

# A Blended Learning Framework for Saudi Higher Education

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## Abstract

Blended learning has a great potential for the development of Saudi Higher Education. However, careful consideration of the concept of blended learning and pedagogy strategies is essential for promised outcomes. This paper presents a theoretical framework composed of five themes that are considered key factors in formulating a blended learning framework that can be used in Saudi universities. The ultimate aim of the framework is to outline the factors that influence the implementation of blended learning. The proposed blended learning framework is important as the focus in the literature is on theories for blended learning design. Although this framework is specifically related to the implementation of blended learning in the universities of Saudi Arabia, I am confident that the assumptions and recommendations contained herein will be of great value to similar contexts. It is hoped that this blended learning framework provides a broad insight on how blended learning can be implemented in Saudi Higher Education.

## Keywords

Blended learning; Higher Education, Saudi Higher Education;

## Introduction

The use of the Internet in education has strongly influenced teaching and learning in the twenty-first century. In general, universities are recognizing the need for a change in Higher Education. Young (2002) points out that not all students learn in the same way, therefore the traditional approach is not ideal for all students. Littlejohn and Pegler (2007) indicate that e-learning is the way to tackle the global challenge of meeting the demand for Higher Education. With the expansion of the Internet, university courses were developed to be taught online to provide access to Higher Education. However, entirely online courses have been criticized for the lack of socialization and support benefits of traditional instruction (Bersin & Associates, 2003). Therefore, universities have realized the importance of blending face-to-face with online instruction when developing new educational processes.

This paper aims to present a blended learning framework as a theoretical contribution to the research of blended learning. The objective of this paper is to provide a broad insight on how to

implement blended learning in Saudi Higher Education. The proposed framework is formulated based on my knowledge of the Saudi context and the literature of blended learning. Although this framework is specifically related to the implementation of blended learning in Saudi Universities, I am confident that the assumptions and recommendations contained herein will be of great value to similar contexts. The framework is composed of five factors: The Concept of Blended Learning, Implementation and Support, Blended Pedagogy, Ethical Considerations and Evaluation and Development. The next sections present the definition of blended learning, its rationale, its status in Saudi Arabia and a discussion of the proposed framework.

### Blended Learning Definition

The significant presence of web-based instruction over the last few years has led to the emergence of the term *Blended Learning*, which is also called *hybrid learning* or *mixed-mode learning*. Blended learning has been identified by the American Society for Training and Development as one of the top ten trends to emerge in the knowledge delivery industry (Rooney, 2003). Significantly, there is no existing universally agreed definition of blended learning (Sharpe, Benfield, Roberts & Francis, 2006) while the most common definition refers to an integration of online learning and traditional face-to-face learning. Graham (2006) indicates that online (web-based) learning and face-to-face learning have remained largely separate in the past due to the differences in their methods and audience needs. He points out that 100% online learning, or distance learning, requires more self-paced learning and learner-materials interactions when compared with (traditional) face-to-face learning that places priority on human-human interaction. However, with innovations in technologies, facilitating human interaction in synchronous and asynchronous online learning has encouraged the integration of face-to-face environment with online environment.

Among different definitions of blended learning, Graham, Allen, and Ure (2003) documented three common definitions which are: combining instructional modalities or delivery media, combining instructional methods, and combining online and face-to-face instruction. However, Graham (2006) argues that the first two definitions are too broad because they encompass most learning systems in which courses involve at least two instruction methods or modalities, (i.e., face-to-face lectures and text book readings). The last definition, which combines online and face-to-face instruction, can be implemented in three ways: providing online materials similar to the course contents (enabling blend), providing online materials as supplementary resources (enhancing blend), and replacing portions of the face-to-face contents with online materials (transforming blend).

Placing this study within a conceptual framework, I will use the definition of the 2005 Sloan-C Workshop on Blended Learning because it fits the circumstances of the Saudi context where

reducing seat-time is a solution to the rapid educational growth of Saudi undergraduate students. In the Sloan-C Workshop, the participants adopted the definition of blended learning where a portion of face-to-face time is replaced by online activity in a planned, pedagogically valuable manner (Laster, Otte, Picciano & Sorg, 2005).

