



Saarth E-Journal

Saarth E-Journal of Research

E-mail: sarthejournal@gmail.com
www.sarthejournal.com

ISSN NO: 2395-339X
Peer Reviewed
Vol.8, Issue 2, No...24

Impact Factor: 6.89
Quarterly
April to June 2023

POST PANDEMIC INNOVATIVE TEACHING: AN ANALYTICAL STUDY OF ADVANTAGES AND DISADVANTAGES

Parmar Kalpanaben Arjunsinh, Dr. Niraliben A. Soni

ABSTRACT

After the effects of the extremely infectious “COVID-19 virus”, it was very necessary for everyone to participate in measures of physical and social distance. Since the month of December 2019, educational institutions, particularly colleges, have been required to make modifications to their instructional strategies in order to cater to the virus. In the past, students received their university education in a traditional, in-person setting. In the event that a “COVID-19 pandemic” occurred, educational institutions need to be prepared to make a rapid transition away from traditional classroom instruction and towards online classes. During the time when the virus was under control, it was ensured that students were able to effectively complete their studies. Each educational establishment has implemented a one-of-a-kind strategy in order to guarantee ongoing education while also minimising the transmission of the “COVID-19 virus” during the pandemic period. The utilisation of online learning through the application of technology was an alternative method that was utilised in order to successfully carry out the education. In the aftermath of the “COVID-19 epidemic”, life returned to its previous form, which marked the beginning of the new normal period. The teaching methods used in higher education must unquestionably be modified in order to bring them into alignment with the current conditions. In the end, blended learning is a way that is utilised by modern colleges as a means to facilitate the process of education. In this new normal age, there are many different learning strategies that have been developed, but the blended learning technique is universally acknowledged as being one of the most successful.

Parmar Kalpanaben Arjunsinh**, Research Scholar, Faculty of Education, CVM University, Vallabh Vidyanagar. *Dr. Niraliben A. Soni**, Research Guide, Faculty of Education, CVM University, Vallabh Vidyanagar.

Blended learning continues to be focused around the human element, despite the widespread use of technology and its ongoing developments in the manner in which we gain knowledge. This is due to the fact that blended learning offers various benefits through the use of in-

person instruction and direct involvement. Blended learning, which combines the most beneficial characteristics of both online and offline learning, is the most effective method for higher education institutions to improve the quality of instruction received by students and to encourage student participation in their own education.

KEY WORDS: Blended Learning, Educational Institutes, Modern Education, Technology, Instruction Quality.

INTRODUCTION

As a result of the widespread spread of the “COVID-19 pandemic”, every nation has developed and implemented methods to prevent the spread of the sickness. These precautions include isolating individuals from their social and physical environments. It has been suggested by “Corell-Almuzara et al. (2021), Jena (2020), Dreesen (2020), Terais (2020), and Thahir (2021)” that this situation has substantial repercussions for the educational systems of all nations, which in turn has an effect on the economic prospects of those nations. The situation of general education underwent a significant transition as a direct result of the first instances of “COVID-19 corona virus infection” that were discovered in the nation. It has been determined by the “World Health Organisation” that the most efficient way to prevent the spread of the corona virus pandemic is to isolate individuals from their social networks. As a consequence of this, lockdown procedures were adopted all around the world in order to isolate those who were affected. Without exception, all educational establishments, including schools, were shut down. The postponement of all examinations, including those for entry into higher education, has been extended indefinitely, and the cancellation of classes has also been implemented. As a consequence, Lockdown causes disruptions to the everyday routines of each and every student. The move from traditional classrooms to digital ones is something that has never been done before in the world of education (“Ahmad & Zabadi, 2020”). “Covid-19” has offered a one-of-a-kind chance to make this transition. The pandemic caused by the “COVID-19 virus” has therefore led to the simultaneous occurrence of online learning. During the course of the “COVID-19 pandemic”, there has been a significant increase in the number of people participating in online education on a global basis (“Goldschmidt & Msn, 2020”).

University professors play a critical role in easing the shift from traditional face-to-face classroom instruction to online or remote learning, which has the potential to significantly replace traditional classroom instruction (“Bao, 2020; Basilaia & Kvavadze, 2020”). In this particular setting, the most important factors that will determine the outcome are the frequency with which people have access to the internet and the availability of computers and cell phones in the surrounding neighbourhood. It has been observed by “Sun et al. (2020)” that the “COVID-19 outbreak” has had a substantial impact on the testing of distant education. As a result of the pandemic, the educational system that is based on campuses has undergone a substantial alteration. A disruption has occurred in the educational life as a result of the “COVID-19 outbreak”. The majority of schooling & teaching that took place prior to the pandemic relied on methods of instruction that were delivered in person. On the other hand, as a result of the virus’s propagation, online education became the conventional method of instruction. At a few of schools, the traditional graduation march has been replaced by ceremonies that take place remotely. Therefore, in the near future, educational institutions will be required to fulfil the triple mission of higher education through the use of online techniques. A study that was published by Dikti in the year 2020 indicates that the majority of universities in India have used online learning.

