



**RESEARCH PAPER**

**A Blended Learning Approach to Improve Student's Performance  
in Higher Education**

**Dr. Muhammad Shahzad Ashfaq**

Postdoctoral Fellow, Faculty of Education, International Islamic University, Islamabad, Pakistan

\*Corresponding Author: [drmsashfaq@gmail.com](mailto:drmsashfaq@gmail.com)

**ABSTRACT**

A blended learning approach is an effective approach in integrating the face-to-face method and the use of information communication technologies into teaching and learning. Blended learning provides students with the best practices from both traditional classroom practices to modern technological learning. The objective of this study is to critically review the previous researches about blended and traditional learning in various disciplines to highlight the advantages and challenges. The researcher used the literature review method to synthesize several previously published publications to understand the notion of blended learning. From this study, we found that blended setting encourages the foundation of creating independent learners with practical critical thinking skills that are valuable for the current working situations. Blended learning is also a solution for classroom deficiencies as well as teaching and learning flexibility. Successful implementation of a blended learning approach will go a long way in improving student pass rates and driving an upsurge in the programme completion ratio.

**KEYWORDS** Blended Learning, E-Learning, Face To Face Interaction, Information Technology

**Introduction**

We live in a world that is constantly changing. In recent decades, the world of education has been transformed by the rapid revolution in computer and internet technology, and according to Malter and Rindfleisch, (2019) "new knowledge is being created and established at an astonishing rate". This has revolutionized teaching and learning, especially distance learning. The introduction of the World Wide Web (WWW) has increased the demand for distance learning, resulting in the emergence of concepts such as online learning and e-learning. Online learning systems are widely used in higher education, and much research has been conducted to identify both their advantages and disadvantages (Aljawarneh, 2020).

The traditional method of classroom learning, where teachers use a chalkboard and lecture, has been a concern for many students. As a result, online learning, also known as e-learning, has gained popularity and has been specifically adopted by public universities. However, e-learning alone may not be enough to achieve effective learning; it needs to be combined with face-to-face learning. This approach is known as blended learning, which has proven to be the most effective learning system.

In a traditional classroom, a teacher presents, interacts, discusses, demonstrates, and communicates with students face-to-face. Students also interact and communicate with each other in person. The teacher is responsible for distributing all the hands-on assignments and exercises to the students. This type of teacher-led classroom learning is a proven method of learning that provides ample opportunities for interaction between the teacher and students, as well as between the students themselves. However, the

requirement for both the teacher and students to be present in a classroom at a designated time and date can be challenging for some. Additionally, the lack of equipment in the classroom may hinder the effectiveness of the teaching and learning process.

The integration of Information and Communication Technology (ICT) in teaching and learning has revolutionized the way curriculum is design, how we learn, and even how we communicate. E-learning, in particular, has become increasingly significant for teachers and students. Virtual classroom learning has enabled us to overcome the difficulties and limitations posed by traditional classroom learning, providing a variety of resource avenues, global networking opportunities, and information sharing for educational communities. However, e-learning has its limitations also. It requires greater discipline from students and can sometimes be boring.

The incorporation of technology in teaching and learning activities has piqued the interest of practitioners in higher education institutions (HEIs). Many HEIs have begun to adopt and implement information and communication technology (ICT) solutions, such as e-learning, to provide flexible teaching and learning opportunities both inside and outside the classroom. This implementation is referred to as technology-enhanced learning (TEL).

The e-learning environment also has the following disadvantages; likewise inhibits the individual's socialization process, resulting in a lack of personal communication. A new environment has appeared. This new environment is a combination of e-learning and traditional learning environments. It is called blended learning or hybrid learning. The main purpose of blended education was to overcome the drawbacks of online-only education. Both pure e-learning and traditional learning have some weaknesses and strengths, so it is better to combine the strengths of both learning environments and develop a new delivery method called blended learning (Azizan, 2010). Against this background, the use of blended teaching is rapidly increasing, as teachers believe that a variety of teaching methods improves student satisfaction with both the learning experience and the learning outcomes (Lim & Morris, 2009).

Effective communication between teachers and students is crucial for improving attendance and ensuring students have completed their courses. However, traditional classroom learning and pure e-learning both have limitations that can hinder teaching and learning efficiency.

The next section presents a detailed review of the relevant literature on online and blended learning. We further discuss various interpretations of the term "blended learning" and its usefulness and effectiveness.