### Rationale for Blended Learning

Blended learning provides more guidance for e-learners and adds more flexibility and accessibility for in-class learners by integrating face-to-face learning with web-based learning. Garnham and Kaleta (2002) state that the flexibility of the blended design enable the lecturers to accomplish course learning objectives more successfully within a blended course than within a traditional course. Obviously, the most common purpose of blended learning is the possibility of combining the best of both traditional and online learning (Young, 2002; Graham *et al.*, 2003). According to Jones and Lau (2009), universities are moving from a completely online delivery to a blended learning mode because of the importance of a human element, as supported by Cooper (1999, p. 26, cited in Jones & Lau, 2009) who remarks that, "...electronic contact cannot currently sustain the qualities and multi-dimensionality of the kind of tutor-student relationship that real learning seems to require". Garrison and Vaughan (2008) state that "blended learning addresses the issue of quality of teaching and learning" (p. 153).

The blended mode is preferred over completely online courses by undergraduate students. A study by Owston, Garrison and Cook (2006) on blended learning in Canadian universities observed that lecturers of a Canadian university argued that face-to-face contact was necessary for some first-year university students who need more guidance and that was the purpose for transforming fully online course to a blended format. A larger research study by Sharpe *et al.* (2006) reviewed over 300 studies of blended learning in the UK and reported that among the rationales for blended learning are, "flexibility of provision, supporting diversity, enhancing the campus experience, operating in a global context and efficiency" (p. 3).

Studies have shown overwhelmingly that blended learning is used to facilitate access and flexibility, improve pedagogy, simplify revision and increase cost-effectiveness (Graham, Allen, & Ure, 2005) and improve performance. Moreover, the lecturers of University of Glamorgan agreed that the blended mode facilitated a better understanding of different learning styles and pedagogies, which is considered an essential move towards change in education (Jones & Lau, 2009). The flexibility and accessibility offered by blended learning has been identified as a means for providing Higher Education to a broader population regardless of geographical situation and culture. For example, it facilitates learning for students who live far away from the university or have other commitments

that conflict with the on-campus class time. The advantage of blended learning for rural areas was acknowledged by Yudko, Hirokawa and Chi (2008) in a study exploring students' attitudes towards combining online learning with face-to-face learning in the State of Hawaii. The students had a positive attitude toward blended courses with the strongest support from those who were the most computer/Internet literate. Moreover, the use of blended learning as a learning development approach could address such health disasters that affect the stability of traditional studying at all education levels such as the SARS epidemic in China (Huang & Zhou, 2006) and the 2009 H1N1 Virus pandemic.

In addition, interaction via virtual environments enables confidence in presenting opinions and helps to overcome student shyness. Specifically, Tubaishat, Bhatti and El-Qawasemah (2006) discussed the unique culture in Arab countries where individuals of different genders have restrictions on meeting and communication due to the social, cultural, and religious reasons. Moreover, student performance was also reported as an advantage of the blended mode in large classes (Rodanski, 2006). A blended course was redesigned to respond to the challenge of delivering tutorials to large classes with timely assessment and feedback replacing class tutorials by web-based activities. Obviously, this design was selected for technical, field-of-practice engineering subjects. The initial findings of the study have shown excellent student performance, with the average final score rising from 51 to 68 and the failure rate dropping from 42% to 15%. However, Rodanski (2006) claims that it is still too early to draw any definitive conclusions, by saying "We hope that future results will confirm the validity of our approach" (p. 4).

In Saudi Arabia, the shift to blended courses by the College of the Applied Studies at King Saud University was intended to address the increase in the number of female undergraduate students in fully traditional face-to-face courses. Consequently, the challenge was to solve the problem of a lack of qualified lecturers and lecture room space. Similarly, this solution was employed by the University of Central Florida to address the shortage of classroom space. Significantly, the flexibility of blended learning offers Saudi females a convenient way to maintain their family responsibilities while participating in the opportunity offered by the government for further Higher Education. The flexibility of blended learning for students with family commitments, particularly students who have children, were acknowledged by other contexts such as New Zealand, as stated by Wright, Dewstow, Topping and Tappenden (2006).

