Journal of English Language Teaching and Applied Linguistics
ISSN: 2707-756X
DOI: 10.32996/jeltal
Journal Homepage: www.al-kindipublisher.com/index.php/jeltal

JELTAL
AL-KINDI CENTER FOR RESEARCI AND DEVELOPMENT

| RESEARCH ARTICLE

Hybrid Learning Method in Teaching English for Medicine at the University of Bisha: Lecturers' and students' Perceptions

Dr. Fatema Alharthy
Assistant Professor, Department of English and Literature, University of Bisha, Bisha, Saudi Arabia
Corresponding Author: Dr. Fatema Alharthy, **E-mail**: fharthey@ub.edu.sa

| ABSTRACT

This study explores the implementation of hybrid learning, specifically through the Blackboard Learning Management System, as a pedagogical model in higher education. The purpose of the research is to examine the benefits and challenges associated with hybrid learning from the perspectives of lecturers and students, with a focus on its application in specialized disciplines such as medicine. The study adopts a qualitative design, employing semi-structured interviews, classroom observations, and document analysis to collect data from lecturers and students engaged in hybrid learning environments. The findings reveal that hybrid learning offers significant advantages, including enhanced flexibility, accessibility, and the integration of theoretical and practical knowledge. For lecturers, it facilitates innovative teaching strategies, fosters professional development, and enables efficient course management. For students, hybrid learning promotes self-discipline, time management, and active engagement while providing opportunities for real-world applications and lifelong learning. However, the study also identifies several challenges, including technological limitations, increased workload for lecturers, and skill gaps in navigating digital platforms. Additional issues, such as maintaining student engagement in asynchronous components, limited interaction in online activities, and assessment complexities, further underscore the need for targeted interventions. The research concludes that while hybrid learning is a transformative approach to modern education, its success requires robust technological infrastructure, comprehensive training for users, and institutional support. These measures can help address the identified challenges and optimize the benefits of hybrid models. The study highlights the importance of innovative pedagogical practices, tailored interventions, and a supportive digital ecosystem to enhance the effectiveness of hybrid learning, particularly in specialized and evolving academic fields such as medicine. This research provides valuable insights for educators, administrators, and policymakers aiming to implement or improve hybrid learning frameworks, contributing to the broader discourse on educational innovation in the digital age.

| KEYWORDS

Hybrid learning, Blackboard, English for medicine, teachers' perceptions, higher education

| ARTICLE INFORMATION

ACCEPTED: 01 January 2025 **PUBLISHED:** 25 January 2025 **DOI:** 10.32996/jeltal.2025.7.1.8

1. Introduction

The hybrid learning model, often known as blended learning, has become a ground-breaking educational approach that integrates the benefits of traditional in-person instruction with the adaptability and engagement offered by online learning. This innovative method aims to bridge the gap between conventional classroom experiences and the growing demand for digital education by integrating both modalities seamlessly. In recent years, the hybrid learning model has gained prominence due to its ability to cater to diverse learning preferences, enhance student engagement, and provide accessibility to educational resources anytime and anywhere. The adoption of this model has accelerated particularly in response to global disruptions, such as the COVID-19 pandemic, which underscored the necessity for adaptable and resilient educational frameworks. By blending synchronous and

asynchronous learning activities, hybrid models empower educators to create dynamic, personalized, and collaborative learning environments. Furthermore, this approach leverages advanced technologies, such as learning management systems, virtual reality, and analytics, to optimize teaching methodologies and monitor student progress effectively.

While previous research has broadly examined the effectiveness of hybrid or blended learning models in education, there is a notable lack of focused studies investigating their application in teaching English for medical purposes. This gap leaves critical questions unanswered regarding the practical challenges and benefits experienced by lecturers in higher education settings. To address this, the current study aims to explore lecturers' perceptions of implementing such a model for teaching English to medical students at the University of Bisha. This research is guided by the following central question: What are the perceptions of lecturers at the University of Bisha regarding the adoption of a hybrid/blended learning model in teaching English for medical purposes? Consequently, the study seeks to provide a comprehensive understanding of lecturers' experiences, challenges, and insights about employing a hybrid/blended learning approach in this specialized context. By delving into these perceptions, the study aims to contribute valuable perspectives to the existing literature, offering practical implications for enhancing hybrid teaching strategies in higher education, particularly in the field of English for medical purposes.

