

<https://doi.org/10.33472/AFJBS.6.Si3.2024.3482-3491>



African Journal of Biological Sciences

Journal homepage: <http://www.afjbs.com>



Research Paper

Open Access

Embracing Blended Learning and Technology's Impact on Higher Education: Analysing the Phenomena

Dr. Smritikana Ghosh¹, Sourish Ghosh²

¹Academic Counselor, IGNOU, Ranchi, Jharkhand ORCID: 0009-0002-6045-0655

²INT. B.Sc & M.Sc (Physics) Central University Jharkhand

Article Info

Volume 6, Issue Si3, August 2024

Received: 07 June 2024

Accepted: 10 July 2024

Published: 05 August 2024

doi: 10.33472/AFJBS.6.Si3.2024.3482-3491

ABSTRACT:

Blended learning offers a range of advantages, like giving students the power to take charge of their learning, enhancing educational effectiveness and promoting greater engagement. Given the current situation, now is a great opportunity to take a look at and make some changes to the university curriculum. Blended learning has the potential to enhance the educational experience, offer students with opportunity to develop skills relevant to the modern world, ensure that students from all backgrounds have equitable access to high-quality education, and more, according to several studies. To get the advantages of blended learning, it must be executed with precision. This paper explores the utilisation of a learning system for blended learning in higher education in India and look at how blended learning can be integrated into higher education, both currently and in the future. Blended learning in higher education emphasises the use of social media, learning management systems, and various resources. Characteristics such as innovation, student focus, customisation, diversity, and seamless integration of online and in-person learning will play a significant role in shaping the future of higher education. Based on this research, it has been found that using a blended learning strategy is the most effective approach for teaching and learning in the dynamic and competitive field of higher education. The future of blended learning at universities is bright.

Keywords: - Blended learning, Opportunity, Effectiveness, Strategy and Skills

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1. Introduction

Blended learning has become more popular in higher education as a means to improve both teaching and learning on campus. The National Education Policy 2020 supports the

implementation of blended learning methods to cater to the growing significance of digital technology in educational environments, including classrooms. In the field of higher education, there has been a significant integration of advanced teaching methods and digital technology over the past two decades. For instance, the widespread use of Internet technologies and networked learning has created new possibilities for the creation and use of innovative learning environments that are engaging, realistic, and true to life. While the NEP-2020 emphasises the significance of online education, it also acknowledges the value of traditional classroom learning. Through this process, a number of effective blended learning strategies specific to the subject will be uncovered.

The landscape of higher education is experiencing substantial modifications as a result of the fact that we are now living in an educational environment that is both fast-paced and dynamic. It has become more obvious that the use of technology into instructional methods, which is often referred to as digital education, is a vital component in the transformation of the ways in which instructors and students acquire information. There are a number of ways in which this method improves the overall learning experience. Some of these methods include putting a high priority on accessibility and flexibility, recognising and accommodating a diversity of learning styles, and encouraging constructive cooperation and involvement. There is a common view that children have the capacity to learn the information and talents that are essential for them to be successful in our complex and interconnected world if they are taught using technology in conjunction with traditional teaching methods. The potential of digital education to improve higher education is now the subject of research that is being carried out at this very time. Blended learning is a method of instruction that combines in-person and online instruction. It has shown to be beneficial for educators who are seeking to meet the requirements of the digital era while still acknowledging the relevance of one-on-one learning. Training that is both online and in-person is what is meant by the term "blended learning."

Blended Learning

The integration of online and in-person learning has gained significant importance in K-12 and higher education in the twenty-first century. In higher education, blended learning has gained popularity due to advancements in technology and changes in teaching methods. This has led to a shift in how material is delivered and how students are engaged in collaborative learning. Blended learning has emerged as a modern approach that is rapidly gaining traction among educators. The rapid ascent of the groundbreaking educational strategy can be largely attributed to the integration of blended learning. There has been a significant amount of research conducted on the potential benefits of blended learning strategies in recent months. Blended learning is an approach to education that combines online resources with more conventional in-person classroom instruction.

Its ability to provide a tailored and adaptable learning experience is a big reason why it has become popular recently. Online learning, digital technologies, and the flipped classroom model are some of the more recent innovations in education, but traditional classroom approaches are still in use. Blended learning, also referred to as hybrid learning, is a modern approach to education that combines traditional face-to-face classroom instruction with online resources and assignments. The goal is to establish a versatile and comprehensive educational environment by combining the most beneficial elements of traditional face-to-face instruction with digital resources. Blended learning is defined in numerous ways, but they all relate to the integration of digital and analogue settings for instruction. Even if there are many different ways to define blended learning, they can all be summed up as a teaching method that combines elements of face-to-face instruction with those of remote learning and other technological tools (Akbarov et al., 2018).