### Blended Learning in Saudi Arabia

The National Centre for E-learning and Distance Learning was established to support e-learning implementation in Saudi Higher Education. The Director of the Centre announced that the Ministry was investigating the prospect of reducing class attendance hours for university students after

shifting to e-learning (National Centre for E-learning, 2008). He stated that with the new learning system students need not have 100 percent class attendance as modern technologies will facilitate communication with lecturers. This indicates that the Ministry of Higher Education understands blended learning as a combination of face-to-face instruction and online instruction with a reduction in seat time. This concept of blended learning has been adopted by several institutions around the world, such as the University of Phoenix, the University of Central Florida, the University of Wisconsin-Milwaukee, the University of Calgary, the University of Wollongong, Bournemouth University and Glamorgan University.

The first implementation of blended learning was approved in October 2007 by King Saud University in Riyadh at the College of Applied Studies and Community Services for female campus. Blended learning offers flexibility for female students who have a greater emphasis on family duties as well as to employers (males and females), because they would not have to attend weekly face-to-face classes. Online instruction will greatly expand the resources and interaction opportunities for female students. Online learning would allow for increased interaction between female students and lecturers, even if they are male, whereas face-to-face interaction is not permissible. Therefore, blended learning would allow more interaction between lecturers and students, which would lead to more effective learning processes. Furthermore, the rapid development in adopting blended learning in Saudi Higher Education has been identified in King Khalid University in the Southern Province of Saudi Arabia. In 2009, King Khalid University has enabled three types of e-courses: supplementary level, blended level, and entirely online level. King Khalid University, located in the south province of Saudi Arabia, has recently adopted a Five-Year Strategic Plan for enhancing the quality of education. The plan includes an e-learning project which aims to make 10% of the overall curriculum (2% per year), electronically available in the blended mode. It is expected that more colleges will offer blended courses in the near future.

Globally, a Certificate in Blended Teaching and Learning is awarded by Sloan Consortium (Sloan-C), an organization in the United States dedicated to integrating online education into the mainstream of Higher Education, upon successful completion of a development program in blended teaching and learning. The program includes a three-part workshop in which participants have the opportunity to learn about blended teaching approaches, as well as how to design and develop blended course content. The National Centre for E-Learning and Distance Learning offered part of this certificate as a workshop of Lecturer Development for Blended Teaching and Learning at the E-Learning International Conference 2009 in Riyadh. Furthermore, the First International Conference of E-Learning and Distance Learning in Saudi Arabia, Riyadh in 2009 issued a set of recommendations that reveals the movement towards blended learning in Higher Education.

## Theoretical Contribution: A Framework for Blended Learning

Implementing blended learning in an educational environment that has relied on a traditional didactic system for a long period requires careful strategies. This paper presents a theoretical framework composed of five themes that are considered key factors in formulating a blended learning framework that can be used in Saudi universities, particularly at an institutional or program level. The ultimate aim of the framework is to outline the factors that influence the implementation of blended learning. This framework can be considered as a theoretical contribution to the research in blended learning as it contains the essential elements of a theory based on description and explanation (Whetten, 1989). The elements are: *what* factors constitute this theory, *how* these factors are related, *why* the factors are proposed with this relationship, and *what* are the boundaries of generalizability.

Figure 1 illustrates how these five factors formulate a framework for blended learning implementation and the relationship between them. For example, the blended concept is the main factor that underpins all of the other factors. Next, the implementation and support are influenced by the concept and have an impact on the other three factors. Then, ethical considerations influence blended pedagogy and evaluation and development while it is underpinned by the concept and the implementation, including the available infrastructure. Lastly, evaluation and development factors are influenced by all of the factors starting from the blended concept up to the blended pedagogy. The following sections discuss these elements in respect to the proposed blended learning framework.

