

PERCEPTION TOWARDS BLENDED LEARNING AT THE TIME OF COVID-19 PANDEMIC

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Abstract

Blended learning mixes offline learning activities and resources with online learning activities and resources. The goal of blended learning is to minimise the time spent sitting in class, which is a significant advantage for a College / university. It might aid university officials with enhancing programmes that have low enrollment, reducing expenditures, and fulfilling staff teaching responsibilities. The study is focusing on the perception of the college students towards the online learning program during the pandemic. The blended learning is the unavoidable and safety method of teaching learning process during the pandemic. It is a qualitative study made in Chennai city. The students of higher educational institutions (Arts & Science and Engineering colleges) are considered as samples. 250 sample respondents are selected from the study are using simple random technique. The Google forms was circulated and collected the primary data. Assessment is a very important instrument for measuring the degree of knowledge that a student has in relation to the topic in which they are enrolled in any level of education. Teachers are able to give the lecture and measure student learning via the use of unique and inventive approaches when they use blended learning strategies.

Keywords: Online Teaching, Blended learning, Techno-pedagogy, Academic Analytics and education

Introduction

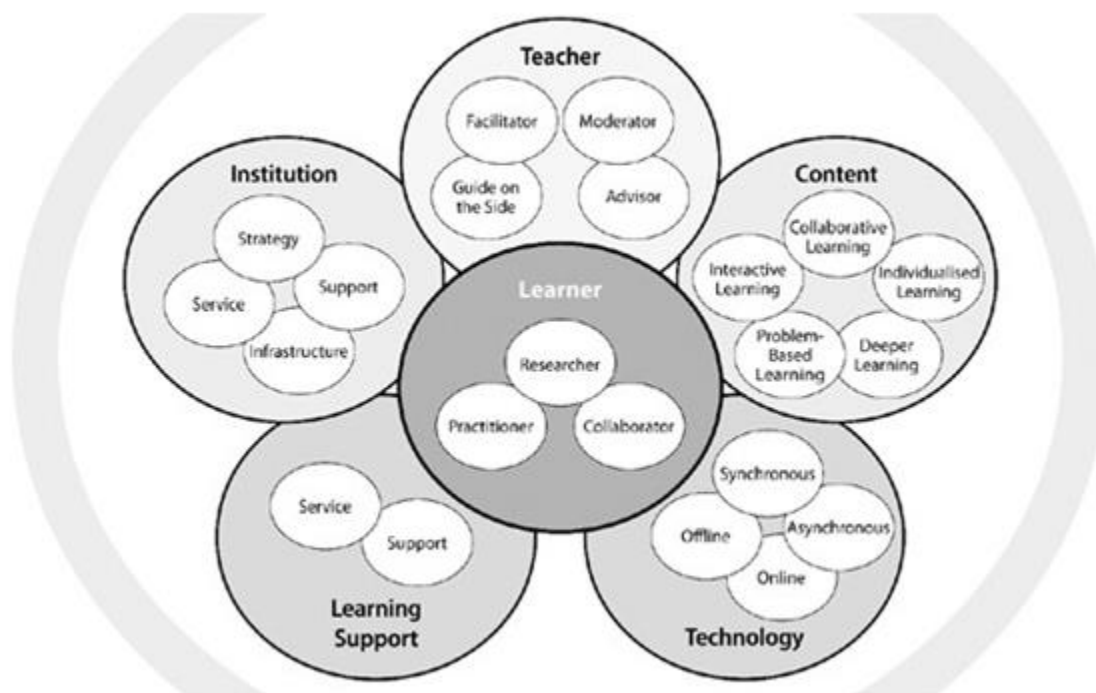
It is expected that education in the 21st century will undergo a transformation from the traditional face-to-face (F2F) mode to a techno-based independent mode. In this mode,