## **Literature Review**

### **Blended Learning**

Blended learning is an approach that combines the strengths of face-to-face and online learning methods. It delivers teaching and learning activities through both synchronous and asynchronous formats. The blended learning model provides a comprehensive learning experience for both teachers and learners. It enables them to enjoy the benefits of physical classroom formats such as lectures, books, labs, and handouts while integrating telecommunication technologies such as computers, the Internet, World Wide Web, and mobile phones in their teaching and learning processes.

Blended learning is the combination of traditional classroom learning and online delivery learning. By leveraging technology, blended learning enhances the learning

experience by providing a variety of resources. In a comprehensive literature review, different researchers have provided precise definitions for blended learning. According to Kim, (2007) blended learning involves using information technology to deliver learning materials outside the traditional classroom setting. Kudrick et al. (2009) describe blended learning as the combination of physical classroom learning and online learning to improve learning outcomes. Kim et al. (2008) define blended learning as the mixing of traditional face-to-face teaching with online teaching. According to Singh (2003), blended learning involves the combination of multiple delivery media designed to complement each other and promote learning and application of learned behaviour.

Blended learning has become a popular approach at higher education institutions (HEIs). This method combines various delivery modes, offering more choices and proving more effective. Blended learning expected to develop social communication within the HEI community, increase learners' competence and confidence, provide a quality learning experience, and foster critical thinking in the learning environment. It integrates technology as an effective tool for delivering content to learners. According to Rosset et al. (2003), blended learning is an integrated strategy for delivering on promises about learning and performance. It involves planned combinations of approaches such as coaching by a supervisor, participation in an online class, having breakfast with colleagues, reading manuals on the beach, forming collegial relationships, and attending seminars, workshops, and online communities. Blended learning has been found to provide links to three criteria: social presence, cognitive presence, and teaching presence (Garrison et al., 2000).

All of the literature on blended learning shows that there is no uniform definition of blended learning. Boelens, et al., (2015) defined blended learning as a combination of teaching methods. On the contrary, Zawacki et al., (2019) argue that his systematic and strategic combination of ICT tools in academic courses introduces new ways of approaching educational goals. This teaching method has many names. Blended learning, mediated learning, hybrid instruction, web-based instruction, or web-assisted instruction. Singh et al., (2021) believed that blended learning is the same as hybrid education, which combines the possibilities of web-based training with the possibilities of classroom techniques. Similarly, Poon, (2013) in their study of the transformative potential of blended learning, found that blended learning environments incorporate traditional classroom values, thereby increasing the effectiveness of meaningful learning experiences. I discovered that on a more conservative note, Bonk, (2004) cited his three most common definitions of blended learning.

1. Combination of teaching methods (or delivery media)
2. Combination of education methods
3. Combination of online and face-to-face instruction

However, the third definition is widely accepted by scientists. For example, Hrastinski, (2019) explained that there are two key elements to defining blended learning: online learning and face-to-face learning. Additionally, Alammary et al., (2014) argued that blended learning is a combination of online learning and face-to-face education, incorporating some of the features of an online course and the presence of face-to-face communication. Other researchers believed that systems called blended learning integrated face-to-face and computer-mediated instruction (Lim & Morris, 2009).

This study applies the definition of blended learning by Bouilheres et al., (2020). A combination of traditional face-to-face and online learning, where instruction occurs

both in the classroom and online, with the online component being a natural extension of traditional classroom learning (Colis & Moonen, 2001; Rovai & Jordan, 2004).

### **Example of using blended learning**

Ulla and Perales, (2022) referred to the combination of traditional and online education as a “hybrid classroom” and emphasized that educators have realized its benefits and are increasingly engaging in hybrid education. Furthermore, he emphasized that most EFL/ESL students are also enrolled in hybrid courses.

Kocoglu et al., (2011) investigated students' opinions about blended learning environments, and the results showed that students generally have positive opinions about blended learning environments. The results of the study also demonstrated that there is a high level of interaction between students and teachers in this type of environment. This result confirms the findings of Abrami et al., (2011) which show that there is a high need for personal interaction in online learning.

According to Sethy, (2008) there are three reasons to support blended learning. Meet learner needs and promote critical thinking skills. The flexibility and cost-effectiveness of blended learning, where learning occurs online and face-to-face.