2. Literature Review

2.1 Definition of Hybrid Learning and Blackboard

Hybrid learning, also known as blended learning, is an educational method that integrates traditional in-person teaching with online learning activities. According to Garrison and Vaughan (2008), it involves the "thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (p. 5). Unlike purely online or conventional classroom settings, hybrid learning seeks to leverage the strengths of both modalities, creating a balanced learning environment. Through this model, educators can tailor their instructional strategies to meet diverse learner needs, promote flexibility, and enhance engagement (Graham, 2013).

Blackboard is a comprehensive Learning Management System (LMS) widely used in educational institutions to support and enhance teaching and learning. It provides a centralized platform for course management, enabling educators to create, organize, and deliver instructional content to students. Through Blackboard, users can engage in various learning activities such as accessing lectures, submitting assignments, participating in discussion forums, and completing quizzes or exams. As an advanced educational technology tool, Blackboard supports both synchronous and asynchronous learning, making it a key component in hybrid and online learning environments. Its functionalities include multimedia integration, grade tracking, personalized feedback, announcements, and collaborative tools, all designed to foster student engagement and streamline the learning process.

2.2 Challenges in Applying the Hybrid Learning Model

While hybrid learning offers considerable advantages, its implementation is not without challenges. One of the primary difficulties lies in the effective integration of in-person and online components. Educators often face a steep learning curve in mastering digital tools and designing cohesive lesson plans that align with both modalities (Boelens et al., 2017). Another significant challenge is the digital divide, where disparities in access to technology and internet connectivity can hinder equitable learning opportunities, particularly in developing regions (Czerniewicz et al., 2019). Additionally, maintaining student motivation and engagement in the asynchronous segments of hybrid learning requires innovative instructional techniques and consistent monitoring (Azevedo et al., 2020). Institutional factors, such as inadequate support systems, limited professional development opportunities, and resistance to change among faculty, further complicate the adoption of hybrid learning models (Owston et al., 2019).

2.3 Benefits of Hybrid Learning

Despite these challenges, hybrid learning offers numerous benefits that make it an attractive educational model. First, it provides flexibility, enabling students to access educational resources at their own convenience, while maintaining structured interaction during in-person sessions (Means et al., 2013). This adaptability is especially advantageous for non-traditional learners, such as working professionals and part-time students. Second, hybrid learning fosters active learning by enabling the use of diverse teaching methods, including flipped classrooms, collaborative projects, and interactive multimedia (Bernard et al., 2014). The model also enhances accessibility, as online components can reach a broader audience, including those in remote or underserved areas. Furthermore, hybrid learning promotes personalized instruction through data analytics, which allows educators to track student progress and tailor interventions accordingly (Hrastinski, 2019).

2.4 Blackboard Classes in Hybrid Learning

The utilization of learning management systems (LMS), such as Blackboard, has been pivotal in implementing hybrid learning in higher education. Blackboard provides a structured platform for delivering online course components, facilitating communication, and integrating various multimedia tools to enhance learning experiences. In a hybrid model, Blackboard enables the asynchronous delivery of content through recorded lectures, quizzes, discussion boards, and reading materials, complementing in-person classes.

Studies have highlighted the effectiveness of Blackboard in supporting hybrid learning environments. For example, Al-Fadhli (2020) examined how Blackboard promotes student engagement in Saudi universities, particularly in language learning, by offering interactive tools like forums and real-time feedback mechanisms. Similarly, Khalil et al. (2021) explored the role of Blackboard in enhancing collaboration and communication in hybrid classrooms, finding that students appreciated its accessibility and flexibility in managing course activities. However, challenges remain, including technical issues, inadequate training for instructors, and difficulties in maintaining consistent participation in online components.