the primary emphasis will be placed on cultivating the potentials and creative abilities of the students in the most beneficial ways that are currently available. However, the provision of equal access to education, the assurance of fairness and justice, the timely delivery of need-based educational materials, and the engagement of learners by means of a well-designed pedagogical assistance with the most up-to-date online and blended learning technologies may be considered to be the catalyst for change as well as the answer for establishing the democratic ideal of education as a whole. Open education, when combined with traditional education, has increased the variety of learning opportunities available by placing an emphasis on the concept of "Bring your own device" as a method of instruction in the classroom. This has led to an increase in the number of chances for educational pursuits. These kinds of digital learning platforms include, for instance, open educational resources (OERs) and massive open online courses (MOOCs). When formulating a strategy for a healthy way of life in a community, these are the most significant aspects to take into account. Finger(2002)[13].Therefore, as a result of the proliferation of online technologies and the growing use of the internet and social media for the purpose of delivering education. This is due to the fact that online technologies are more accessible than ever before. Because to social constructivism, teachers are now able to reach out to each student, and students now have the opportunity to communicate directly with their professors as well as share their ideas and opinions with their classmates. "Blended learning" combines the learning that occurs in conventional classroom settings with that which occurs online. Using contemporary multimedia methods, it is now feasible to create teaching aids of a high standard that are centered on the needs of the students. Students may access electronic lectures whenever it's convenient for them, unlike face-to-face schooling, which helps them learn the material better and remember it afterwards. ICT may be used in a skilled manner to create content-rich, interactive classrooms that excite students to study and transform the educational environment by making it student-centered and the teacher the facilitator rather than merely the knowledge provider. Chee Ken Nee(2014)[9]. Through the use of blended learning, a teacher is able to assess a student's level of comprehension and supply him with electronic resources to help better explain various topics. Attractive e-lessons may boost learners' interest in e-lessons

History of Blended Learning

Higher education has undergone a sea shift as a result of technological advancements. At first, the only method of education available was the time-honored practice of face-to-face teaching, which required the teacher and the pupils to be present in the same room at the same time. This is an important point to keep in mind. As a direct consequence of this, there was a heightened effort made in the middle of the 1990s to expand the number of online courses that were available. In spite of increasing attempts to publish new courses, online education did not prove to be as successful as was anticipated. This was due to the fact that learning was mostly a passive activity. Blended learning is the name given to a third approach to education that has, over the course of the years, garnered widespread support from both educators and academic scholars. This method offers the best of both worlds since it

capitalizes on the benefits offered by a variety of learning theories, as well as web-based tools. Blended learning has the potential to create additional opportunities for students because it enables them to participate in in-person instruction on a regular basis while also providing them with the much-needed flexibility to advance at their own pace. Blended learning has the potential to create additional opportunities for students.

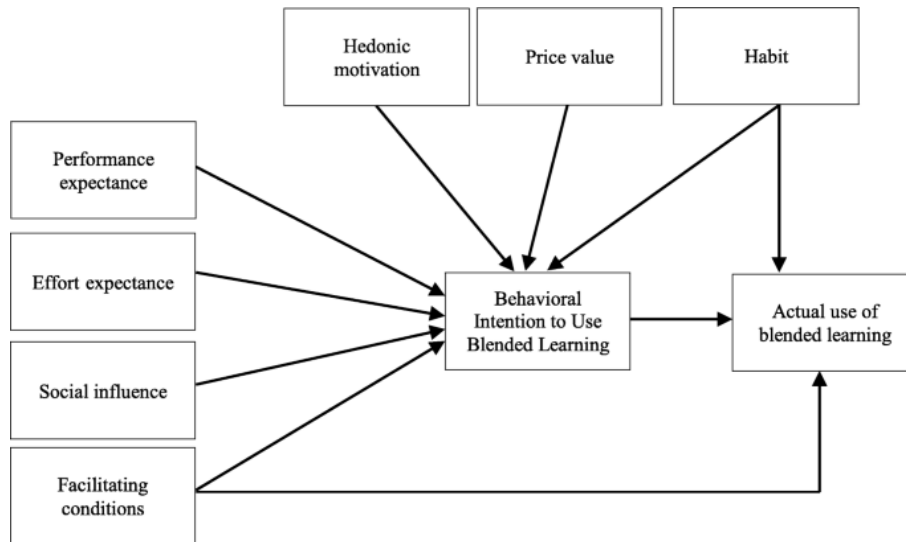


Learning that is blended or hybrid provides teachers and other academic leaders with an innovative alternative that enables them to make material accessible to students even when they are not physically present in the classroom. This assists in optimizing and maximizing the amount of work that each individual student does during face-to-face sessions (Kwesi Tandoh)[23]. The first ever distant education course was given by Sir Issac Pitman in the 1840s, which marks the beginning of blended learning's long and illustrious history. Postcards with shorthand texts were sent to students, and they were obliged to finish the assignments and bring them back to the instructor for grading and comments. Even if mobile devices and computers were not engaged, it is essential to highlight the fact that feedback and assessment played an incredibly vital role