Education delivered over the internet is yet another concrete example of technical progress that goes beyond the 4.0 industrial revolution that is now taking place. In the event that in-person sessions are not practicable due to a pandemic, students and teachers have the

option of utilising online education as a viable alternative (“Verawardina et al., 2020”). Each country’s account of this outbreak comes to a different conclusion than the others. It is the responsibility of the government to devise and put into action solutions that would limit the spread of “COVID-19” and lessen the damage it causes (“Batubara, 2021”). After the official announcement that the “COVID-19 pandemic” had been effectively contained, life returned to its regular pace. It is very necessary for educational institutions of higher learning to adjust their methods of instruction in order to accommodate the current conditions. As a result of the epidemic that has recently broken out, educational institutions have been pushed to use online learning platforms such as “E-Learning”. Therefore, the most important thing that needs to be worried about right now is figuring out how to successfully supervise the learning process in this new period. When the “new normal” comes, education will need to adjust to the new reality, despite the fact that many institutions already have online learning tools in place. Additionally, students at universities come from a wide variety of backgrounds and have varying preferences when it comes to the most effective ways to study. Consequently, it is of the utmost importance to make use of a variety of learning modalities while developing and delivering the material of the course (Singh, 2003).

Therefore, in this era of the “new normal”, it is very vital for higher education to adjust in order to meet the expectations of students and provide them with the skills they need to be successful in a society that is becoming increasingly dependent on technology. According to “Rooney (2003) and Garrison and Kanuka (2004)”, combining traditional classroom instruction with the use of digital resources can result in the creation of a more comprehensive and engaging educational setting. The usage of blended learning is an alternate approach that might be utilised in order to address this problem. Blended learning is a term that refers to an educational approach that integrates many forms of technology in order to supplement the conventional classroom instruction environment. Students have the opportunity to take use of educational materials that are accessible over the internet through the utilisation of this learning technique, while at the same time preserving some degree of in-person connections. Blending traditional classroom techniques with online activities is a prevalent educational strategy that is often referred to as “e-learning” (“Garrison & Kanuka, 2004; Macdonald, 2008”). This strategy is the combination of traditional classroom methods and online activities. As the “Centre for Educational Research and Innovation (CERI, 2005)” has pointed out, the relevance of blended learning courses is growing at an increasing rate. According to “Mitchell and Forer (2010)”, the purpose of emerging information and communication technologies is really to supplement more conventional approaches to education rather than to completely replace them. The widespread adoption of digital technology has resulted in a considerable transition in the educational system. To put it another way, education has undergone that revolution. In the end, blended learning is a way that is utilised by modern colleges as a means to facilitate the process of education. Using the material that was presented earlier as a point of departure, this article will offer an explanation of the steps that higher education institutions have taken in order to return to normalcy during a pandemic. In particular, the author will focus on the following three important aspects: 1) the paradigm of blended learning, 2) the benefits of this education approach, and 3) the difficulties associated with putting it into practice.

LITERATURE REVIEW

Using the Internet and Other Digital Tools for Teaching & Learning

There have been several transformations that have an impact on many different elements of business, industry, social life, politics, and education (Istifadah et al., 2020). These transformations are a clear demonstration of the development that has been made throughout this age. Online platforms have become increasingly popular as a means of

education in response to the present conditions. When it comes to the execution of online education, having a strong command of technological abilities is very necessary. “Abidah et al. (2020)” provided examples of infrastructure that enable cost-free online learning and communication. These examples included “Google Classroom, Whatsapp, Smart Class, Zenius, Quipper, and Microsoft”. The entirety of this platform’s usefulness is dependent on technological advancements. It has been reported that educational institutions of higher learning are making concerted efforts to enhance the learning process by integrating technology into the classroom (“Orton-Johnson, 2009”). The great variation of students’ socioeconomic circumstances, cultural origins, sex identities, and linguistic abilities is one of the primary reasons why diversity is such an important aspect of higher education. The availability of materials that cater to a wide range of student backgrounds and learning preferences is one of the ways that technology contributes to the greater diversity that exists in the classroom. It is possible to organise online classrooms with the help of the “Learning Management System (LMS)”, which is a beneficial tool (“Okaz, 2015”). Any digital technologies that are created or utilised for educational purposes are included in the definition of “digital education technology (DET)”, regardless of whether or not they are official or informal in origin. When we talk about “educational technology capabilities (ETC)”, we are referring to a collection of characteristics that are common to a wide range of digital technologies. These characteristics make it possible to achieve certain learning goals, such as personalisation. The fundamental presumption is that the basis of capabilities is constructed upon a mix of technical qualities and the functioning of tools. As a consequence of this, a single tool may possess several functionalities, and these functionalities may be found in a variety of tools. When regarded from this angle, ETC may be taken into consideration as a tool that can be used to analyse and evaluate different technological implementations and the transformational powers of such implementations. As seen in Figure 1, the conceptual model put out by “Castro (2019)” provides an illustration of the numerous capabilities of educational technology, as well as the operation of various tools and platforms, and the various components of digital technology.

