students understand when and where they should engage with each component of their coursework. According to Horn and Staker (2014), this organization reduces confusion and helps students better plan their time, which is critical for balancing the demands of online and in-person learning. Well-coordinated planning also ensures that technological resources are used efficiently and that potential issues with technology integration are addressed early on.

Furthermore, effective logistics and planning help students and instructors understand expectations more clearly. By establishing clear guidelines and communication strategies, educators can provide students with detailed information about course requirements, assessment methods, and participation expectations. This transparency helps students stay engaged and focused on the course objectives, reducing uncertainty and improving their overall learning experience (Bates, 2015). In conclusion, careful planning and coordination are required for the successful implementation of hybrid learning, ensuring that both face-to-face and online components are effectively integrated and that students are well-informed and supported throughout their educational journey.





10. Accessibility and Inclusivity:

Hybrid learning improves accessibility and inclusivity by providing a flexible approach to education for students who may struggle in traditional classroom settings. Hybrid learning models, which combine face-to-face and online components, offer students alternative ways to engage with course material and participate in their education, regardless of their physical location or personal circumstances (Garrison & Kanuka, 2004). This flexibility is especially useful for students with disabilities, who work full-time or have other obligations that make regular attendance in traditional classrooms difficult. Online components enable these students to access lectures, complete assignments, and participate in discussions on their schedule, overcoming time and location constraints.

The advantages of hybrid learning in terms of accessibility and inclusion are significant. It addresses diverse student needs by providing multiple modes of engagement and participation. For example, students who require special accommodations, such as extra time for assignments or assistive technologies, can often benefit from online platforms that offer these features (Bates, 2015). Furthermore, hybrid learning can support multiple learning styles by offering a variety of instructional methods, such as multimedia content and interactive tools, which can be especially beneficial for students with different learning preferences or needs. This approach ensures that every student has equal access to educational resources and opportunities.

Furthermore, hybrid learning fosters a more inclusive environment by allowing students from diverse geographical locations and backgrounds to take the same course offerings. According to Horn and Staker (2014), the online component of hybrid learning eliminates geographical barriers, allowing students from diverse regions to access high-quality education without having to relocate or commute. This inclusivity promotes educational access and ensures that a broader range of students can benefit from the same learning experiences, resulting in a more diverse and representative academic community.

Criticism

Despite its numerous advantages, hybrid learning has received several criticisms regarding its implementation and effectiveness. One major concern is the possibility of unequal access to technology, which may exacerbate existing educational disparities. Students from disadvantaged backgrounds may have difficulty accessing necessary digital tools and reliable internet connections, limiting their ability to fully participate in online components of hybrid courses (Hargittai, 2020). This digital divide can create disparities in learning experiences and outcomes, undermining the inclusivity that hybrid learning seeks to achieve.

Another criticism leveled at hybrid learning is the challenge of maintaining instructional quality and consistency across both face-to-face and online components. While hybrid models provide flexibility, they also require educators to effectively manage and integrate multiple modes of instruction, which can be difficult and complicated (Garrison & Kanuka, 2004). Instructors may struggle to balance the needs of in-person and online students, potentially resulting in variations in instructional quality and engagement. This can have an impact on the hybrid learning model's overall effectiveness, as well as student satisfaction and performance.

Furthermore, hybrid learning can increase the cognitive load for students, who must navigate both online platforms and in-person classroom environments. The constant transition between different modes of learning can be overwhelming and cause difficulties with focus and organization (Sweller, 2016). This cognitive load can disrupt the learning experience, making it difficult for students to absorb and retain information effectively. Addressing this issue necessitates careful design of hybrid courses to reduce unnecessary complexity and assist students in managing their learning activities.

Finally, there is concern that the emphasis on technology in hybrid learning will take away from the development of interpersonal skills and face-to-face interactions. While online platforms make remote communication and collaboration easier, they may not fully replicate the richness of in-person interactions required for developing social and professional skills (Garrison & Kanuka, 2004). This



potential limitation suggests that hybrid learning should be carefully balanced so that students benefit from both technological and human aspects of education.

Conclusion

Hybrid learning, which combines in-person and online instructional methods, represents a significant shift in educational approaches. Hybrid learning addresses a wide range of student needs and preferences by combining traditional classroom settings' interactive, personal engagement with the flexibility and accessibility of online platforms. This model not only improves learning outcomes through various instructional methods, but it also accommodates different schedules and learning styles, resulting in a more inclusive and adaptable educational environment.