Blackboard also plays a critical role in fostering inclusivity and accessibility in hybrid learning. For instance, its ability to archive class recordings allows students to review lessons at their own pace, accommodating different learning speeds and providing opportunities for revision. Additionally, its integration with analytic tools enables instructors to monitor student performance and engagement, allowing for timely interventions to support struggling learners (Aljaber, 2021).

2.5 Hybrid Learning in Higher Education

Hybrid learning has gained significant traction in higher education due to its potential to address diverse learner needs and improve educational outcomes. In universities, this model has been particularly effective in integrating theory with practice, enabling students to engage in both interactive discussions and hands-on experiences. Research has shown that hybrid learning can enhance critical thinking, collaboration, and problem-solving skills, particularly in disciplines that require a combination of cognitive and practical competencies, such as medicine, engineering, and business administration (Bernard et al., 2014; Owston et al., 2019). The shift toward hybrid learning in higher education has been catalyzed by the demand for more flexible and inclusive learning environments. For instance, hybrid models allow working students to balance professional and academic responsibilities while providing opportunities for students in remote areas to access high-quality education. Furthermore, universities have increasingly adopted hybrid learning as a response to the global disruptions caused by the COVID-19 pandemic, which underscored the importance of resilient and adaptable teaching frameworks (Hodges et al., 2020).

A meta-analysis by Means et al. (2013) highlighted that students in hybrid courses perform better than those in purely face-to-face or fully online settings. Similarly, Alammary et al. (2021) examined the impact of hybrid learning in the Arabic Gulf countries, including Saudi Arabia, and found that the model improved student engagement and knowledge retention in higher education institutions. The use of advanced technologies, such as virtual labs, simulations, and learning management systems, has further enhanced the effectiveness of hybrid learning in these contexts (Hrastinski, 2019).

2.6 Recent Studies on Hybrid Learning: Saudi Arabian Experiences

In Saudi Arabia, hybrid learning has gained increasing attention, particularly following the COVID-19 pandemic, which accelerated the adoption of digital education models. Several studies have explored the implementation and outcomes of hybrid learning in Saudi higher education. For instance, Al-Fraihat et al. (2020) investigated the factors influencing the effectiveness of hybrid learning in Saudi universities and highlighted the significance of technological infrastructure, institutional support, and faculty readiness. Their findings revealed that well-prepared faculty and students significantly enhanced the success of hybrid learning environments. Aljaber (2021) focused on the role of hybrid learning in improving language acquisition among Saudi students, demonstrating how a combination of online tools and in-class interactions enhanced engagement and proficiency. Similarly, a study by Altuwairesh (2021) examined the experiences of students in health sciences programs, where hybrid learning was utilized to blend theoretical knowledge with clinical practice. The study found that students appreciated the flexibility of online modules while benefiting from hands-on activities during face-to-face sessions. Research conducted at King Abdulaziz University (KAU) by Alshahrani et al. (2022) explored the impact of hybrid learning on STEM education. Their study emphasized how innovative teaching tools, such as virtual labs and collaborative platforms, enhanced critical thinking and problem-solving skills among students. Furthermore, a recent study by Alqahtani et al. (2023) examined how hybrid learning supports inclusivity in Saudi higher education, particularly for female students, by enabling them to balance academic responsibilities with cultural and familial obligations.

Hybrid learning represents a transformative approach to education, offering a blend of flexibility, engagement, and accessibility. Its application in higher education has proven particularly effective in enhancing student outcomes, promoting inclusivity, and fostering active learning across disciplines. Recent studies in Saudi Arabia illustrate the growing adoption of this model and its positive impact on various fields, including language education, health sciences, and STEM. While challenges such as technological barriers and faculty readiness persist, the benefits of hybrid learning are well-documented, making it a vital component of modern higher education. As Saudi Arabia continues to pursue its Vision 2030 objectives, hybrid learning is poised to play a critical role in driving educational innovation and excellence.