Research Objectives

- ✚ To fully comprehend blended learning and its components
- ✚ To investigate the challenges that higher education institutions face while implementing blended learning.
- ✚ Discover the benefits of integrating blended learning into higher education.

2. Methodology

Our research was mostly based on secondary sources, which included articles from specialised journals, books, dissertations, and theses as well as university news and expert commentary.

Significance of the Study

The increasing popularity of blended learning models and technology-enhanced teaching techniques shows that progressive educators are continuously enhancing student learning via the use of technology. The current educational system effectively meets the demands of today's logical, curious students who are ready to learn more, all thanks to the hard work and devotion of educators. There has been a significant impact that blended learning has had on the educational system all over the globe in today's culture. The use of technology into educational programmes is becoming more common in industrialised countries, particularly among colleges and universities, in order to accommodate the ever-evolving requirements and developments of society.

Many higher education administrators are now dealing with a management issue and this research sought to solve that. Because of everything said before, achieving positive retention in higher education has become a challenging task. Without retention, universities would fail. It is a symbol of sustainability and durability in higher education. In the face of declining enrollment and intense competition, school officials are always thinking of new strategies to keep students from leaving. Therefore, the current research is very necessary and important.

How Blended Learning Affects Higher Education

The very essence of blended learning is a redefinition of the dynamic between educator and student. On the other hand, research has shown that blended learning solutions don't always deliver as promised. This could be because teachers, administrators, and students don't have the necessary expertise in technical, methodological, or organisational areas. According to Wang, Han and Yang (2015), the fact that online education is becoming more popular has led to an increased focus on blended learning in higher educational institutions today. As stated by Anthony et. al., (2020), the efficiency of blended learning in higher education has the potential to be improved via the use of a systematic and well-planned strategy to the implementation of blended learning. Blended learning has become a vital component in higher education's initiatives for creative vision, accreditation, teaching, and education. However, the integration and execution of blended learning have become key components.

A rising number of educational institutions, including colleges and universities, are embracing online and hybrid learning platforms in order to maintain a competitive advantage in the constantly shifting educational environment and to meet the varied requirements of their student body. To better prepare students for a digitally-driven future and to enhance their educational experience, blended learning offers a framework for integrating modern technology tools and resources. The ongoing quest for educational approaches that fully equip students for future problems has led to the increasing acceptance of blended learning models, which maximise students' learning potential. Education delivered over the internet

provides a comprehensive classroom experience, enabling students from a wide range of backgrounds to investigate a wide range of opportunities. According to the findings of the study carried out by the decision-making process for schools to implement blended learning was influenced by a number of different elements. It was essential to take into account factors such as effectiveness, flexibility, advocacy for diversity and global reach.

Blended Learning Components

- ✦ **Events occurring in real Time** — In a synchronous learning environment, the teacher takes the lead and all students engage simultaneously. Many students highly value the opportunity to learn from a knowledgeable teacher.
- ✦ **Assessment** — The assessment is a test of knowledge that students may take either online or in a traditional classroom setting to gauge their current level of understanding.
- ✦ **Independent Study** — Distance learning encompasses a wide range of approaches to education in which the student is not physically present with the teacher; this includes many forms of recorded live events, online and on-demand learning in which the student sets his or her own pace. Collaborative learning occurs when students work together to learn from each other and their teachers in various ways, such as by discussing and re-examining class content, while self-directed learning occurs when students choose their own pace and manage their own time.
- ✦ **Facilitation** — The ability of students to acquire, retain, and use new information is significantly improved by the use of items like these. Books, videos, and digital downloads are all categorised as resources.
- ✦ **Working together** — Collaborative learning places an increased focus on students actively communicating with one another, which in turn makes the transmission of knowledge easier. New educational opportunities arise when students work together because they learn more and solve problems more efficiently than when they work alone. This goes beyond what is achievable with traditional teaching approaches. Students and teachers alike may benefit from combining live classroom discussion with asynchronous communication methods such as email and threaded discussion boards.

