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Research Article

Blended Learning Curriculum Approach: A Systematic Review of the Challenges for Students

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Abstract

This study generated a Systematic Literature Review (SLR) by following proven and stringent guidelines. PRISMA 2009 is used to retrieve 15 study papers that were selected and analysed in the SLR. The scientific research on the complexities of blended learning program approaches to students has been examined. The papers' publishing years range from 2015 to 2020. The methodological designs, foci, and results of the experiments have all been thoroughly examined. According to the study, the major problems and challenges that students faced in learning included getting distracted in the classroom due to large class size, inaccessibility to online lessons due to Learning Management System (LMS) severe crash, complexity of internet communication with teachers and classmates, lack of skills and experience with digital tools, and time management for learning.

Index Terms: Blended Learning, Challenges, Systematic Review, Students

1. Introduction

Blended learning is a growing trend in the educational field that combines online and face-to-face learning. The terms "blended," "hybrid," "technology-mediated instruction," "web-enhanced instruction," and "mixed-mode instruction" are often used interchangeably in current research literature. Blended learning refers to the variety of possibilities made available by integrating internet and streaming media with traditional educational formats that necessitate the physical co-presence of teachers and the students (Nuruzzaman, 2016). Generally, blended learning is becoming more prevalent in the classroom. It is a modern approach that combines online and face-to-face modes. The two methods integrate and mix each other, ‘blending' and enhancing a constructive learning atmosphere (Capone, Caterina & Mazza, 2017).

While some reports show that blended learning has a variety of promising educational benefits, others point to the drawbacks of blended learning (Gokce & Murat, 2018). The current article analyzes how the literature suggests that there are important barriers to developing blended learning, and then looks at how previous research has implemented blended courses to address these issues. As a result, 15 academic articles on blended learning that were reviewed between 2015 and the end of 2020 were listed and systematically analyzed in the current report.

2. Study Objectives

New technologies are aiding in the development of the formal education sector by providing a variety of learning delivery and networking options that can meet the need for continuing education at a low cost (Al-Samarraie & Saeed, 2018). Finally, policymakers are interested in exploring how to use new technologies to engage remote learners in collaborative learning sessions. Furthermore, considering the on-going need for universities in developed countries to build capability, educational policymakers have no choice but to take advantage of technical and pedagogical advancements in the formal education field.

Previous studies show that a blended learning approach will increase student success or, at the very least, do little harm to the student learning process as compared to conventional instruction (Chung & Khe, 2017). Moreover, one of the big drawbacks of adopting a blended learning approach is teachers' heavy workload in

designing blended learning resources, as well as students' disengagement from out-of-class learning. In reality, according to prior feedback, some students were unfamiliar with this new learning style and chose to miss the pre-class activities. Students of some blended learning classes were disappointed with the blended learning approach due to a significant period of pre-class planning time.

3. Method

Two research questions were explored in this study: ‘What are the most common methods, techniques, and features used in blended learning activities?' and ‘What are the main obstacles to blended learning from the viewpoint of students?' We used the literature as the primary source for addressing these questions in order to get a thorough understanding of these issues. Tranfield, Denyer, and Smart (2003) suggested a method for performing analysis analysis, which was used to structure the report.

4. Searching & Screening

Reports on the importance of blended learning in higher education were included in the database scan. Scopus, Cambridge Journals Online, Index to Theses, Oxford University Press (journals), Science Direct, ERIC (Education Resources Information Centre), Emerald, Taylor and Francis Group, and IEEE were all used to find potential articles (Institute of Electrical and Electronics Engineers). Beginning in 1998, blended learning and eLearning have seen dramatic progress in the last two decades, and our quest was undertaken from 2015 to 2020. We used different combinations of keywords when we executed the search, such as “blended learning for higher education students”, “blended learning and students”, “hybrid learning for higher education students”, “mix-method learning and students”, “web-enhance instructor”, and “challenges for blended learning in a university context” and others. The papers were then saved and primed for further scanning and collection. Certain inclusion criteria were used to weed out research that didn't suit the review's scope. The following is the conditions for the studies:

1) It is empirically based.