3. Methodology

This study adopts a qualitative research design to obtain an in-depth understanding of lecturers' and students' perceptions of hybrid learning. The participants comprise five lecturers specializing in teaching English for Medicine at the University of Bisha, and 10 students specializing in Medicine. Data collection was conducted through multiple methods to ensure a comprehensive exploration of the topic:

1. **Interviews:** Semi-structured interviews were conducted to gather detailed insights into the lecturers' and students' experiences and perspectives regarding the use of hybrid learning.
2. **Observations:** Classroom observations were carried out in both face-to-face and Blackboard-based online settings to identify practical challenges, teaching dynamics, and the integration of hybrid learning strategies.
3. **Document Analysis:** Teaching materials, course structures, and specifications were reviewed to examine the alignment of instructional content with hybrid learning methodologies.

The data collected were analyzed descriptively through thematic analysis to uncover recurring themes and patterns associated with the implementation of hybrid learning. This approach provided a nuanced understanding of the challenges, benefits, and practical considerations associated with employing a hybrid learning model in teaching English for Medicine.

4. Results and Discussion

The research findings highlight that the lecturers employed a hybrid learning approach by integrating both synchronous and asynchronous teaching methods. Face-to-face sessions were predominantly utilized for interactive discussions, in-class activities, and practical exercises—components essential for cultivating students' medical communication skills. Concurrently, the Blackboard platform was leveraged for delivering lectures, sharing course materials, hosting quizzes, and facilitating online activities and assignments. This dual approach not only provided students with access to diverse learning resources but also encouraged active participation in various learning activities and allowed for comprehensive assessment using multiple evaluation tools. Additionally, the lecturers underscored the importance of maintaining a reliable internet connection and implementing a well-structured hybrid course design. Blackboard was particularly instrumental in streamlining course management by offering features for announcements, schedules, resources, grading, and feedback, ensuring that students remained informed and engaged throughout the learning process. Furthermore, the integration of multimedia tools, such as video demonstrations and online discussion forums, significantly enriched the learning experience. These tools promoted collaboration, interactivity, and deeper engagement, thereby enhancing the overall effectiveness of the hybrid learning model in teaching English for medical purposes.

4.1 Challenges in Using Blackboard as a Hybrid Learning Method

Despite its advantages, employing Blackboard as part of a hybrid learning model presents several challenges that educators and students must navigate to ensure its effectiveness. These challenges include:

1. **Technological Issues:** A common challenge reported by lecturers is the prevalence of unstable internet connections and limited access to devices among students. These issues frequently disrupted live online sessions, delayed the submission of assignments, and undermined the continuity of learning. Additionally, system downtimes or technical glitches in the Blackboard platform occasionally resulted in lost data or interrupted activities, further complicating its use.
2. **Student Engagement:** Maintaining student motivation and active participation during asynchronous activities emerged as a significant challenge. Without direct supervision, some students struggled with self-discipline and time management, leading to incomplete tasks and disengagement. Furthermore, the lack of immediate feedback during asynchronous learning created a sense of isolation for some students, negatively impacting their learning experience.
3. **Workload Management:** Hybrid learning significantly increased lecturers' workload. They were required to design and deliver both in-person and online materials while simultaneously managing assessments, feedback, and technical aspects of the Blackboard platform. This dual responsibility often led to stress and time constraints, making it difficult to maintain consistent quality across both modalities.
4. **Skill Gaps**: Many lecturers and students encountered difficulties in navigating digital tools and Blackboard features, particularly at the initial stages of implementation. These skill gaps highlighted the need for targeted training and ongoing technical support. Without sufficient guidance, users struggled to effectively utilize the platform's full capabilities, such as creating engaging content, managing online discussions, and leveraging analytics.
5. **Limited Interaction in Online Components**: Although Blackboard offers tools for interaction, such as discussion boards and collaborative spaces, lecturers reported that these features were not always effectively utilized by students. The lack of real-time engagement in asynchronous components sometimes resulted in a disconnect between online and face-to-face activities, diminishing the overall cohesiveness of the hybrid learning experience.