Advantages of Blended Learning in Higher Education

- **Individualised Curriculum Exploration:** - Blended learning allows for a more individualised academic curriculum by including a variety of learning styles and preferences. This is accomplished via the use of internet resources, multimedia, and interactive activities. Students have the ability to choose the method of instruction that best suits their needs, whether it is via the viewing of video lectures, participation in online conversations, or participation in activities that require them to put their knowledge into practice.
- **Improved Interactions and Teamwork:** - Students are encouraged to take an active role in their own education via the use of blended learning environments, which include a combination of online and in-person activities, conversations, and homework assignments. Through the use of online discussion boards, social networking sites, and other digital technologies, the internet has made it possible for individuals from different regions of the globe to interact with one another, share their ideas, and work together on a variety of projects.
- **Flexibility and User-Friendliness :-** Students have the ability to study whenever it is most convenient for them because to the flexibility that blended learning provides. Additionally, they have unrestricted access to the materials and activities that are included in the course. Because of its adaptability, higher education is available to those who may not ordinarily be able to benefit from attending college. Individuals that fall within this

category include working professionals, persons with disabilities, and students who have unique educational requirements. They have the ability to pursue higher education independent of their own schedules or where they now dwell.

- **Enhancing Skills via Hands-on Experience:** - Case studies, live models, and real-life situations are all parts of mixed learning that give students real-world experiences to go along with their theory information. Doing problem-solving tasks gives students the chance to use what they've learned in the classroom in real life. They can also get hands-on practice with digital tools and platforms that are useful in their chosen area of study.
- **Optimising Resource Utilisation and Minimising Expenses:** - Blended learning has the potential to bring about significant cost savings for students and institutions. By making the most of educational resources and minimising the reliance on physical infrastructure such as textbooks and classrooms, the financial burden can be greatly reduced. The incorporation of digital technology in higher education has the potential to improve affordability and accessibility. This is accomplished by enabling educational institutions to offer high-quality course materials to a larger number of students at a lower cost.
- **Personalised data-driven Feedback:** - Teachers have the ability to monitor their students' progress in real-time through the use of digital learning platforms and technologies that assess engagement, performance, and advancement. With the utilisation of this data-driven approach, educators can successfully meet the varied needs of their students. This approach enables efficient feedback, assessment of students' strengths and areas for improvement and customisation of classes.

Challenging Aspects of Implementing Blended learning in Higher Education Institutions

- ❖ **Problems with Technology and Requirements for Services:-** It is possible that delays to the educational process and a decrease in student involvement might be caused by technical difficulties such as network outages, system malfunctions, and software compatibility concerns. It is possible that classroom instructors and staff members may need ongoing assistance and training in order to properly incorporate technology into their lesson plans.
- ❖ **Increasing Digital Accessibility Disparity :-** There is still a significant gap in the access that different student groups have to digital resources and internet connections, despite the fact that technology is becoming more ubiquitous. The digital divide is a substantial obstacle for children who come from households with poor incomes or who live in rural regions, since it makes it more difficult for them to have access to dependable internet and the equipment they need. Because of this, blended learning courses may not be as beneficial for these kids as they would otherwise be.
- ❖ **Keeping People Involved and Motivated:-** Blended learning provides a chance for personalised and interactive instruction, but it can be difficult to keep students motivated and engaged, particularly during online portions when they might feel isolated or uninterested. Effective strategies for addressing this challenge involve creating engaging and interactive online activities, promoting a sense of community through virtual conversations and collaborative projects, and offering timely feedback.
- ❖ **Honesty and Evaluation in the Classroom:-** Assessing student progress in mixed learning environments presents particular challenges in terms of maintaining academic integrity and preventing cheating during online assessments. When establishing assessments to measure student learning outcomes and deter academic dishonesty, it is important to carefully analyse and implement proctored exams, alternative assessments, and plagiarism detection technologies.

❖ **Integration in the Classroom:** In order for a blended learning programme to be successfully implemented, it is crucial that the pedagogical goals, instructional design, and technological resources be properly linked. Certain educators may have difficulties when integrating digital resources into their instructional methods or encounter resistance from students used to traditional classroom learning.

Connecting Blended learning, Engagement and Success

There is a discernible increase in academic performance, which is accompanied by a reasonably low degree of variability, as a result of the deployment of blended learning. According to the findings of a research that was carried out by Vo et. al., (2017), there was a significant gap in student performance between the use of conventional learning techniques and the use of e-learning. The use of blended learning was shown to have a strong link with enhanced learning performance when compared to the use of standard classroom management techniques. In the research that they carried out, Sajid and colleagues (2016) compared a number of different instructional approaches in order to evaluate the academic achievement of students. The students in the first group came to the realisation that the second group offered them significant support in grasping the content covered in the course and preparing for the examinations of the course. There was no discernible improvement in the academic performance of the pupils as a consequence of the introduction of the blended learning approach. They are persuaded that the paradigm of the flipped classroom, which places an emphasis on active, student-centered learning, has the potential to improve students' critical thinking, retention, and the ability to apply information in practical situations.