Prospects of Blended Learning in India

Blended learning, as opposed to face-to-face or online learning, allows for more contact between teachers and students, which in turn gives students with access to a wider range of knowledge and opportunities. The level of engagement between instructors and students has increased, and students now have more opportunities to interact with teachers in order to acquire more knowledge. Because the online distribution of learning resources frees up face-to-face classroom teaching hours, teachers who use mixed modes of instruction have more time for personal interaction with students. The face-to-face classroom teaching hours

can then be used for learner-centric activities, improved engagement, and mentorship. Students are able to access and participate in their educational programme from any place and at any time thanks to the flexibility afforded to them by blended learning, which gives them an advantage that is unmatched by any other kind of education. Osguthorpe, and Graham (2003), [28] Blended learning provides students with the opportunity to study in a way that is both more interesting and more relevant to their lives. As a consequence, children who are exposed to technology at a young age may have an easier time seeing themselves working in fields that include the use of technology. Young children will have the opportunity to develop habits of cooperative learning that will better prepare them for future work and participation in civic life. Because the government and the community have shown interest in blended learning, there is a good chance that student participation and attendance will expand at mixed learning institutions. Because blended learning in schools necessitates new ways of thinking, students could get the impression that they have a genuine chance to build long-term personal and professional objectives as a consequence of these new ways of thinking. The Internet may be trustworthy and available at times, but this is not always the case. Students have the option of using conventional methods in the event that there are problems or outages with the network; nonetheless, they are encouraged to utilize the Internet whenever it is accessible. In addition, teachers may have access to student data, which enables them to conduct evaluations that will aid students in gaining the necessary skills. In the same way that cognitive criteria such as programme grades are used to examine learning results, emotional characteristics such as intrinsic motivation may also be used to assess learning outcomes, which is why motivation is regarded to be a consequence. (Kuo 2013)[25].The findings of certain studies revealed that students who have a high level of motivation are more likely to remain enrolled in their courses. The author explored that children who are less driven to study scored badly on knowledge examinations. On the other hand, kids who are extremely eager to learn performed well in school. It has been determined that one of the most essential factors in the success of online courses is the pleasure of the students. Islam (2014)[19] discovered that students were unhappy since they did not get timely feedback from their course teachers. Dissatisfaction was further exacerbated by the fact that technical obstacles and unclear instructions for the course were present.



As the number of COVID-19 cases continues to increase, educational institutions are stepping up their efforts to increase the amount of online learning possibilities available to students. This will allow students to participate in active learning and will allow teachers to provide additional assistance and scaffolding. It is not unreasonable to believe that the COVID-19 outbreak has resulted in a general transformation of the look of educational establishments of a higher level. Students have access to a variety of learning environments, including both traditional classrooms and online ones, which each have their own set of advantages and disadvantages. A rising number of educational institutions, including universities, are adopting a method of instruction that is referred to as hybrid or mixed media. This style of education combines traditional in-person classes held on campus with self-directed, asynchronous online. While taking part in hybrid or blended forms of education, students have the opportunity to learn both in-person and remotely, as well as set their own pace while working according to a predetermined schedule. Adile Askim Kurt. (2011),[3] this mode of education might become the new standard because it enables teachers to reimagine and alter the curriculum. This is especially true in fields of study in which teachers have historically struggled to provide students with an engaging educational experience when using the medium of online instruction.