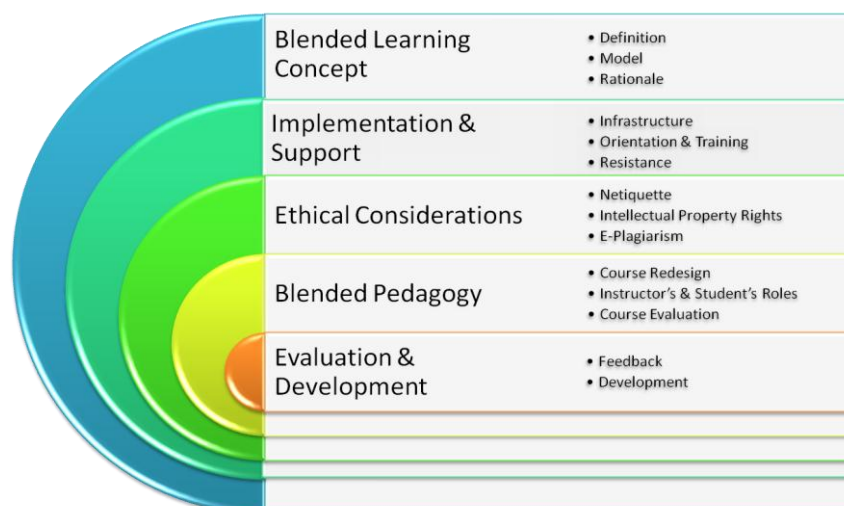


Figure 1: Blended Learning Framework

## **Blended Learning Concept**

Blended learning is new to the university environment in Saudi Arabia. The transition to blended learning requires a clear understanding of this concept including a selected definition, design and rationale for this new environment. All of these elements have to be introduced to lecturers and students who are central to this learning environment. Introducing the rationale for blended learning is likely to reduce teaching resistance expected with any new change. Certainly, the acceptance of a new learning environment is strongly related to clarity and ambiguity of its concept.

Recognizing the distinction between blended learning and e-learning would assist lecturers and students to recognize their roles within this learning environment. There is a significant difference between blended learning and e-learning. The latter is commonly understood as entirely online learning with no face-to-face learning. The common definition of blended learning emphasizes the role of face-to-face instruction. Thus, an understanding of the nature of this new learning environment is influenced by the utilized term and consequently has an impact on the students' attitudes towards the change in the learning approach. The use of the term *blended learning* would enable the students to better understand the nature of this learning environment. A good example of clarifying the definition of blended learning is the University of Florida's approach of designating their courses with letters according to the type of blending (Dziuban *et al.*, 2006). The different approaches of blended learning in particular and education in general place more demands on institutions to define the term *blended learning* with its various classifications. This would help to diminish lecturers' and students' confusion. As a conclusion, it is essential that Arabic institutions aiming to adopt blended learning use the correct term and educate their staff and students in the differences between blended learning and e-learning.

The flexibility of blended learning design is acknowledged in several studies and verified as an enhancement in learning. However, Sharpe *et al.* (2006) contend that blended learning models should be developed according to local, community or organizational requirements. The design model of blended learning must vary according to the percentage of web-based instruction, elements of the blended learning, and the objectives of the course. However, blended courses should not have less than 25-50% and not exceed 70% of the course credit as web-based instruction, in order to retain both advantages of online instruction as well as the advantages of face-to-face instruction.

## **Implementation and Support**

Infrastructure and support for using teaching and learning tools and employing effective teaching and learning strategies in blended courses is recognized as a crucial element. In Saudi Arabia, the

negative perceptions of conservative families towards the availability of the Internet at home are expected to change however more consideration has to be given when blended learning is implemented in rural areas. According to Huang and Zhou (2006), the tool of the virtual learning environment plays an important role in their learning process as a means to communicate and cooperate. LMS developers provide similar fundamental features and functions and endeavour to offer LMS that contains all key features (Monsakul, 2007). Jusur, an LMS developed by the National Centre of E-learning and Distance Learning, is expected to provide further services for lecturers to facilitate effective online teaching. Although development of these tools is required, the more important issue is how to utilize the tools effectively.