In a three-year study of face-to-face, fully online, and blended teaching methods, Garrison and Kanuka, (2004) found that blended teaching consistently produced higher success rates than the other two methods. Zacharis, (2015) investigated the relationship between student outcomes and hybrid instruction. Their findings showed a positive relationship between students' final grades and improved learning outcomes. Additionally, Osorio and Duarte, (2012) studied a hybrid graduate program at a Colombian university and concluded that students had very positive opinions of the program's subjects and teaching model. Similarly, Tselios, Daskalakis and Papadopoulou, (2011) investigated Greek students' views on blended learning. The findings of this study showed that both perceived usefulness and ease of use positively influenced attitudes towards the use of blended learning in universities. Regarding the use of digital communication means, Yamagata, (2014) argue that interactions and academic discussions between students and teachers in both synchronous and asynchronous video conferencing are a privilege afforded by blended learning applications.

### **Pure online learning or blended learning**

Proponents of pure e-learning education such as Liao, Yu and Yi, (2011) argue that we believe in the benefits of an educational environment. However, when learning on online mode, it became clear that the feeling of isolation is a really and blended learning eliminates this negative element. Blended learning environments encourage students to engage more in online courses because they have the opportunity to virtually meet and discuss with their classmates.

Poon, (2013) concluded that blended learning incorporates several aspects of traditional courses and provides a more effective learning experience compared to virtual learning environments. Moreover, pure virtual learning in the education sector still poses many problems. Based on Fryer and Bovee, (2016) standalone e-learning courses have high demands on the teacher and require more time from the teacher. According to Hurt, (2008) and Rovai and Jordan, (2004) lack of interaction leads to frustration and feelings of isolation, which leads to students dropping out of college. Almendingen et al., (2021) also argued that dropout is caused by inappropriate interactions of college students with other students and faculty. Therefore, online-only education is rejected by many researchers and a mixed environment is proposed, as it

has clear advantages for educational institutions. Heinze and Procter, (2004) concluded that instruction in a blended learning environment appears to be more transparent than pure online delivery.

Delialioğlu and Yildirim, (2007) argued that pure online education has many problems, such as hardware, software, time, and funding limitations, as well as pedagogical problems. This led to a new idea: combining the benefits of face-to-face courses with the benefits of online courses, known as blended learning. They believed that teachers could support courses through online exercises, instant online feedback, and creating a more rewarding learning environment through hypermedia and multimedia.

### **Face-to-face interactions remain important**

When interacting face-to-face, a lot is conveyed through facial expressions, body language, tone of voice, and eye contact. Based on Calvo and Mello, (2010) facial expressions, body language, and tone of voice are innate. In this respect, the brain needs and expects these more important information channels. When these are not available, the brain has trouble communicating and misunderstandings are more likely to occur. Graham, (2013) also argued that we deceive ourselves when we believe we can know someone through text and assume their experiences. Visual information and subtle emotions such as winks and smiles are essential for communicating from a distance, but these do not exist in online learning. He added that human communication is influenced by many factors that cannot be explained by electronic communication, and that it has a bigger impact than we realize.

Orhan, (2008) investigated students' perspectives on blended learning environments and found that students enjoyed participating in blended learning environments that included face-to-face instruction plus online instruction. Furthermore, he emphasized the importance of communication and interaction for successful learning in online education. From another perspective, one of the BL theorists, Rovai, (2004) emphasized that course design in blended learning is a flexible approach. It offers some of the convenience of a fully online course without leaving face-to-face contact. The advantages of face-to-face interaction are undeniable and we can conclude that the presence of face-to-face interaction improves the quality of purely online or traditional courses.

### **A sense of community**

Teachers and students communicate virtually through e-learning, which is the main feature of such learning processes and differs from traditional classroom teaching where teachers and learners interact face-to-face (Cantoni et al., 2004). In general, all terms describing distance learning using computer technology have a distinct meaning: learning occurs while the teacher and learners are separated. Participation in e-learning and virtual education is believed to prevent e-learning from interacting with the community. By adding human interaction to online learning, educators take into account human socialization needs, which aids the learning process (Sethy, 2008). This sense of belonging to a community is lacking in online learning and can hinder the development of shared emotions and feelings between learners and teachers.

Rovai, (2002) provided the following definition of a sense of community. "A sense of belonging among members, a sense that they are important to each other and to the group, and a shared belief that their needs will be met through a commitment to being together.