Knowledge Contribution

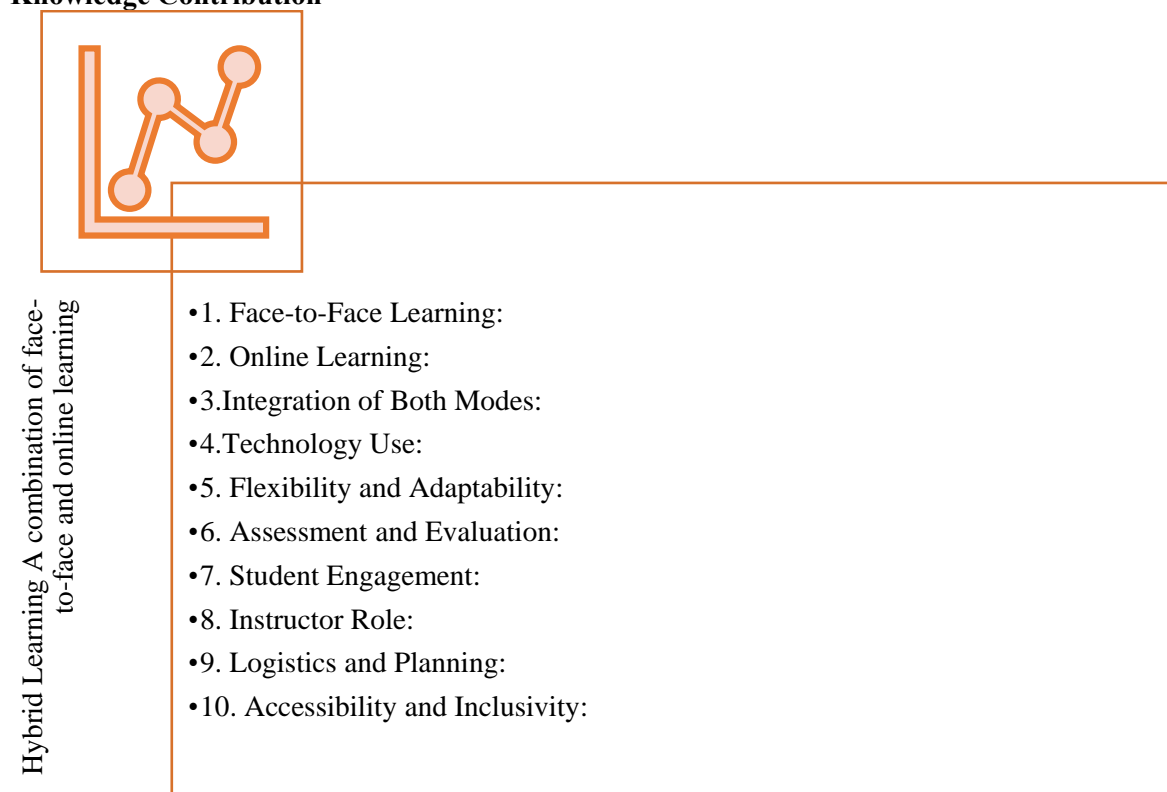


Figure 1 Hybrid Learning A combination of face-to-face and online learning

Hybrid learning, which combines face-to-face and online instruction, provides a versatile educational framework that improves the learning experience by incorporating both modes. By leveraging technology, educators can tailor instruction to meet the diverse needs of their students. This approach promotes greater student engagement and encourages instructors to take a more active role as facilitators of learning. Effective logistics and planning are critical for smooth implementation, ensuring that assessments are meaningful and accessible to all students. Finally, hybrid learning encourages inclusivity and accessibility, making it an appealing option for modern education.



Recommendation

To fully realize the benefits of hybrid learning, institutions should focus on developing a well-structured plan that effectively balances face-to-face and online components. This includes investing in reliable technological tools, training educators, and ensuring clear communication with students about course expectations and schedules. Furthermore, continuous assessment and feedback mechanisms should be implemented to improve the hybrid model, address any issues, and adapt to changing educational needs. Prioritizing these strategies allows educational institutions to create a more engaging and effective learning experience that combines the benefits of both traditional and digital instruction.

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