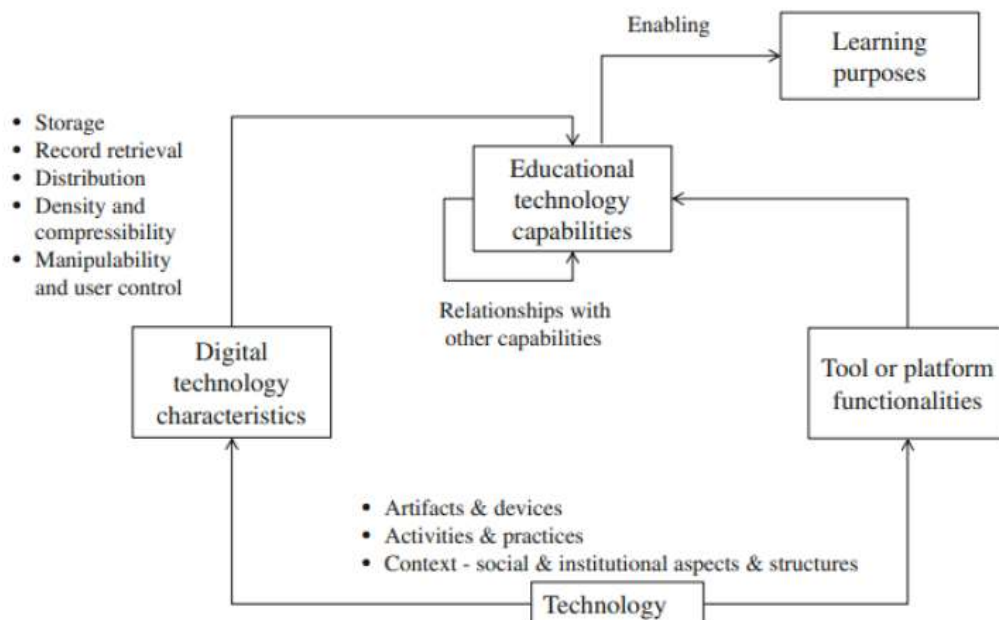


Figure 1: Conceptual model of technology capabilities (Castro, 2019).

METHODS & MATERIALS

During the course of the research, a systematic review was used to gather information for the descriptive analysis. This information was then utilised to present and assess the concerns that were discussed in the paper. A method that was based on the literature was utilised in this study in order to arrange the process of concept production. In 2015, “Rocchi and Branch” reported a research that they had conducted. “Research journals, articles, and papers” that are directly related to the application of the blended learning technique in higher education are included among the resources that are utilised. In order to offer a full picture of the topic that was being investigated, the systematic review that was conducted for this article utilised a process known as synthesis or summary. This technique entailed incorporating a variety of expert viewpoints from a number of different scientific sources and merging them with other types of data.” Hammond & Perry” explored & discussed this topic in the year 2002. Among the procedures of the systematic review that were utilised in the construction objectives of this paper are the following:

- 1) To come up with a proposed topic for study.
- 2) To carry out a comprehensive review of the existing literature.
- 3) To evaluate and select relevant research papers that makes use of qualitative data for the purposes of analysis and synthesis.

“Francis C. and Baldesari (2006)” stated that a continuous quality assurance programme should be maintained, and that findings should be reported.

DISCUSSION & RESULT

Blended learning

The 21st century is a highly globalised era that is defined by tremendous technological advancement, economic volatility, and educational upheaval. We are now living this century. Currently available technological advancements are having an effect on the way in which students view the process of learning. Students have the ability to access educational resources from any location and at any time through mobile learning, which is a technological medium that is generally accepted and preferred by students. Students in traditional classroom settings face quick boredom as a result of restricted visual stimuli and inadequate class time. This is because the duration of the lesson is insufficient. In addition to this, the “COVID-19 pandemic” calls for the use of innovative approaches in the sphere of education. In the wake of the pandemic and during the entirety of the technological era, the ability to be flexible is very necessary for continuing higher education. For the purpose of assisting students in adjusting to life beyond “COVID-19” and making the most of the benefits that technological advancements have to offer, specialists create individualised learning plans that take into account the learning style and method of acquisition that each individual student has selected. Following much deliberation, it was determined that the mixed learning method was the most successful learning technique. In contemporary classrooms, it is of the utmost importance to incorporate technology that has the capability of facilitating seamless communication between teachers and their pupils. The use of blended learning is strongly advocated (“Diana et al., 2022”). This is because blended learning has the capacity to facilitate communication between different students and teachers, regardless of where they are physically located. The phrase “blended learning” continues to be one that does not have a crystal clear and accurate definition.