The notions of blended learning and the ideas that are associated to it highlight the significant influence that the modern digital age has had on educational settings. This encompasses the reorganisation of instructional strategies, the pooling of resources, the development of collaborative projects, and the modification of the roles and duties of educators. Blended learning has been found to have favourable consequences, including higher academic performance and enhanced learning for students, according to a number of studies that have conclusively shown its effectiveness. On the other hand, further empirical study is required in order to investigate the many facets of blended learning. In order to do this, it is necessary to investigate novel approaches to refocus attention away from the instructor and onto the students, to design assignments that stimulate student involvement, and to assess the impact that these interactions have on the cognitive development of the students. We are in a better position than ever before to begin our empirical research in order to address the knowledge gap and devise a comprehensive strategy for implementing blended learning in educational institutions.

Blended Learning's Future in Higher Education

In this day and age of increasing digitalization, blended learning is the most effective method for education. It creates a learning environment that is both adaptive and compelling in order to accommodate to the preferences of students in the present day. In the future, blended learning will only become more powerful and influential as technological advancements continue to accumulate.

♣ Individualization and Tailoring

Blended learning enables the development of personalised educational programmes for individual students, taking into account their distinct interests, strengths, and areas for improvement as learners, via the use of data analytics and adaptive learning systems, instructors have the ability to tailor courses, provide timely assistance, and enhance student performance via targeted teaching, remediation, and enrichment.

♣ Creativity and Versatility

Blended learning is a fluid and adaptive method to teaching and learning, meeting the changing requirements and preferences of students and educators. As technology advances, the potential for innovation in blended learning environments grows exponentially, with chances to use new technologies to improve learning outcomes and create immersive learning experiences.

♣ **Career Development and Learning**

Blended learning gives them the opportunity to enhance their teaching tactics, study cutting-edge approaches, and participate in continuous professional development. Blended learning is accomplished via the utilisation of online courses, webinars, and virtual communities of practice.

Integrating Cutting-edge Tech into Blended Learning

These technologies are already an integral part of the day-to-day operations of many top education organisations, serving a range of purposes including classroom usage. Training and learning experts, as well as those in the field of professional development, need to be familiar with these emerging technologies in order to guarantee the efficacy of their own programmes by incorporating them properly. The importance of large-scale personalisation has grown in recent years due to the rising profile of innovative technologies in education and training. It is now feasible to match students with the most suitable mentor according to their past actions and assessments, as well as to determine their areas of strength and improvement via the use of digital technology. Blended learning programmes have experienced a significant increase in popularity at universities and colleges in recent years. Computers and mobile phones are valuable tools in higher education, allowing students to acquire knowledge and instructors to impart instruction (Alkhatib, 2018). The classes are taught by lecturers who are not based on campus.

Scope of the Study

In recent years the field of education has undergone a complete transformation due to the widespread incorporation of modern technology and the convenience of internet access. The emergence of these advancements has had significant impacts on the conventional educational environment. These technologies have become a fundamental aspect of our society and are firmly established. It's about time we recognise and fully appreciate the advantages they bring. It is crucial for educational approaches to adapt and stay current in response to the constantly changing environment. The rise of online learning and resources, along with the importance of traditional classroom education, has led to the natural evolution of blended learning.

Through the implementation of a blended learning approach, students have the opportunity to actively engage in their educational journey while receiving continuous guidance from their teachers. This approach is incredibly efficient in meeting the specific needs of each student, going beyond what is typically found in a traditional classroom environment. With the abundance of modern technology and resources, students can now enjoy a customised learning experience tailored to their individual needs. This is why blended learning is so important, as it eliminates the traditional obstacles to education that may not be effective for every student. Blended learning provides students with the opportunity to study at their own pace and offers customisable time durations to cater to individual needs. Every student, regardless of age, possesses a distinct learning style. Therefore, it is crucial for educators to design classes that effectively stimulate students' visual, auditory, and kinesthetic senses to accommodate various learning styles. By embracing technology in our classes, we can elevate the standards for teaching, learning, student engagement, accountability, and enjoyment. Blended learning has become more and more important as students' learning

techniques continue to develop. This is applicable in all industries, ranging from education to business. The mode of instructional delivery has undergone a transformation, shifting from a purely online format to a hybrid approach that combines online and face-to-face methods. This change has been influenced by the increasing populations and the continuous advancements in education.