Rovai and Jordan, (2004) used a causal comparative design to investigate the relationship of sense of community between fully online traditional classrooms and blended learning environments in higher education. They found that blended courses create a stronger sense of community among learners than traditional or fully online courses. Obviously, online or web-based learning environments offer effectiveness and flexibility that cannot be guaranteed in a classroom environment, but face-to-face instruction provides the social communication that students need to learn. Therefore, integrating these two environments in a blended format preserves the benefits of both learning platforms (Carbonell et al, 2013). It can be concluded that one of the main benefits of blended learning is that it creates a sense of community among learners (Ustun et al., (2021).

### **Advantages of Blended Learning**

Blended learning is an innovative approach to learning that combines the best elements of self-paced, teacher-led, distance, and classroom delivery to achieve flexible, efficient, and cost-effective education. This approach was developed in response to the limitations of online and traditional learning, and it offers numerous benefits for both teachers and students. The following are some of the advantages of blended learning:-

#### **i. Optimizing Development Cost and Time**

Blended learning is a teaching approach that combines different methods for delivery to optimize the development of a learning program while balancing the associated costs and time. The Internet is an effective tool to deliver online learning, which supports a wide range of learning styles and caters to individual differences in learning at a minimal cost. This virtual medium is purposely designed to foster a community of practice. Singh (2003) explained that teaching online, self-paced, media-rich, web-based training content could be expensive due to the need for multiple resources and skills. However, combining virtual collaborative and coaching sessions with simple self-paced materials, such as off-the-shelf WBT, documents, case studies, recorded e-learning events, text assignments, and PowerPoint presentations that require less skill and quicker turnaround times can be more effective. Additionally, blended learning offers the following benefits to the HEIs community; it offers an efficient and effective approach, provides more learning choices to learners, increases learning resources and experiences, and fosters independence and conviviality.

#### **ii. Extend the Mobility and Reach**

The emergence of information and communication technology has revolutionized the way we approach learning. With the increasing use of mobile and wireless technologies, learning can now take place anywhere and anytime. The blending of delivery mechanisms, instructional approaches, technologies, and learning situations, will evolve to support learning that is individualized yet collaborative and interactive, timely and directed toward a specific need, yet part of a lifelong learning journey. These technologies have the potential to make learning more accessible and promote rich, interactive learning experiences that are complex yet ubiquitous and seamlessly integrated into the learning setting.

#### **iii. Enhanced Collaboration, Communication and Social Interaction**

Blended learning is a method that combines technology with traditional methods of teaching. It connects people, activities, and events, making it an

effective tool for building and sharing cultural understanding on a global scale. Moreover, the interaction between learners and teachers, as well as learners with their peers, can lead to the creation of online communities and learning practices where knowledge, ideas, experiences, and learning products are freely exchanged and highly valued.

#### **iv. Offers Efficiency and Flexibility**

Blended learning combines online and offline learning to create a flexible and efficient teaching experience. Online learning uses the Internet for learning activities, while offline learning occurs in a traditional classroom setting. With video and teleconferencing, learners can attend class sessions online, and study materials and research resources are easily accessible on the website. The Internet offers applications such as e-library, e-books, and e-resources, providing learners and teachers with a virtual medium to explore. Blended learning offers a cost-effective way to increase the contents of learning while improving the teachers and learners' experience.

### **Disadvantages of Blended Learning**

Blended learning implementation has raised several issues of concern. Earlier research and recent studies have discussed the disadvantages of blended learning. In his research, Graham (2004) identified five concerns related to blended learning. These include the loss of classroom community feelings, the role of self-regulation as an independent learner, support and training for instructors and learners, the digital divide, and the cultural adaptation of course materials. In addition, Sabri et al. (2010) highlighted technical issues related to the online component of blended learning that need to be addressed.

#### **Loss of Classroom Community**

According to Graham (2004), learners in higher education should be allowed to choose between face-to-face, completely online, or blended education for each course. One reason for this preference is that students believe traditional classroom settings are better suited for creating social interactions, building social-emotional relationships, supporting teamwork, and improving the learning process with peers. A study conducted by Paechter and Maier (2010), as cited by Okaz (2015), supports this view. In contrast, in a blended environment, some students do not feel a sense of belonging or group identity. Learners may feel isolated from lively social interactions with peers and may have difficulty connecting with instructors who may not respond promptly.

### **Methodology**

For this study, a literature review method was used to gather, analyze, and synthesize previously published papers and data related to the topic of using a blended learning approach to enhance student achievement in higher education.