It is generally agreed upon that the distinguishing element of a blended learning system is the combination of traditional classroom instruction with the use of online resources (“Graham, 2006; Rooney, 2003; Young, 2002”). According to “Levin et al. (2013)”, blended learning is a method of education that mixes the features and advantages of synchronous and asynchronous learning modes in order to achieve certain educational

objectives. According to “Shahabad & Uplane (2015)”, a synchronous learning method is one that is dependent on instruction that is planned, that occurs in real time, and that is supported. This model is characterised by synchronous cooperation between the instructor and the students, who come together to work on a project that is shared by all of them. Communication tools like as chat and videoconferencing are utilised in this model. One example of this is when a teacher uses a digital platform like Zoom or Google Meet to give live online instruction to their students. Through the facilitation of social contact between instructors and students, synchronous “E-Learning”, as stated by “Hrastinski (2014)”, helps to build a feeling of community among students. Not only does this encourage students to perceive themselves as computer users, but it also encourages them to regard themselves as engaged members of society. Asynchronous learning, on the other hand, lets students participate without being constrained by factors like as geography or the time of day. Asynchronous teaching gives students the ability to study whenever and wherever it is most convenient for them, which is a significant benefit of educational opportunities, offered online. By way of illustration, students are provided with the liberty to access “E-Learning” resources whenever they like, to participate in conversation with their teachers and classmates through the exchange of messages, and to recover papers and PDFs by downloading them.

In addition, Hrastinski asserts that communication platforms such as email and Google Classroom are frequently utilised to facilitate asynchronous learning. With the help of these technologies, both students and teachers are able to maintain their connection to one another and carry on with their work even when they are unable to access the internet simultaneously. This technique, which combines synchronous and asynchronous learning, is an example of blended learning. It combines the two types of learning. In the context of education, blended learning refers to the practice of integrating offline and online modes of instruction (“Sakina et al., 2020”). Because blended learning may take on a variety of shapes and dimensions, individuals have the option to choose a curriculum that is tailored to their own educational needs and the environment in which they are receiving their education. Station rotations, lab rotations, flipped classrooms, and individual rotations are only some of the types of blended learning that have been recognised by “Christensen et al. (2013) and Horn and Staker (2011)”. Students are able to acquire knowledge using the approach of blended learning. Some students choose to participate in independent study, while others get instruction from teachers in traditional classroom settings (for example, by attendance at lectures, participation in webinars, and so on). In accordance with the assertions made by “Badre (2020)”, an integrated learning environment is created through the combination of online training and instruction delivered by an instructor.

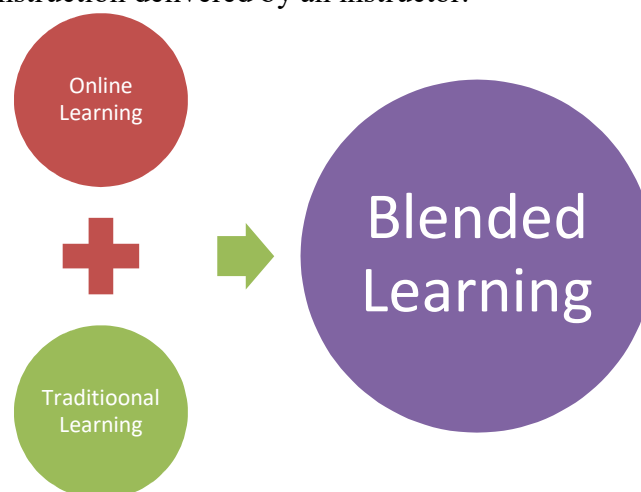


Figure 2: Blended Learning

Blended learning is a method to education that offers a complete approach, which results in benefits for both teachers and students simultaneously. In addition to the traditional means of instruction that are used in classrooms, such as lectures, books, laboratories, and handouts, students may also benefit from the incorporation of communication technology, such as computers, the Internet, and mobile phones, into their educational experience. Increasing numbers of educational establishments, including universities and other organizations, are using blended learning strategies. Blended learning is a strategy that has shown to be quite successful. It provides students with a greater variety of alternatives by combining a number of different instructional approaches. Based on “Azizan’s (2010)” findings, integrated learning is anticipated to take place:

1. Improve the social communication that takes place inside academic settings that are based on the community.
2. The development of pupils’ self-confidence and their ability to do tasks.
3. Make certain that the entire educational experience is of the greatest possible standard.
4. While you are in school, work on developing your ability to think critically.
5. To make full use of technology as a means of delivering instructional information to all of the students.