2) Collaborative learning through blended learning.

3) Concentrating on one or more collaborative tasks.

4) Include school and university students in the process.

A total of 230 papers were collected and screened from the databases listed. Just 95 papers, on the other hand, met all of the conditions for inclusion. Reports that did not use or properly address the role of blended learning in higher education were omitted from the list of 95. This resulted in 32 publications that looked positive (see Fig. 1). Three experts evaluated the 32 studies for quality guarantees, as explained in the following section.

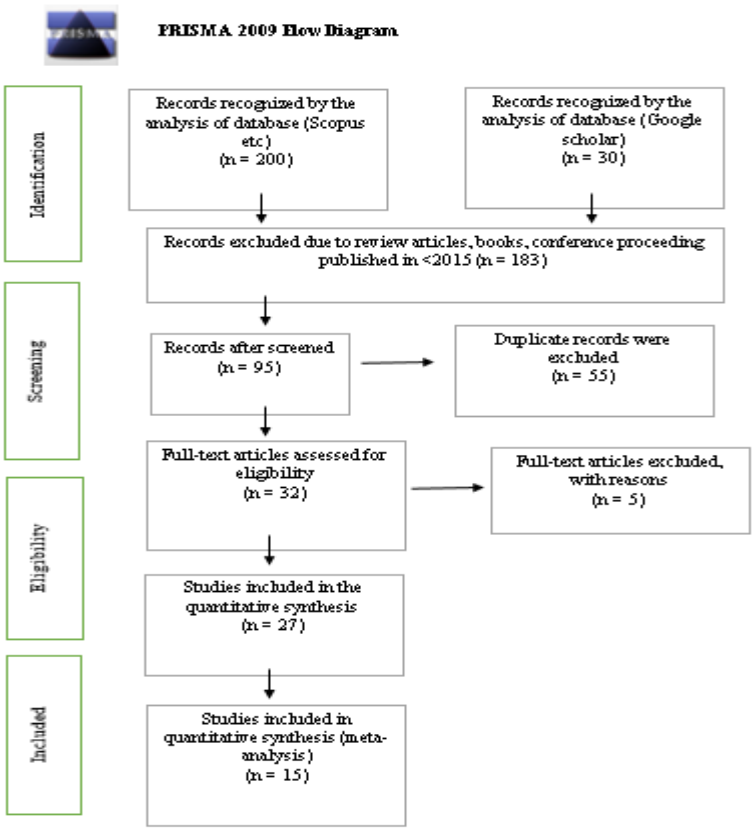

Figure 1. The flow diagram of the study. (Adapted from Shaffril et al., 2019)

5. Quality Assurance

Three experts in the field assigned a score of 1 to 3 if the following conditions were met:

1. How significant is the study explanation in terms of the application of blended learning?
2. Are the activities mentioned in depth in the text?
3. How suitable are the tools and analysis?
4. How important is the article's specific emphasis (including scope and sample) to our research?
5. Will the results be relied on to include answers to the questions?
6. How generalizable are the results to the target population?

The weight of each article was determined by summing scores on each of the six dimensions given by the three experts and was based on the available proof (18 scores). We rated an article to be low quality (1) if it received six or fewer points, medium quality (2) if it received seven to thirteen points, and high quality (3) if it received more than thirteen points. The content of the papers was determined by a quality audit, which revealed that 10 articles were classified as high quality, 5 as medium quality, and only 4 as poor quality. Although the details available in the chosen articles serve a reason, only articles with high and medium scores were used in these works which are 15 articles.