Review of Literature

Alebaikan (2010)[4] investigated the attitudes of female lecturers and undergraduate students based on their experiences as participants in blended classes. The purpose of the research was to determine Saudi female undergraduate students' and lecturers' perspectives on the benefits, difficulties, and potential of blended learning. As a consequence of this, the primary aspects that have an impact on the perspectives of both the instructors and the students were explored, and suggestions for future study, strategy, and practice were offered. The examination of the phenomena was made easier with the help of the qualitative approaches that were employed to collect the rich descriptive data. The analysis of the data was done in the form of explanation and interpretation of the participants' perspectives of blended learning. This analysis was based on interpretive philosophy. The findings of the

research revealed that blended learning has the potential to provide students in Saudi Arabia with an effective learning environment. The study offered some insight into how the issues of adopting blended learning in Saudi Arabia's higher education system may be handled, which is useful given that there are always difficulties associated with adapting to new methods when they are used. It was decided to develop a theoretical framework for blended learning in order to give some insight into the aspects that impact the actual practice of blended learning. One of the most important takeaways from the research was that Saudi women may pursue their higher education in a blended learning setting while still adhering to their country's cultural norms and customs, which was one of the primary results.

Kintu, Zhu, and Kagambe (2017)[21]analyzed the link between student characteristics and background, design aspects, and learning outcomes in order to explore the efficacy of blended learning environments. The purpose of this research was to determine the key determinants of blended learning efficacy by using student characteristics and background as independent factors, and design elements as dependent variables, in a study that treated learning outcomes as the dependent variable. In order to collect information on student characteristics and backgrounds, as well as design elements and learning outcomes, a survey was sent to 238 people who responded to it. As a metric for performance as an outcome, the findings of the assessment given at the end of the semester were employed. The researcher used the online self-regulatory learning questionnaire to collect data on learner self-regulation; the intrinsic motivation inventory was used to collect data on intrinsic motivation; and additional self-developed instruments were used to collect data on the other dimensions. The findings of a multiple regression analysis revealed that aspects of the blended learning design (such as the quality of the technology, the availability of online tools, and face-to-face support), as well as student characteristics were significant predictors of the outcome of student satisfaction. According to the findings, some student traits and backgrounds, as well as design factors, seem to be important determinants of the learning outcomes of students participating in blended learning.

Eryilmaz (2015)[12]designed to combine aspects of traditional classroom settings with those of virtual learning environments. The research was carried out on 110 students at Atilim University in Ankara, Turkey, who are now enrolled in the introduction to computers course. Students participated in the session in a variety of different ways, including in-person, online, and hybrid formats. A blended learning environment that includes online content sharing, forums, exams, text, pictures, and lesson summaries that are accompanied by videos has been built. After the training was over, the students were given a rating scale to determine how beneficial the blended learning environment was for them. The findings of the research demonstrated that students' perspectives on mixed learning settings, as well as online and face-to-face learning environments, are significantly distinct from one another. Students have shown, via their responses that they are able to learn more efficiently when they are in a mixed learning setting.

Research problem

The great majority of instruction at traditional educational institutions with physical locations provided all of its instruction in a one-on-one environment. Face-to-face instruction has a number of benefits; one of these is the facilitation of direct contact in real time between instructors and students, as well as between students themselves. This, in turn, may encourage students to ask imaginative questions and participate in debates that are thought-provoking. Students have the option, within the confines of their own classrooms, to seek clarification or an answer to any queries that they may have. Leh (2002), [25]. Because it does not provide the possibility for face-to-face instruction, in-person class discussions, and organic bonding between instructors and students, online education might not be desirable to students. In order to complete the task, they will have a tough time avoiding activities that entail face-to-face learning in favour of working in front of computers.. In addition, because of this, instructors are able to recognize the nonverbal cues given off by their pupils and adjust not just the subject matter but also their method of instruction appropriately. Even though there are a number of benefits to attending classes on a college or university's main campus, it is impossible to ignore the lightning-fast transition that colleges and universities made to online learning. The benefits of online education that are most frequently highlighted include cost efficiency, the ability to engage in in-depth discussions, flexibility, the opportunity to work at own time and pace and self-directed learning. Other advantages include the capacity to hold in-depth discussions.