Figure 3: Blended Learning Paradigms

A number of different blended learning paradigms have been developed by academics. According to “Singh (2021)”, the framework primarily incorporates a variety of components that are derived from both traditional classroom education and online learning approaches. In Figure 3, an eight-part framework is depicted. This framework is comprised of the following components: institutional, instructional, technical, evaluation, management, resource support, ethical, and interface design. The aspects of the framework are representative of a number of different types of issues that need to be handled respectively. We will be able to improve the organization of our thoughts and make certain that the final learning program will result in positive outcomes if we acknowledge and address these concerns.

Blended Learning’s Benefits

According to “Voos (2003), Graham (2004), and Harding, Kaczynski, and Wood (2005)”, blended learning is a relatively new educational technique that combines traditional

in-person instruction with online resources. This allows students to benefit from the numerous advantages that are associated with both approaches. When compared to traditional classrooms, online education offers a number of additional benefits, including enhanced flexibility (“Graham, 2004; Macedo-Rouet et al., 2009”) and lower expenses (“Harding et al., 2005”). This is especially true when training large groups of students. When compared to learning only via the use of technology, this method offers a number of benefits. A number of studies have found that when students rely only on this kind of instruction, their educational experiences are negatively and significantly impacted. The following are some of the probable explanations for this: a) a lack of opportunities to connect with teachers and students (“Laurillard, 1993”); b) asynchronous learning takes longer than expected (Lim, 2002); or c) a lack of enthusiasm to study course contents from an online perspective (“Lim & Kim, 2003”). It has been demonstrated that blended learning has the potential to improve, broaden, and revolutionize traditional in-person education (“Donnelly, 2010; Alexander, 1999”). A substantial movement in the way things are done is represented by blended learning, which entails a shift in emphasis from teaching to the understanding of students (“Nunan et al., 2000”). Blended learning is derived from the concept of blended learning.

Researchers “Osguthorpe and Graham (2003)” found that combining traditional classroom education with the use of internet resources resulted in a number of positive outcomes, including the following: a) enhanced student performance (“Boyle et al., 2003; Lim & Morris, 2009; O’Toole & Absalom, 2003”); b) facilitated the creation of a flexible learning environment that bolstered student autonomy, reflection, and research capabilities (“Chambers, 1999; Lebow, 1993; Tam, 2000”); and c) provided opportunities for reviewing and managing the learning process. Furthermore, a number of studies (“Alebaikan & Troudi, 2010; Gomez & Igado, 2008; Garrison & Kanuka, 2004”) have shown that blended learning has brought about improvements in a variety of pedagogical aspects, including accessibility, flexibility, student involvement, and participation. According to “Maarop and Embi (2016)”, blended learning is currently a technique that is extensively employed in higher education as well as other educational areas. The term “blended learning” refers to the combination of traditional classroom instruction and online resources. The authors “Horn and Staker (2011)” contend that mixed learning gives students more control over their education by allowing them to choose the speed, topic content, timetable, and location of their studies. By leveraging the real-time data that is offered by digital technologies in blended learning, teachers are able to more effectively personalize their lessons to fit the specific requirements of each individual student (“Horn & Staker, 2011”). Through the utilization of mixed-learning models, educators are able to tailor their instructional strategies to the unique learning profiles of their students, which can range from talented children to pupils at Level III. According to “Hilliard (2015), Freeland (2015), and Powell et al. (2014)”, these models give teachers the ability to encourage work that is done by the entire class, by small groups, and by individuals, hence allowing flexibility in different teaching techniques.

It has been argued by a number of authors that blended learning offers benefits that go beyond the capabilities of online courses in terms of accessibility and flexibility. In addition to providing concrete involvement, educational help, and incentives, the benefits include (“Fabry, 2012; Fearson et al., 2012”). According to “Fearson et al. (2011)”, blended learning is chosen by students in the United States and other countries because of its capacity to give customized attention, higher motivation, improved possibility for idea exchange and growth, and enhanced communication and support. Blended learning also has the ability to improve communication and support. In addition, a research that was carried out by “Chan (2011)” demonstrates that students in the United States exhibit improved performance when confronted with the learning process that utilizes a blended learning strategy as opposed to a traditional one. Studies that were conducted on blended learning in higher education have

shown that students who were enrolled in blended learning programs reported higher levels of motivation (“Vaughan, 2014”), more support (“Lim et al., 2014”), and access to more valuable materials (“H Kim, 2014”) in comparison to their counterparts who were enrolled in traditional classroom settings. Blended learning, according to “Hilliard (2015) and Picciano et al. (2012)”, gives students in secondary and higher education the opportunity to interact with a more diverse variety of instructional information than they would be able to in a typical classroom setting.