6. **Assessment Challenges**: Conducting fair and effective assessments in a hybrid learning environment posed another challenge. Lecturers faced difficulties in designing assessments that accurately measured student learning across both synchronous and asynchronous modalities. Additionally, concerns over academic integrity, such as plagiarism or cheating during online quizzes and exams, added to the complexity of managing assessments through Blackboard.
7. **Customization Limitations**: While Blackboard is a versatile platform, some lecturers found it difficult to customize course materials and activities to suit specific learning needs. The rigidity of certain tools and the steep learning curve required to fully utilize advanced features sometimes hindered the creation of dynamic and tailored learning experiences.
8. **Resistance to Change**: Resistance from both lecturers and students to adopt new technologies and teaching methodologies also emerged as a barrier. Some individuals preferred traditional teaching methods and were hesitant to embrace the digital elements of hybrid learning, slowing the transition and affecting the model's success.

4.2 Benefits in Using Blackboard as a Hybrid Learning Method

For Lecturers: Hybrid learning offers substantial benefits for lecturers, enabling them to adopt innovative teaching strategies, leverage advanced technologies, and pursue continuous professional growth. Recent studies, such as Al-Qahtani and Al-Muwallad (2021), highlight how the integration of hybrid models fosters the creation of interactive and engaging environments by combining multimedia tools, online simulations, and collaborative activities. This approach not only enhances the quality of instruction but also promotes active learning, aligning with modern pedagogical best practices. The flexibility of hybrid learning further allows lecturers to balance practical, hands-on activities during face-to-face sessions with the delivery of theoretical content through online platforms like Blackboard. Alshehri (2022) supports this finding, emphasizing that hybrid learning's dual-mode system enhances adaptability in teaching methods, catering to the diverse and evolving needs of students in higher education. Moreover, the integration of technology within hybrid models encourages lecturers to explore innovative pedagogical approaches. As Aljuaid et al. (2022) assert, this process ensures that teaching strategies remain relevant and effective in a rapidly changing educational landscape. Additionally, the use of platforms such as Blackboard equips lecturers with robust tools for managing their courses efficiently. These platforms enable tracking of student performance, delivery of personalized feedback, and seamless course organization. Ahmed et al. (2023) underscore that these functionalities not only increase the efficiency of teaching but also enhance meaningful interactions between lecturers and students, thereby enriching the overall educational experience. By streamlining course management and fostering engagement, hybrid learning supports lecturers in delivering high-quality education while meeting the demands of modern academia.

For Students: Hybrid learning offers significant advantages for students by enhancing accessibility, fostering essential skills, and integrating practical learning opportunities. According to Alenezi (2023), students appreciate the ability to access materials and resources anytime and anywhere through hybrid models. This flexibility caters to diverse learner needs, breaking traditional barriers to education and promoting inclusivity for those managing academic, personal, and professional responsibilities. These findings underline the hybrid model's role in democratizing education, guaranteeing that every student has equal opportunities to achieve success. Hybrid learning also cultivates critical skills such as self-discipline, time management, and self-directed learning through its combination of synchronous and asynchronous activities. Alharbi (2022) corroborates this, demonstrating that students in hybrid environments develop these competencies, which are vital for academic achievement and future career readiness. The incorporation of digital tools—such as interactive assignments, discussion forums, and multimedia resources—further enhances student engagement and collaboration, creating a rich and participatory learning experience. Moreover, hybrid learning bridges theory and practice by providing practical applications during face-to-face sessions, such as simulations and real-world case studies. Alghamdi et al. (2023) highlight that experiential learning within hybrid models fosters deeper comprehension and retention of knowledge, particularly in professional disciplines. Platforms like Blackboard play a crucial role in this process by offering students continuous learning opportunities through video lectures, quizzes, and personalized feedback. These features create a dynamic and supportive environment, ensuring students remain engaged and consistently improve their performance. The integration of hybrid learning aligns with recent educational frameworks that emphasize active and experiential learning. By blending flexibility, accessibility, and hands-on experiences, hybrid learning ensures students are well-prepared to meet the demands of the modern workforce. Additionally, it nurtures lifelong learning habits, equipping students with the skills and adaptability needed to thrive in a rapidly evolving world. These findings collectively demonstrate how hybrid learning not only enhances the student experience but also meets the broader objectives of contemporary higher education.