Objective of the study

The study is focusing on the perception of the college students towards the online learning program during the pandemic

Research Methodology

The blended learning is the unavoidable and safety method of teaching learning process during the pandemic. It is a qualitative study made in Chennai city. The students of higher educational institutions (Arts & Science and Engineering colleges) are considered as samples. 250 sample respondents are selected from the study are using simple random technique. The Google forms was circulated and collected the primary data.

Findings

The nature of the respondents describes in the study are gender, degree level and the educational stream they are studying. Out of the total respondents 250, the distribution of the respondents is given below in Table 1.

Table 1: Nature of the respondents

Nature of the respondents		Frequency	Percent
Gender	Boys	114	45.6
	Girls	136	54.4
Degree	UG	166	66.4
	PG	84	33.6

Stream	Arts`	72	28.8
	Science	124	49.6
	Engineering	54	21.6
Total		250	100.0

The classification of the respondents based on the gender shows that 114 (45.6%) are boys and 136 (54.4%) are girls. The students studying the degree level is found that 166 (66.4%) are under graduates and 84 (33.6%) are studying post graduation. The educational stream shows that 72 (28.8%) respondents are doing in arts stream, 124 (49.6%) are in science stream and 54 (21.6%) respondents are studying in engineering stream.

Perception

The perception of the students towards the online learning programmes indicates the reachability or success of the method. The features of the method of learning are asked among the respondents. They are technology advantages, opportunity for skill development, knowledge acquisition, more and easy materials available, convenience, availability of more and wide range of resource persons and wide coverage of topics and concepts. They are analyzed with the help of descriptive statistics as below.

Table 2: Perception towards online learning programme

Perception		Very low	Low	Average	High	Very high	Mean	SD
Technology	N	8	19	39	87	97	3.98	1.068
	%	3.2	7.6	15.6	34.8	38.8		
Skill	N	9	21	41	87	92	3.93	1.092
	%	3.6	8.4	16.4	34.8	36.8		
Knowledge	N	8	16	51	90	85	3.91	1.041
	%	3.2	6.4	20.4	36.0	34.0		
Provide materials	N	9	21	29	93	98	4.00	1.083
	%	3.6	8.4	11.6	37.2	39.2		
Convenience	N	13	22	42	90	83	3.83	1.139
	%	5.2	8.8	16.8	36.0	33.2		
Resourceful persons	N	5	41	49	81	74	3.71	1.118
	%	2.0	16.4	19.6	32.4	29.6		
Wide coverage	N	11	49	49	80	61	3.52	1.183
	%	4.4	19.6	19.6	32.0	24.4		

Most of the respondents' perception towards various features of the online learning method is found in high and very high level. More than 30% of the respondents for all the variables are in high and very high level of perception. It indicates that the perception of the respondents is very high and they feel good about the online learning method. The mean score shows the difference in the perception of the respondents towards various aspects considered in the study. The availability of the material in online learning process is found with more mean (4.00) followed by the technology advantage (3.98). Possibility for skill development (3.93) and knowledge development (3.91) are ranked third and fourth. It is

concluded from the result that availability of e-materials, advantage of technology, and possibility for skill and knowledge development are important things that attract the students. The perception of the respondents based on their nature is studied with the help of non-parametric tests as below.

Table 3: Gender and perception of the respondents

Perception	Gender	N	Mean Rank	Z
Technology	Boys	114	140.33	-3.138**
	Girls	136	113.07	
Skill	Boys	114	143.07	-3.702**
	Girls	136	110.77	
Knowledge	Boys	114	134.60	-1.915
	Girls	136	117.87	
Provide materials	Boys	114	142.72	-3.662**
	Girls	136	111.07	
Convenience	Boys	114	124.02	-0.310
	Girls	136	126.74	
Resourceful persons	Boys	114	132.11	-1.373
	Girls	136	119.96	
Wide coverage	Boys	114	132.62	-1.472
	Girls	136	119.53	
	Total	250		

The mean ranks show that the perception of the boys towards technology development (140.33), skill development (143.07), knowledge (134.60), availability of materials (142.72), availability of resource person (132.11) and wide coverage (132.62). But the perception of the girls is found more towards convenience (126.74). The Z score depicts that boys perception towards the technology (-3.138), skill development (-3.702) and material availability (-3.662) are significantly high.

