

Reflecting on the Experiences of Universities in Advanced Countries in the Field of Blended Education; Lessons for Iran's Universities

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Abstract

The purpose of this study was to examine the experiences of top universities in the field of blended education in different countries in order to develop and improve the quality of blended education in Iran's universities. In order to reach appropriate solutions in this field, the researcher used the qualitative research approach and the comparative study method. The selection of top universities (Boston of USA, York of Canada, Manchester of England, Hong Kong Education of China, Open University of Malaysia) in the field of blended education was based on the official reports of the Times (2021) universities' rankings, which considered teaching and learning in the Covid pandemic era and online education. This approach was aligned with the purpose of the study and made the selection of universities possible for this study. In addition to the ranking of universities, geographical distribution and availability of data were considered in this regard. Relying on theoretical foundations, specifically in the realm of the exploratory community, in addition to examining the concept and approach of the university to blended education, categories such as the structure of the higher education system, the type of university, policies and strategies, management style, educational resources, educational and technological supports, teaching style, the tools and evaluation system were selected. Then George Brody's four-stage model was used to analyze the collected data. The findings showed that all five universities have officially presented a specific and systematic definition of blended education and in this regard targeted activities such as the development of technological infrastructure, educational and technological supports and efficient teaching methods according to the nature of blended education. As a result, a look at the structure and type of the higher education system of these universities illustrate that those who have enjoyed more independence have predicted a more creative planning and strategy in

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relation to the studied components. The support system in all five universities is prepared according to the cultural and social conditions of the audience. Teaching and face-to-face interactions between students and professors are carried out in regional units, and it is in this regard that students can benefit from professors' guidance in online classes and using software capacities during offline training. In all the studied universities, formative and final evaluation have been used to monitor the quality of the program. According to the results and these three strategies (educational changes, social changes, and cultural changes), and taking into account the existing infrastructure of virtual education in Iran, some lessons are proposed for blended education in Iran's universities.

Keywords: Blended education, comparative study, top universities, higher education in Iran.

Introduction

The COVID-19 pandemic has accelerated the adoption of online and digital education methods by many universities worldwide due to the need for complying with health protocols such as social distancing and the challenges of in-person classroom settings. E-learning emerged as an efficient way to meet educational goals during these unprecedented times, allowing universities to reach a larger number of learners anywhere and at any time while optimizing resources (Kumar, Krishnamurthi, Bhatia, Kaushik, Ahuja, Nayyar & Masud, 2021).

However, the reliance on online education raises important questions about whether it fully meets all the goals and visions of educational institutions. While online training has partially addressed the need for education, it lacks the dynamic interactions between students and professors that are integral to higher education. The transformative experiences and effective guidance obtained through direct communication in universities cannot be fully replicated in online courses. As a result, top universities around the world have turned to blended education as an alternative, combining online methods with traditional face-to-face classes to restore the dynamism and richness of university life.

Blended learning is seen as an approach that combines the content and interaction opportunities of online education with the benefits of in-person instruction. This flexible approach can be adapted to various educational situations, offering instructors and students different scenarios for physical presence and remote learning (Bonk & Graham, 2015).

The uncertainty surrounding the future of the COVID-19 pandemic and its impact on education has raised various questions about the direction of

higher education. The experiences of universities during the pandemic have led to a paradigm shift, with virtual education becoming a significant aspect of higher education. This rapid entry into the world of virtual education has prompted universities to consider broader changes in the form and content of their educational offerings.

Given this context, the researcher aims to learn from the experiences of top global universities in designing blended learning environments. The study seeks to create an exploratory community to examine various aspects, including policies and strategies, institutional structures, management methods, educational resources, technological supports, teaching methods, tools, and evaluation systems. By understanding successful models and experiences in this field, the study aims to propose suitable implementation solutions for blended education in Iranian universities.

Methodology

The research described here falls under the category of applied research, as it aims to address a practical problem by proposing strategies for implementing blended education in Iranian universities. In terms of nature, it is a qualitative research study, meaning it seeks to explore and understand the experiences and perspectives of top universities in the field of blended education. As for the degree of control of variables, this study is non-experimental, meaning the researchers do not manipulate or control any variables. Instead, they observe and analyze existing data and information related to blended education in the selected universities.

The research method employed is a comparative study, where the researchers compare and contrast the blended education courses in the selected universities (Boston in USA, York in Canada, Manchester in England, Hong Kong education in China, Open University of Malaysia). The selection of these universities was based on their success in blended education, as indicated by their rankings in official reports from Times (2021) that consider teaching and learning during the Covid pandemic and online education. The geographical distribution and available data were also taken into consideration during the selection process.

For data collection and analysis, the four-step method (George Brady) was utilized. First, document study was conducted to explore written and theoretical literature, as well as data and documents related to blended education courses in the selected universities. Next, the collected data were categorized, and the components of interest in the blended education courses were identified. Finally, after examining the similarities and differences among the universities' blended education courses, suitable and possible strategies for implementing blended education in Iranian universities were

proposed. To ensure the reliability of the study, the researchers applied comparative and narrative study protocols. They used logical models and multiple sources of evidence, creating a chain of evidence and continuously matching and comparing evidence and patterns (Madandar Arani & Kakia, 2015).