6. Results

No	Article	Purpose	Outcomes
1	Kenney & Newcombe	The difficulties faced and techniques used in pilot testing a blended instructional approach in a broad class inside a faculty of education at a medium-sized university.	The author anticipates that as the university spends more on online education, more faculty members will become involved in online teaching practises, and the amount of funding and assistance at her

			institution will increase
2	Bidarra & Rusman, 2017	Propose the Science Learning Activities Model, a modelling paradigm to promote science education by blended learning that is built on a participatory and immersive approach enabled by ICT-based resources (SLAM)	The design paradigm suggests three design dimensions: context, technology, and pedagogy, and seeks to integrate learning in structured and informal environments through blended learning scenarios leveraging today's adaptive, interactive, and immersive technologies (e.g. mobile, augmented reality, virtual reality)
3	Morton et al., 2016	Students' perspectives on a blended learning package contained inside a module taken as part of an intercalated BSc in Pharmacology.	Undergraduate students studying this subject found blended learning to be acceptable and interesting. They shared a preference for more blended learning in their classes, but only if it was well structured, of high quality, and accompanied by tutorials. Students recognised that the 'blend' was more valuable than strictly online instruction
4	Adekola, Dale, Gardinerr & Smith, 2017	In this article, students who have transited to blended learning at Glasgow University as part of their QAA Student Transfer Job Themes were examined.	The transitional experiences of students at home and international/postgraduate level are similar, and international post-graduates face additional difficulties in terms of acklimating into UK higher schooling (UHE), particularly with regard to shorter study programs, and where there are variations in pedagogy and language.
5	Post, Deal & Hermanns, 2015	This thesis analyzed the studies of two medical/surgical classes to "flip the classroom" or also known as "blended learning classroom".	The flipped classroom or blended learning classroom will improve the learners' experience in medical/operative classes, but this revolutionary phase presents difficulties.
6	Sriwichai, 2020	This article seeks to examine the ability of students to learn English through a blended learning experience and to examine difficulties and issues facing students.	The results showed that students' preparation for learning English through blended learning was at marginally high level.
7	Namyssova, Tussupbekova, Helmer, Malone, Afzal & Jonbekova, 2019	This exploratory thesis examined the feasibility of a blended learning course on the growth of teachers and educational leaders in Kazakhstan, which studied the masters of education science at the University of Nazarbayev (NUGSE).	The students were mostly enthusiastic about the course. It helped them to build leadership skills such as time management, reflection, self-reliance and trust in public presentations.
8	Yusoff, S., Yusoff, R., & Md Noh, 2017	This article explains how blended learning was carried out in a higher education institution, with an emphasis on the least skilled students.	To conclude, while a blended learning approach has its advantages, it must be adapted to the cognitive and learning style of the various students.
9	Ma, Li & Liang, 2019	This paper reports the findings of a study of the pedagogical problems including the history of metaliterary learning using an immersive communication system and the advantages and challenges of combining metaliterary practice with blended learning.	This paper takes the experience of delivering blended courses at XJTLU into account and suggests that the integration of metaliterary production is useful to enhance the blended learning experience.
10	Capone, De Caterina & Mazza, 2017	This article discusses the theories and pedagogical ramifications of two approaches to e-Learning (Blended Learning and Flipped Learning). It also shows how some of these methodologies have been carried out and organized, both in the English language and in literary lessons in high schools via the digital environment.	The key goals of combined learning may be to educate students how to use modern networking networks and increase the availability of educational opportunities. This approach further increases the curiosity and autonomous learning of students and allows them to study and plan for the future at their own pace.
11	Nuruzzaman, 2016	This paper examines instruction and preparation practices of students with an emphasis on some new pedagogical approaches.	Students must be self-motivated and sincerely involved in a blended or hybrid course. But it is a great hope of the current generation. Most students cannot demonstrate sufficient focus and timely