Difficulties with Blended Learning at Higher Education

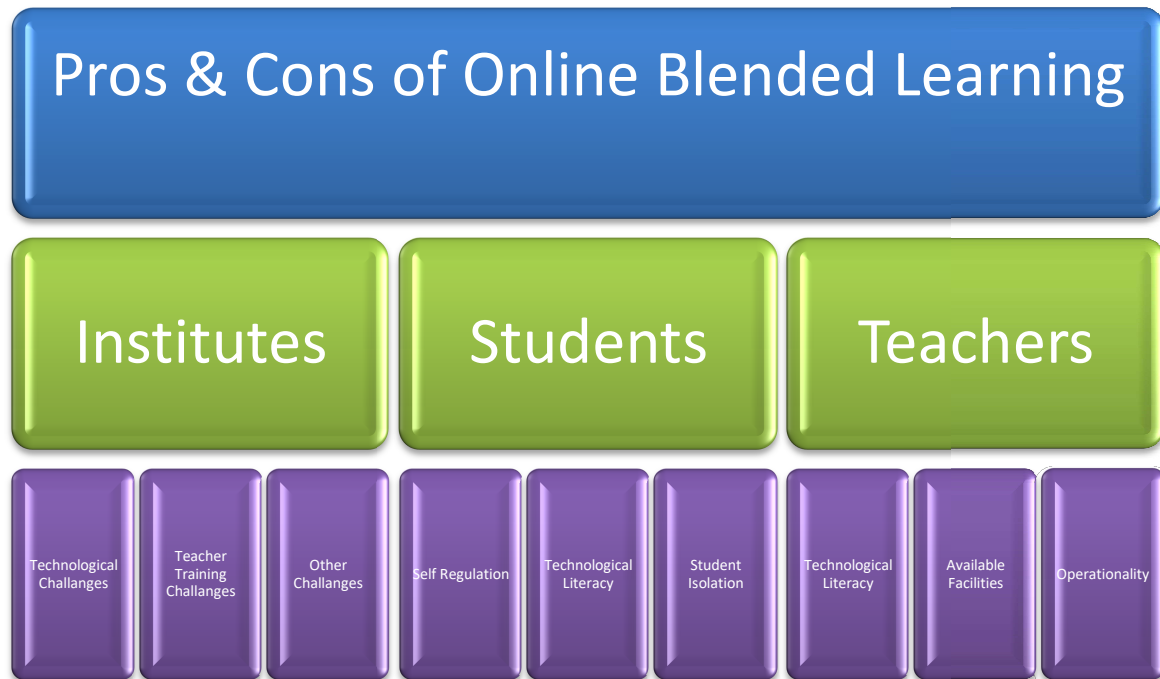


Figure 4: Difficulties at Blended Learning

According to “De George-Walker and Keeffe (2010)”, the success of blended learning is not exclusively attributable to the fact that it combines “traditional face-to-face (FTF) education” with “information and communication technology (ICT)”. Blended learning tools have the potential to change both learning strategies and behaviours. When students are in their first year of college, it is not uncommon for them to have a strong dedication to their academic career. Because of this, it should not come as a surprise that blended learning approaches are utilized in a significant number of “large-scale classrooms (Huon et al., 2007)”. According to “Rasheed et al.’s 2020 research”, the researchers’ analysis resulted in the construction of a model that highlights three issues that are associated with blended learning. These challenges include those that are experienced by instructors, students, and educational institutions. In the picture above, you can see the structure.

CONCLUSION

A viable alternative to traditional classroom instruction, blended learning has shown to be much more effective in the modern day than traditional classroom instruction. Through the reduction of physical encounters, blended learning has the potential to reduce the danger of the transmission of the corona virus. Blended learning is the process of combining traditional in-person teaching techniques with digital tools and resources to provide a more balanced educational experience. Blended learning has continued to emphasis the significance of human connection in its implementation, highlighting the benefits of in-person learning with direct participation. This is despite the fact that the digitalization era has supplied education with a number of benefits. Due to the fact that it combines the most

beneficial components of both online and offline learning, blended learning has emerged as the most popular option in higher education. This is because it is able to produce more meaningful learning experiences and improved student autonomy. Because it can be accessed from any location and at any time, learning becomes more adaptable through its accessibility. Students have the opportunity to acquire key talents that are necessary in today's society, such as critical thinking, problem-solving, and effective information utilization, through the use of blended learning, which is not only well-suited for the current day but also has the potential to help students to develop these abilities. There are a variety of platforms that may be utilized for online learning, including websites, social media platforms, and "learning management systems (LMS)".