Findings

In this section (the obtained data) from the study of the state of Blended education in the studied universities, an attempt has been made to pay attention to the structure of the university, the policies and strategies of the university in the field of Blended education, the functional similarities and differences of the universities have been compared and the differences and similarities Their performance in this field should be extracted. Also, in order to make this university's approach to Blended education more obvious, in the first step, the operational concept of Blended education in each of the universities has been drawn. In the second step, university policies and strategies have been extracted, and in the final step, components such as institution type, university structure, approach, management style, educational resources, educational support and technology, teaching method, tools and evaluation system among universities in the field of Blended education has been compared.

Table1.The concept of Blended education among the studied universities

Universities		Concept Of Blended Education
1	Boston	Classes in which part of the traditional face-to-face training is replaced by web-based online learning. The Online Teaching and Learning Consortium defined blended learning as a course in which up to 70% of the instruction is delivered online. This training can lead to improving the success rate, satisfaction and continuity of the students' academic process.
2	Manchester	The purpose of Blended education is not the same as online education, but in fact, it is a new way of providing educational and learning services to students with the help of new technologies and in combination with conventional and face-to-face education that is implemented through virtual networks and educational technologies. Blended education is an effort to increase the number of lectures, seminars, laboratories, discussions and workshops based on high-quality online self-learning materials.
3	Hong Kong education	Taking advantage of online and face-to-face learning and teaching opportunities to enhance traditional "classroom" education and support interactive, creative, constructive and well-designed learning at any time and any place with higher effectiveness.
4	York	Consolidated training is not a substitute for online training, but is considered a subset of it. In Blended courses at York University, almost 80% of the teaching and learning process and materials are presented and organized online. Students in Blended courses performed better than students in fully online classes
5	Open University	Self-managed learning, face-to-face learning and e-learning. Access to quality education and provide lifelong learning opportunities by using technology, by

	of Malaysia	adopting flexible learning practices, and by providing an appropriate and attractive learning environment at a competitive and affordable cost.
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Taking a look at the table above shows that the concept of Blended education is important for selected universities from two perspectives: 1. Their perception and understanding of Blended education and the second is the effectiveness of this educational method. Therefore, there is a slight divergence in understanding the concept of Blended education in these universities. In such a way that in the three universities of Boston, Manchester and York, online education has more weight in the definition of Blended education, and two universities in Malaysia and Hong Kong have an almost equal share to both educational methods (traditional and virtual). And in terms of effectiveness, all five universities consider the use of Blended teaching method to be effective and efficient.

Table2. The type and structure of the studied universities, the policies and strategies of Blended education

University		Type	Structure	Blended Education Policies and Strategies
1	Boston	Private	Decentralized	<ul style="list-style-type: none"> • Improving e-learning by supporting short-term operational projects of students • Development of extra-organizational cooperation to hold online courses • Increasing investment in technology
2	Manchester	Public	Decentralized	<ul style="list-style-type: none"> • Development of learning in the context of new educational technologies • Continuous development of a wide range of skills and new teaching methods • Development of educational infrastructure in sync with the developments of society with a flexible education approach
3	Hong Kong education	Public	Decentralized	<ul style="list-style-type: none"> • Professional development to promote Blended learning in the university • Building a platform to promote and support Blended teaching and learning • Supporting the institution-oriented approach to strengthen the physical infrastructure of Blended education
4	York	Public	Decentralized	<ul style="list-style-type: none"> • Supporting professors in the field of creating and promoting online and consolidated education • Supporting the evaluation of consolidated courses through the Academic Innovation Fund
5	Open University of Malaysia	Private	Semi-concentrated	<ul style="list-style-type: none"> • Expanding access to quality education and providing lifelong learning opportunities using information technology • Developing flexible learning methods • Providing a suitable and attractive learning environment with a competitive and affordable cost • Developing and strengthening self-

				regulation skills.
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The findings from the table reveal that universities adopt broad and diverse approaches to blended education, which are influenced by their main missions and perspectives. To understand the higher education system structure of these universities, it can be observed that Boston, Manchester, and York universities operate in a decentralized system. In contrast, the universities of education in Hong Kong and Malaysia operate in a semi-centralized environment. Examining the type of universities studied, it is evident that Manchester and York universities are public institutions, Boston University is a private institution, and Hong Kong and Open University of Malaysia are a combination of public and private institutions. Based on specific policies and according to policy documents, all five universities have been actively moving towards the electronicization of blended learning and teaching.