5. Conclusions and Suggestions

This study highlights the transformative potential of hybrid learning in higher education, particularly in teaching specialized courses such as English for Medicine. The findings emphasize the dual benefits of hybrid learning for lecturers and students. For lecturers, it offers opportunities to adopt innovative teaching strategies, integrate advanced technologies, and enhance course delivery through platforms like Blackboard. For students, hybrid learning fosters accessibility, self-discipline, and skill development, while

bridging theoretical knowledge and practical applications. However, the implementation of hybrid models is not without challenges. Issues such as technological limitations, skill gaps, and workload management underscore the need for strategic planning and institutional support to maximize its effectiveness. Overall, hybrid learning presents a promising avenue for creating inclusive, flexible, and engaging educational experiences.

Suggestions:

1. **Technological Infrastructure Improvement:**
   Institutions should invest in robust technological infrastructure, including high-speed internet, updated software, and technical support, to address technological challenges faced by both lecturers and students.
2. **Comprehensive Training Programs:**
   Regular training sessions for lecturers and students on utilizing hybrid platforms, such as Blackboard, are essential to ensure effective usage and minimize skill gaps.
3. **Enhanced Student Engagement Strategies:**
   To address engagement challenges, educators should incorporate interactive tools such as gamified learning, virtual simulations, and multimedia content to sustain student interest and participation in asynchronous activities.
4. **Balanced Workload Management:**
   Universities should provide support for lecturers by offering resources, such as instructional design assistance and pre-developed online materials, to reduce the workload associated with preparing hybrid courses.
5. **Feedback and Evaluation Mechanisms:**
   Continuous feedback from both lecturers and students should be collected to assess the effectiveness of hybrid learning and make necessary adjustments to improve its implementation.
6. **Integration of Experiential Learning Opportunities:**
   Face-to-face sessions should prioritize practical applications, such as simulations and real-world case studies, to enhance students' learning outcomes and their readiness for professional environments.
7. **Policy Development:**
   Universities should establish clear policies and guidelines for hybrid learning to standardize its implementation while maintaining flexibility to cater to diverse student needs.

By addressing these areas, educational institutions can optimize the benefits of hybrid learning and ensure its sustainable integration into higher education settings, ultimately improving teaching and learning outcomes.

Funding: This research received no external funding
Conflicts of Interest: The author declares no conflict of interest.
ORCID iD: https://orcid.org/0009-0006-9561-3388
Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