REFERENCES

1. Alebaikan, R., and Troudi, S. (2010). Blended learning in Saudi universities: challenges and perspectives. *ALT-J Research in Learning Technology*, 18(1), 1-12.
2. Alexander, S. (1999). An evaluation of innovative projects involving communication and information technology in higher education. *Higher Education Research & Development*, 18(2), 173-183
3. Azizan, F. Z. (2010). Blended learning in higher education institution in Malaysia. In *Proceedings of regional conference on knowledge integration in ICT*, 10, 454-466.
4. Badre, P. (2020). Blended Learning a New Normal in Higher Education. *COVID-19: Crisis, Effects, Challenges and Innovations*, 152-159.
5. Boyle, T., Bradley, C., Chalk, P., Jones, R., & Pickard, P. (2003). Using blended learning to improve student success rates in learning to program. *Journal of Educational Media*, 28(2-3), 165-178
6. Branch, J., & Rocchi, F. (2015). Concept development: A primer. *Philosophy of Management*, 14(2), 111-133. <https://doi.org/10.1007/s40926-015-0011-9>.
7. Castro, R. (2019). Blended learning in higher education: Trends and capabilities. *Education and Information Technologies*, 24(4), 2523-2546. <https://doi.org/10.1007/s10639-019-09886-3>
8. Centre for Educational Research and Innovation (CERI). (2005). *E-learning in tertiary education: Where do we stand?* Paris: OCDE Publishing
9. Chambers, M. (1999). The efficacy and ethics of using digital multimedia for educational purposes. In A. Tait, & R. Mills (Eds.), *The convergence of distance and conventional education* (pp. 5-17). London: Routledge.
10. Dikti, D. (2020). Surat Dirjen Dikti Nomor : 302/E.E2/KR/2020 Tentang Masa Belajar Penyelenggaraan Program Pendidikan
11. Donnelly, R. (2010). Harmonizing technology with interaction in blended problem-based learning. *Computers & Education*, 54, 350-359.
12. Dreesen, T., Akseer, S., Brossard, M., Dewan, P., Giraldo, J. P., Kamei, A., ... & Ortiz, J. S. (2020). Promising practices for equitable remote learning: Emerging lessons from COVID-19 education responses in 127 countries.
13. Fabry, D. L. (2012). Using student online course evaluations to inform pedagogy. *Journal of Research in Innovative Teaching*, 5(1), 45-52.
14. Fearson, C., Starr, S., & McLaughlin, H. (2011). Value of blended learning in university and the workplace: Some experiences of university students. *Industrial and Commercial Training*, 43(7), 446-450. <http://dx.doi.org/10.1108/00197851111171872>
15. Francis C. & Baldesari. (2006). *Systematic Reviews of Qualitative Literature*. UK Cochrane Centre.

16. Freeland, J. (2015). Three false dichotomies in blended learning. San Mateo, CA: Clayton Christensen Institute.
17. Garrison, D. R., & Kanuka, H. (2004). Blended learning: uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105.
18. George-Walker, L. D., & Keeffe, M. (2010). Self-determined blended learning: a case study of blended learning design. *Higher Education Research & Development*, 29(1), 1-13.
19. Gomez, J., and Igado, M. (2008). Blended learning: The key to success in a training company. *International Journal of Instructional Technology and Distance Learning*, 5(8), 1-12.
20. Harding, A., Kaczynski, D., & Wood, L. (2005). Evaluation of blended learning: analysis of qualitative data. In *Proceedings of universal science blended learning symposium* (pp. 56–61).
21. Herdiana, D. (2020). Social Distancing: Indian Policy Responses To the Corona Virus Disease 2019 (Covid-19). *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu Dan Praktek Administrasi*, 17(1), 93-110.
22. Hilliard, A. T. (2015). Global blended learning practices for teaching and learning, leadership and professional development. *Journal of International Education Research*, 11, 179–187
23. Horn, M. B., & Staker, H. (2011). The rise of K-12 blended learning. *Innosight institute*, 5(1), 1-17.
24. Istifadah, I., Komariah, A., Amalia, K., & Thahir, M. (2020, February). Measuring Schools Readiness in Industry 4.0 Based on the School's Web Profile. In *3rd International Conference on Research of Educational Administration and Management (ICREAM 2019)* (pp. 409-413). Atlantis Press.
25. Jena, P. K. (2020). Impact of pandemic COVID-19 on education in India. *International journal of current research (IJCR)*, 12.
26. Kim, H. (2014). Effects of using mobile devices in blended learning for English reading comprehension. *Multimedia-Assisted Language Learning*, 17, 64–85.
27. Laurillard, D. (1993). *Rethinking university teaching: A framework for the effective use of educational technology*. New York: Routledge
28. Lebow, D. (1993). Constructivist values for instructional systems design: five principles toward a new mindset. *Educational Technology Research and Development*, 41(3), 4–16.
29. Levin, S., Whitsett, D., and Wood, G. (2013). Teaching MSW social work practice in a blended online learning environment. *Journal of Teaching in Social Work*, 33, 408-420.
30. Maarop, A. H., and Embi, M. A. (2016). Implementation of Blended Learning in Higher Learning Institutions: A Review of Literature. *International Education Studies*, 9(3), 41-59.
31. Macdonald, J. (2008). *Blended learning and online tutoring* (2nd ed.). Hampshire, UK: Gower.
32. Macedo-Rouet, M., Ney, M., Charles, S., & Lallich-Boidin, G. (2009). Students' performance and satisfaction with Web vs. paper-based practice quizzes and lecture notes. *Computers & Education*, 53, 375–384
33. Mitchell, P., & Forer, P. (2010). Blended learning: the perceptions of first-year geography students. *Journal of Geography in Higher Education*, 34(1), 77–89.