Table 4: Degree and perception of the respondents

Perception	Degree	N	Mean Rank	Z
Technology	UG	166	127.31	-0.297
	PG	84	124.58	
Skill	UG	166	121.35	-0.680
	PG	84	127.60	
Knowledge	UG	166	124.02	-0.241
	PG	84	126.25	
Provide materials	UG	166	127.00	-0.248
	PG	84	124.74	
Convenience	UG	166	137.03	-1.879
	PG	84	119.67	
Resourceful persons	UG	166	130.66	-0.833

	PG	84	122.89	
Wide coverage	UG	166	133.61	-1.303
	PG	84	121.39	
	Total	250		

The perception of the respondents studying under graduation is high towards technology advantage (127.31), availability of material (127.00), convenience (137.03) availability of resource persons (130.66) and wide coverage (133.61). The respondents from post graduation studies have high mean rank for skill (127.60) and knowledge (126.25) developments through the online learning. The Z score shows that the above difference in the perception of the respondents according to their degree level is not significant.

Table 5: Academic stream and perception of the respondents

Perception	Stream	N	Mean Rank	Chi-Square (df-2)
Technology	Arts`	72	132.94	4.505
	Science	124	116.33	
	Engineering	54	136.63	
Skill	Arts`	72	129.36	3.818
	Science	124	117.58	
	Engineering	54	138.54	
Knowledge	Arts`	72	111.44	8.495*
	Science	124	124.15	
	Engineering	54	147.34	
Provide materials	Arts`	72	132.55	4.062
	Science	124	116.84	
	Engineering	54	135.99	
Convenience	Arts`	72	126.10	3.142
	Science	124	119.21	
	Engineering	54	139.14	
Resourceful persons	Arts`	72	123.83	2.350
	Science	124	131.39	
	Engineering	54	114.19	
Wide coverage	Arts`	72	118.94	8.996*
	Science	124	138.02	
	Engineering	54	105.51	
	Total	250		

The respondents' perception towards the online learning method depicts that the students from the science stream have high perception towards resource persons available in the online learning (131.39) and wide coverage (138.02). The respondents from the engineering stream have high mean rank for technology advantage (136.63), skill (138.54) and knowledge development (147.34), availability of materials (135.99) and convenience

(139.14). The difference in the mean rank is tested with the help of Kruskal Wallis test. Its Chi-Square value shows that perception of the engineering students on the knowledge (8.495) and the perception of the science students towards wide coverage (8.996) are significantly high.

Research and Practical implications

The arguments are confined to a study of a selection of Indian states that are meant to be indicative of the country as a whole, and it is merely a broad study. Due to the very low response rate in comparison to the total number of addressees who were given the questionnaire, the sample size could only be increased to a maximum of 250. The article will make it easier to have an understanding of the present state of affairs regarding online and hybrid forms of education in a country such as India. There is little question that the sudden start of the Covid-19 Pandemic was a contributing factor in the increased use of available online educational options. The research's focus on the benefits of online and blended teaching learning models. The outcomes of the research will allow for this to be performed successfully.

Conclusion

The deliberate integration of technology into teaching and learning in higher education institutions via the adoption of policies, the development of competencies, and the use of suitable, affordable technologies may really serve as a change-herald. As a result, this research was carried out in order to gain an understanding of the perspectives held by both educators and students regarding online and blended learning. The research was done to support the creation of a high-quality online and blended learning design that would help both educators and students successfully navigate any crisis scenario and now as well as in the future. It was also done to support the establishment of an acceptable road map at the policy level. Blended learning allows for a learning experience that is more adaptable, engaging, productive, easily available, and diverse for both the instructor and their students. The appeal of the blended learning approach rests in the incorporation of learning techniques that are assisted by technology in addition to the more conventional forms of education that are already in place. Assessment is a very important instrument for measuring the degree of knowledge that a student has in relation to the topic in which they are enrolled in any level of education. Teachers are able to give the lecture and measure student learning via the use of unique and inventive approaches when they use blended learning strategies. Within the scope of this research project, we investigate the process of blended learning and provide a rundown of the many positive aspects associated with incorporating blended learning strategies into educational settings.

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