According to Gibbs et al. (2017), literature reviews are a reliable way to evaluate educators' capabilities. In this study, the use of a literature review and blended learning approach helped improve students' academic performance. The various components of blended learning also helped teachers to become more knowledgeable and professional, which is beneficial for the higher education teaching profession.

Publish or Perish software (Harzing, 2015) is a program that helps users find articles related to their search query by providing lists and links to relevant articles from

various databases such as EBSCO Academic Search Premier, JSTOR, and ScienceDirect was employed. The search was limited to articles published and included the following keywords: 'blended learning', 'higher learning institution', 'advantages', and 'challenges'. The titles and abstracts were screened, and only studies that met the following criteria were included: (1) focused on blended learning in higher learning institutions, (2) discussed advantages and challenges encountered and lessons learned from the experience, and (3) were published in English language. A total of 40 articles were included in this review, and the information from each article was extracted and coded as themes.

## **Result and Discussion**

With the growing use of IT in education, blended learning can provide tools to complement face-to-face experiences (Vaughan, 2010). Additionally, blended learning provides an active learning environment with flexibility in resource use for students and to allows teachers to spend more time with learners in small groups or even one-on-one individual (Watson, 2008). Furthermore, blended learning has the potential to transform students' experiences and outcomes through teach (Davis & Fill, 2007). Hamed et al., (2008) investigated the effectiveness of e-learning in combination with traditional learning in their research. They concluded that a blended learning approach is the most flexible method for e-learning.

Another advantage of a blended learning environment is that it provides more resources to learners. Hennessy, et al., (2010) concluded that the use of technology in the physical classroom provides additional resources to students, increases learners' confidence and competence, and is thought to improve the quality of learning. Olapiriyakul and Scher, (2006) outline other benefits of blended learning, includes; develop a deep understanding of a topic through the use of web-based resources and active student participation in class. Furthermore, online learning engagement provides an interactive framework for communication between teachers and students within the classroom and can foster collaborative activities beyond the classroom (Hung & Yuen, 2010). In the above discussion, we have highlighted the main benefits of using blended education. To overcome the shortcomings of online education and use different educational processes and delivery strategies to increase learner satisfaction and improve learning outcomes.

The process of teaching and learning is an ongoing one that constantly evolves. It has progressed from a stage where it was entirely dependent on teachers and classrooms to an environment that is predominantly online. The emergence of computers and other technologies has made the activity of teaching and learning much more dynamic. The findings of this survey indicate that blended learning surpasses pure e-learning and offers numerous benefits for learners, such as fostering a sense of community and belonging. Blended learning, which combines online and in-person delivery of course material, has been shown to be more effective than traditional face-to-face instruction alone.

## **Conclusion**

The blended learning courses are a combination of face-to-face instruction and online platforms. In such courses, students and teachers use technology to promote active learning and can share their experiences in branded environments. Furthermore, blended learning enhances student productivity not only in the online environment but also in the course content (Bdawi, 2009; Bouilheres et al., 2020).

Therefore, it is essential to design a blended learning environment to achieve a harmonious learning balance between face-to-face interactions and online access (Askar et al.,2008) and Hockly, (2018). With this in mind, blended environments provide an



encouraging context for both traditional classroom and online environments. In other words, it is a set of delivery methods to achieve the course objectives. In summary, the advantages of blended learning compared to online learning environments are:

- Increased communication
- Commitment to personal communication.
- Sense of community
- Improved academic performance
- Group work
- Appropriate feedback
- Active participation
- Provide help
- Fun and practical teaching and learning methods

In the above discussion, we have considered the many advantages of blended learning over traditional face-to-face and online education. It can be concluded that the activities included in a blended classroom can promote a sense of belonging to the community and eliminate the frustration caused by a mere online environment. Body language, tone of voice, facial expressions, and eye contact have a huge impact on communication and should not replace face-to-face elements. These two educational environments, e-learning and face-to-face education, can complement each other in educational applications. In this article, we have presented examples of successful applications of blended learning in distance education, especially in terms of student learning experience, student-student interaction, and student-teacher interaction. Blended learning approaches may become a mainstream educational model in the future.

### **Recommendations**

Based on the findings of the study, the researcher suggested following recommendations:-

- English language departments should implement blended learning as the primary approach for most courses.
- It is highly probable that blended learning will be the most widely accepted educational model in the future.
- Future researcher may assess the suitability and efficacy of each learning component utilized in implementing a blended learning approach.

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