3. Conclusion

Mastery in both virtual and face-to-face teaching is crucial for the effective execution of blended learning in higher education. It is crucial for universities to actively seek student input when developing blended learning courses in order to identify areas of strength and areas that require improvement. Higher education institutions should carefully consider and plan for the increasing demands of students in the coming years. With the guidance of a knowledgeable instructor, blended learning has the potential to yield outstanding results. Engaging learning environments are crucial for cutting-edge educational methods that involve hands-on implementation of technical knowledge in the classroom. Blended learning at universities holds great potential for the future.

The blended learning approach provides an atmosphere that is beneficial for both the students and the teachers. Blended learning has the capacity to enhance student involvement, provide adaptability, and individualise the learning encounter by combining online learning with traditional in-person education. Blended learning provides a significant degree of customisation, which allows it to meet a wide variety of curricular and institutional goals, ambitions, and needs. It is very dependent on the specific conditions as to whether or not it is used by all of the different groups. Before moving forward with the implementation of blended learning, it is essential to carry out a thorough examination and reevaluation of the course curriculum.

The purpose of this article is to provide instructors in higher education with a complete and thorough six-step approach for implementing blended learning courses, as well as a rigorous technique for creating blended learning courses. It is possible that implementing a mixed learning approach will be difficult since it requires resolving a number of problems that are associated with students, teachers, and educational institutions and institutions. Over the course of the next few years, the use of advanced technology will result in significant changes to the many approaches that educational institutions take in order to teach students and evaluate their performance. It will be essential to have data that is easily accessible and portable computers in order to facilitate this transfer of power.

Blended Learning is a revolutionary advancement in educational paradigms, with the goal of improving learning experiences. Blended learning, a method that combines traditional classroom techniques with digital technologies, is becoming more and more popular among universities and colleges as an effective tool. Students can enjoy a wide range of options, with the convenience of easy access and personalised educational experiences. The rise of digital technology has facilitated greater accessibility and fairness in educational opportunities for students around the world. Students have convenient access to instructional information through a wide range of online channels, such as mobile learning apps, collaborative platforms, and virtual classrooms. This allows individuals to have greater control over their learning process.

In the modern digital age, universities and colleges have the opportunity to greatly improve students' performance. By focusing on teaching them the skills to become proficient digital citizens and fostering a long-lasting passion for acquiring knowledge, these institutions can make a significant impact. However, it is crucial to acknowledge the challenges and elements associated with the implementation of blended learning programmes, including the

requirement for suitable technology, teacher guidance, and ensuring equitable access for all students. Collaboration among individuals in academia, business, and government is essential to address these challenges and foster creativity and cooperation.

Implication

The possibilities presented by blended learning will be better realised if all parties involved work together with the common goal of improving teaching and learning in higher education. Blended learning provides a highly engaging, personalised, and easily accessible educational experience by integrating conventional and cutting-edge methods. Precision is crucial for the successful implementation and realisation of the advantages of blended learning. In order to successfully incorporate blended learning into the classroom, teachers must define explicit objectives and effectively convey them to students. Other essential components include ongoing assessment and evaluation, adequate training and support, and student involvement. Integrating online and in-person elements strategically can open up exciting opportunities in the ever-evolving field of education. This programme will equip students with the essential skills needed to excel in a rapidly evolving digital landscape. To ensure that all students can benefit from this approach, it is crucial that we tackle obstacles, improve teacher preparedness, and prioritise equal access if we want blended learning to be successful.

Recommendations

It is recommended that educators include blended learning strategies into their pedagogical methods with the aim of improving students' academic performance. There is a great potential to increase students' acquaintance with blended learning. In the realm of education, it is a tool that aids in the development of flexibility. Because it allows individuals to study at their own speed and in the method that is most comfortable for them, provides course materials from several sources, and offers them more control over their learning environment, blended learning gives students greater agency.

Once students have established a routine in the classroom, they will find that they are equally at home in either the conventional classroom setting or the online learning platform. It is crucial for universities to expand their educational methods beyond conventional classroom teaching by integrating state-of-the-art learning and collaboration technology. This will provide students with a wider array of opportunities to engage in academic pursuits and social interactions. The study's findings emphasise the significance of allocating resources to the strategic development of learning management systems. It is important for these systems to encompass a diverse array of activity items, including resources, lecture notes, group work, quizzes, wikis, discussion forums, assignment submission, and notifications.

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