[1] Ahmed, H., Omar, F., & Saleh, A. (2023). Enhancing lecturer-student interactions in hybrid learning using Blackboard. Learning Environments Research, 26(1), 22–36. https://doi.org/10.1007/s10984-022-09408-w
[2] Alenezi, M. (2023). Accessibility and inclusivity in hybrid education models. International Review of Research in Open and Distributed Learning, 24(2), 67–89.
[3] Al-Fadhli, H. M. (2020). Student engagement in hybrid learning using Blackboard in higher education: A Saudi perspective. Education and Information Technologies, 25(2), 1227–1238. https://doi.org/10.1007/s10639-019-10024-5
[4] Al-Fraihat, D., Joy, M., & Sinclair, J. (2020). Evaluating hybrid learning in higher education: A Saudi Arabian case study. Computers & Education, 157, 103968. https://doi.org/10.1016/j.compedu.2020.103968
[5] Alammary, A., Sheard, J., & Carbone, A. (2021). Blended learning in Gulf countries: A review of studies and future directions. The Internet and Higher Education, 50, 100819. https://doi.org/10.1016/j.iheduc.2021.100819
[6] Alghamdi, H., Almutairi, F., & Alotaibi, K. (2023). Bridging theory and practice: Experiential learning in hybrid education. Innovations in Education and Teaching International, 60(2), 145–160. https://doi.org/10.1080/14703297.2022.2110010
[7] Alharbi, S. (2022). Building critical skills in hybrid learning environments. Journal of Applied Research in Higher Education, 14(3), 776–791. https://doi.org/10.1108/JARHE-11-2021-0403
[8] Aljaber, A. (2021). The role of hybrid learning in improving language acquisition: Insights from Saudi Arabian universities. E-Learning and Digital Media, 18(4), 367–385. https://doi.org/10.1177/2042753020982834
[9] Aljuaid, R., Alotaibi, M., & Aldahlan, A. (2022). Innovative pedagogical practices in hybrid learning environments. Journal of Educational Technology Systems, 51(2), 132–148. https://doi.org/10.1177/00472395221054695

[10] Alqahtani, S., & Al-Muwallad, A. (2021). The impact of hybrid learning on interactive and engaging classrooms. Education Technology & Society, 24(4), 112–125.
[11] Alqahtani, S., Alosaimi, A., & Aldossary, R. (2023). Hybrid learning and female student inclusivity in Saudi Arabia: Cultural and academic implications. Higher Education Research & Development, 42(3), 456–472. https://doi.org/10.1080/07294360.2023.2169283
[12] Alshahrani, M., Hassan, M., & Abdulaziz, M. (2022). Hybrid learning for STEM education: A case study from King Abdulaziz University. International Journal of STEM Education, 9(1), 12. https://doi.org/10.1186/s40594-022-00332-4
[13] Altuwairesh, N. (2021). Blending theoretical and clinical training in hybrid learning for health sciences education. Medical Education Online, 26(1), 1975079. https://doi.org/10.1080/10872981.2021.1975079
[14] Azevedo, J. P., Hasan, A., Goldemberg, D., Iqbal, S. A., & Geven, K. (2020). Learning losses due to COVID-19 could cost this generation of students close to $10 trillion. World Bank Blogs. https://blogs.worldbank.org
[15] Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. Journal of Computing in Higher Education, 26(1), 87–122. https://doi.org/10.1007/s12528-013-9077-3
[16] Boelens, R., De Wever, B., & Voet, M. (2017). Four key challenges to the design of blended learning: A systematic literature review. Educational Research Review, 22, 1–18. https://doi.org/10.1016/j.edurev.2017.06.001
[17] Czerniewicz, L., Agherdien, N., Badenhorst, J., et al. (2019). A wake-up call: Equity, inequality, and COVID-19 emergency remote teaching and learning. Postdigital Science and Education, 2(3), 946–967. https://doi.org/10.1007/s42438-020-00187-4
[18] Garrison, D. R., & Vaughan, N. D. (2008). Blended learning in higher education: Framework, principles, and guidelines. Jossey-Bass.
[19] Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), Handbook of distance education (pp. 333–350). Routledge.
[20] Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Educause Review. https://er.educause.edu/articles
[21] Hrastinski, S. (2019). What do we mean by blended learning? TechTrends, 63(5), 564–569. https://doi.org/10.1007/s11528-019-00375-5
[22] Khalil, H., Mansour, M., & Al-Mahdy, A. (2021). Enhancing collaboration in hybrid learning environments: A case study using Blackboard. International Journal of Educational Technology in Higher Education, 18(1), 34. https://doi.org/10.1186/s41239-021-00280-2
[23] Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. Teachers College Record, 115(3), 1–47.
[24] Owston, R., York, D., & Murtha, S. (2019). Student perceptions and achievement in a university blended learning strategic initiative. Internet and Higher Education, 42, 1–10. https://doi.org/10.1016/j.iheduc.2018.12.002