34. Nunan, T., George, R., & McCausland, H. (2000). Rethinking the ways in which teaching and learning are supported: the flexible centre at the University of South Australia. *Journal of Higher Education Policy and Management*, 22(1), 85–98
35. O'Toole, J. M., & Absalom, D. J. (2003). The impact of blended learning on student outcomes: is there room on the horse for two?. *Journal of Educational Media*, 28(2–3), 179–190
36. Okaz, A. A. (2015). Integrating Blended Learning in Higher Education. *Procedia - Social and Behavioural Sciences*, 186, 600–603. doi:10.1016/j.sbspro.2015.04.086
37. Pedersen, M. J., & Favero, N. (2020). Social distancing during the COVID-19 pandemic: Who are the present and future non-compliers?. *Public administration review*, 80(5), 805-814.
38. Perry, A., & Hammond, N. (2002). Systematic reviews: The experiences of a PhD student. *Psychology Learning & Teaching*, 2(1), 32–35.
39. Picciano, A. G., Seaman, J., Shea, P., & Swan, K. (2012). Examining the extent and nature of online learning in American K–12 education: The research initiatives of the Alfred P. Sloan Foundation. *Internet and Higher Education*, 15, 127–135.
40. Powell, A., Rabbitt, B., & Kennedy, K. (2014). iNACOL blended learning teacher competency framework. Vienna, VA: International Association for K–12 Online Learning.
41. Rooney, J. E. (2003). Blending learning opportunities to enhance educational programming and meetings. *Association Management*, 55(5), 26-32.
42. Sakina, R., Kulsum, E. M., & Uyun, A. S. (2020). Integrating technologies in the new normal: a study of blended learning. *International Journal of Quantitative Research and Modeling*, 1(4), 181-193..
43. Shahabadi, M. M., and Uplane, M. (2015). Synchronous and Asynchronous e-learning Styles and Academic Performance of e-learners. *Procedia - Social and Behavioral Sciences*, 176, 129–138.
44. Singh, H. (2003). Building Effective Blended Learning Program, *Educational Technology*, 43(6), pp 51-54
45. Singh, H. (2021). Building effective blended learning programs. In *Challenges and Opportunities for the Global Implementation of E-Learning Frameworks* (pp. 15-23). IGI Global.
46. Sun, L., Tang, Y., & Zuo, W. (2020). Corona-virus pushes education online. *Nature Materials*, 20200205. <https://doi.org/10.1038/s41563-020-0678-8>
47. Tam, M. (2000). Constructivism, instructional design, and technology: implications for transforming distance learning. *Educational Technology and Society*, 3(2), 50–60.
48. Thahir, M., Komariah, A., Asri, K. H., Widiawati, W., & Sunanengsih, C. (2021, February). The Leadership Capacity of the Principal in Improving the Quality of Learning During the “COVID-19 pandemic”. In *4th International Conference on Research of Educational Administration and Management (ICREAM 2020)* (pp. 160-165). Atlantis Press.
49. Vaughan, N. (2014). Student engagement and blended learning: Making the assessment connection. *Education Sciences*, 4, 247–264.
50. Verawardina, U., Asnur, L., Lubis, A. L., & Hendriyani, Y. (2020). Reviewing Online Learning Facing the “COVID-19 outbreak”. 12(3), 385–392
51. Voos, R. (2003). Blended learning what is it and where might it take us?. *Sloan-C View*, 2(1), 2–5.
52. Woltering, V., Herrler, A., Spitzer, K., & Spreckelsen, C. (2009). Blended learning positively affects students’ satisfaction and the role of the tutor in the problem-based

learning process: results of a mixed-method evaluation. *Advances in Health Science Education*, 14, 725–738.

53. Young, J. R. (2002). “Hybrid” teaching seeks to end the divide between traditional and online Instruction. *Chronicle of Higher Education*, A33.