Table3. Components of Blended education in the studied universities

	Item University	Boston	York	Manchester	O.U. Malaysia	H.N.E
Type of Institution						
1	Public		*	*		*
2	Private	*			*	
The Structure of the Higher Education System						
1	concentrated					
2	Decentralized	*	*	*		
3	Semi-concentrated				*	*
The University's Approach to Blended Education						
1	Active Learning	*				
2	Central Justice in Education		*			
3	Flexible Learning	*		*		*
4	Lifelong Learning			*		
5	Self-Centered			*	*	
6	Professional Development					*
7	Institution-Oriented					*
Blended Education Management Method						
1	Outsourcing	*	*			
2	Institution Building	*	*	*	*	*
Educational Resources						
1	Digital Library	*	*	*	*	*
2	Educational Videos, PowerPoint, Podcast	*	*	*	*	
3	University Networks	*	*			*
Educational and technological supports						
1	Financial Support	*				*
2	Improving The Capability of Information Technology	*	*	*		*
3	Mental Health			*		
4	Individual Technical Support		*	*	*	

5	Educational Support	*			*	*
Teaching Method						
1	Collaborative		*	*	*	*
2	Flipped Classroom	*				
3	Problem Solving	*	*	*	*	*
4	Dialectic	*				
5	Project Oriented				*	
Tools						
1	Educational System		*	*	*	
2	Software	*	*		*	*
3	Social Networks	*	*	*	*	
Evaluation system						
1	Formative	*	*	*	*	*
2	Final	*	*	*	*	*
3	Conditionally			*		
4	Comprehensive			*		*

The table above provides information on the Blended education courses in the studied universities, categorized into 9 components. From the perspective of the type of institution, there are 3 public universities and 2 non-governmental universities, and from the structural point of view, there are 2 semi-centralized universities and 3 decentralized universities. Among the components, flexibility in education is one of the most emphasized subjects in these universities. This reflects the importance of providing adaptable and flexible learning options for students to accommodate their diverse needs and preferences. The management of Blended education is another crucial component highlighted in this field. The universities have established institutions responsible for managing the education course, ensuring efficient and effective implementation of blended learning initiatives. Some universities have also collaborated with IT companies in the private sector to develop and support the technical infrastructure required for blended education. The presence of active and up-to-date digital libraries in all five studied universities is noteworthy. These libraries provide access to valuable educational resources for professors and students, enhancing the overall learning experience.

Promoting information technology capabilities among professors and students is a significant focus in the studied universities. They have implemented courses and platforms to train and support faculty and students in using virtual spaces and producing educational content efficiently. The teaching methods employed by professors in these leading universities are largely governed by problem-solving approaches. Web-based educational software is commonly utilized for both instruction and conducting tests, providing interactive and engaging learning experiences. To address criticism and improve the quality of virtual and blended courses, universities have been working on enhancing evaluation methods over the years. Various

tools, such as software for formative and final assessments, have been adopted by the universities. Some institutions, like Manchester, have even implemented comprehensive and conditional evaluation systems for their blended courses.

Discussion

The findings suggest that a strategy of educational changes is necessary to effectively implement blended education in the higher education system. This strategy should prioritize constructive-participatory processes, emphasizing social partnerships and interactions to shape and test concepts through collaborative understanding and knowledge.

To realize this strategy, several solutions are proposed:

1. Rebuilding the national curriculum with an emphasis on blended and interdisciplinary approaches: This involves making the curriculum smarter, enhancing the adaptability of programs to the needs of learners, recognizing local and regional differences, and avoiding homogenization in the executive organization of the curriculum.
2. Initiating study courses for continuous improvement of university education to develop professors professionally: This recognizes the importance of equipping professors with the necessary skills and knowledge to effectively facilitate blended learning experiences.
3. Launching the "Blended Learning Challenge" project: This project aims to create an environment that encourages experimentation and innovation in blended learning approaches, fostering creativity and effectiveness in educational methods.
4. Presenting a blended education model within the framework of lifelong education: This model should place greater emphasis on meeting the individual needs, differences, and abilities of learners, while promoting self-learning and self-confidence.

Strategy of social changes (social responsibility of universities)

In fact, universities prepare platforms and play the role of implementing initiatives in addition to leadership. The social responsibility of the university is a normative expectation from the university as a social institution that pays attention to the present and future needs of the beneficiaries (internal and external), social welfare, quality of life, elimination of social and environmental damages, peace and coexistence, and sustainable development. Among the solutions to realize this strategy, we can refer to:

- Setting up a comprehensive social responsibility network

- Implementation of joint projects with non-governmental organizations and universities in order to empower social activists
- Political and financial support for international networks of academics in order to develop scientific and humanitarian diplomacy
- Formation of an academic innovation fund

Strategy of Cultural Developments

The strategy of cultural changes aims to instill a sense of social commitment towards knowledge, technology, and innovation within society. The goal is to raise public awareness about the importance of knowledge, technology, and innovation in driving national development. By creating an environment that fosters creativity, innovation, and technological progress, the society can thrive and adapt to the demands of the modern era.

To effectively implement this strategy, the following solutions are proposed:

1. Holding student meetings and brainstorming sessions: These gatherings will promote a culture of using information technology in university courses, encouraging professors and students to embrace integrated education and modern technologies in their teaching and learning practices.
2. Offering courses in moral education, life skills, and citizenship education
3. Organizing consolidated joint courses with central universities or other universities equipped with virtual infrastructures.

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