			involvement in this learning process. It has produced a new wave of debt-ridden people; debt of early jobs! Thus, most faculties also rely on teaching from person to person.
12	Lapitan, Tiangco, Sumalinog, Sabarillo & Diaz, 2021	During the COVID-19 pandemic, the transformation to distance learning created a real problem both for teachers and students. A blended learning strategic approach for teaching and learning the physical chemistry 1 and Analytical Chemical Chemistry for chemical engineering students is used in the face of these difficulties during the undergraduate Chemical course of the University of Santo Tomas.	The survey also showed that the DLCPA approach satisfies most students. This technique is also considered a handy and effective option, which can be extended to other undergraduate Chemistry courses for complete online instruction. In general, in post-COVID-19 higher education, the conclusions and observations in this report will add useful opportunities for more blended training.
13	Rossiter & Day, 2015	This report outlines and addresses the evolution and application of blended learning techniques in a PP curriculum in Australia designed to facilitate student adaptation to the profession of nurses.	Adopting a blended learning approach based on effective adult learning concepts, along with a strong understanding of the practice in clinical environments with students, is one way in which students learn about their potential position by sequentially merging face-to-face and online learning possibilities.
14	Selvaras, 2019	The Sri Lankan Open University (OUSL) is the only institution in Sri Lanka to offer Open and Distance Learning Legal Education (ODL). In order to assess usability and difficulties, this analysis analyses the use of technologies in the learning and teaching law in the ODL under Usl.	The results indicate that most students are aware of blended learning and have access to technology through mobile telephones. Although they prefer to integrate blended learning with learning legislation, they do not want to learn fully online. The most favourite types of students' combination of social media and smartphone apps are. The internal staffs often recognizes that they have experience and access to the use of technologies in teaching law and that external staff are confronted with obstacles that need proper instruction.
15	Chowdhury, 2018	E-learning is a very common phenomenon in the education field today, and blended learning is one of the easiest ways to apply it. However, Bangladesh is very recent where blended education systems are implemented in higher education institutions (HEIs). This paper explores the idea of blended learning, how a blended learning curriculum can be constructed, the advantages of blended learning and certain requirements to incorporate a blended learning programme.	HEIs in Bangladesh will achieve radical changes both in the standard of education and the affordability and efficiency of learning programs with the help of the mixed learning instruments. Moreover, any creative school reform can only succeed if all the main players – Students, parents, teachers, university leaders, academics and policy-makers – completely embrace and implement it.

7. Results And Discussion

- The studies' general characteristics

This section briefly describes the studies' general features, such as their distribution over time and learner groups (types of participants).

The first article that looked at blended learning was conducted in 2000, as according to the research we looked at. Also in this early study, researchers found that advances in instructional technology provide unique ways for students to learn and teachers to deliver learning materials (Lage, Platt, & Treglia, 2000). The analysts have discovered a promising outcome, with the majority of students and the teacher favoring the blended learning model. The biggest disadvantage of blended learning schools in comparison to conventional classrooms was the high cost of technology in the early years (Lage et al., 2000). Even so, since access to technology is less costly now than it was in the past, the financial expense issue does not impact blended learning classrooms today. Blended learning classroom studies became common among academics after more than a decade, and the number of such studies began to gradually increase after 2012. The growing availability of Internet technology

may be one reason for this rise. The term "blended learning" was first used in a Horizon Report from 2012 (Johnson, Adams, & Cummins, 2012). Blended learning was identified as a promising model in that study, with the potential to open doors to new educational approaches. It was also stressed the importance of having a stable Internet access and allocating class time for consultation and conversation. According to the previous report, 79 percent of all blended learning trials were completed between 2015 and 2016. The availability of technology and the Internet is growing, especially in developed countries. As a result, it seems that interest in blended learning will continue beyond 2016, with further studies dedicated to it.

8. Conclusion

This review provides a systematic literature analysis that reveals the problems facing students in the online part of blended education. While the knowledge base is rich, the relentless progress in technical advances and the dynamic nature of human behaviour make it extremely difficult to recognize all of the problems. Furthermore, this present review has spoken about the idea of blended learning and the benefits of blended teaching over other similar teaching methods. The authors then reviewed 230 studies published in mixed learning from 2015 to 2020 using the literature review approach of Transfield, Denyer and Smart (2003) to recognize problems identified in the online portion of blended learning. In the view of students, the authors had analysed and classified the difficulties. They also learned that researchers and blended learners have devoted more resources to solving the overall complexities of blended learning architecture, compared the types of blended learning and other blended learning measurements. After all, the authors learned as well that the online aspect of blended learning focuses more on the challenges facing students, thus giving comparatively less attention to the challenges facing teachers and educational institutions. They have learnt that students have difficulties with self-regulation and are unable to use technologies for their studies effectively. This analysis study will also serve as a guide to refocusing blended learning studies to solve the problems found for students in the blended learning aspect, which deter the potential of blended learning modes.

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