It is noteworthy that there is a low level of knowledge about blended learning in Saudi Higher Education. Providing blended learning in an educational environment with no online learning experience requires thorough orientation, well-prepared support and training programs for students and lecturers. According to Moore and Aspden (2004), e-learners were able to use the new system more easily because of the thorough orientation and user-friendly virtual learning environment. In addition, offering students preparation programs for blended learning needs to be continuously developed to provide the required IT skills and knowledge that meets the expected future development of blended course design. Oliver and Herrington (2003) contend that an independent online learner requires a relatively high level of technical skills to diminish any anticipated technical problems in the learning experience. Certainly, the level of IT skills influences the students' satisfaction. Moreover, blended learning, unlike traditional learning, requires a high level of student discipline and responsiveness. It could be suggested that applying blended learning programs to senior undergraduate classes, as a first stage of the blended learning implementation, would help to ensure appropriate levels of student discipline and responsiveness. Moreover, the advantages of blended learning could be recommended and offered to post graduate students.

Teaching blended courses should not be implemented without first identifying the lecturers' technical and teaching abilities that enable them to succeed in this new environment. Resistance teaching blended courses could be a result of inadequate skills, not believing in the effectiveness of blended learning, or avoiding the extra workload of transferring to blended courses. Moreover, Dziuban *et al.* (2006) stress the significance of lecturers support for course redesign and learning new teaching and technology skills. Appropriate pedagogical skills are required for teaching blended courses. Providing professional development programs for lecturers would help in understanding sufficient teaching strategies such as integration, moderating online discussion, and introducing new online activities that facilitate interaction and engagement. Significantly, offering

the lecturers the experience of being a learner in a blended environment in their own training will enable them to facilitate a better blended learning experience for their students.

### **Blended Pedagogy**

According to Cook (2002), “the theoretic basis from a pedagogical perspective is very rudimentary, with much of the development being on the technical level” (p. 23). This challenge requires very serious consideration with a better understanding of how to employ the appropriate theory or practical model. Lecturing strategy, which is a teacher-centred approach commonly used in Saudi Universities, has impact on students’ motivation and engagement in face-to-face class time. Thus, active learning strategies have to be utilized along with the lecturing method to enhance motivation and engagement (Felder & Brent, 2009). Lecturers have to be aware that students who are surrounded by the digital world are no longer motivated or satisfied by traditional teaching methods. It is hoped that a future development of the blended courses design would consider this approach, as well as active learning strategies, to increase students’ motivation and engagement during face-to-face class time.

Understanding the role of the lecturers and students in blended courses is a critical challenge. Because high engagement and motivation is a sign of a successful learning process (Oliver & Herrington, 2003), the lecturers need to recognize what it means to be a facilitator to foster student engagement. Switching from a lecturer-centred strategy to a student-centred strategy requires lecturers to recognize their role in developing skills for critical thinking and fostering dialogue in education. Adding to Owston *et al.* (2006), it is the quality and value of interaction that influences the quality of the learning experience in Higher Education. In the blended learning environment, students are expected to have a new role as independent learners. It is a challenge for lecturers to help their students to understand and practice their new role in the blended learning environment and to address any resistance. Thus, students need scaffolding and guiding in this new learning environment. Several studies (Chao, 2006; Nussbaum, Alvarez, McFarlane, Gomez, Claro & Radovic, 2009) assert that scaffolding is an effective teaching strategy that supports student collaboration and can help improve teaching and learning in Higher Education.

Furthermore, there are many social networks that would motivate the Internet generation learners, enhance interaction and diminish students’ isolation in online environments. This leads us to the need to offer new technology tools that could enhance interaction to reinforce social activity and motivate new students. Stacey and Gerbic (2008) state that new blending potentials that contain the latest learning technologies, such as podcasting and social networking tools including blogs and wikis, are supported by the technology rich experiences of some Net Generation students. One of the challenges that may be encountered in Saudi Arabia is whether such tools are supported by the

Arabic language. It is predicted that enhancing the learning process would involve such strategies that are used broadly by people for non-academic purposes. However, integrating e-learning 2.0 with traditional learning would involve learning new teaching skills. In conclusion, adequate quality of e-pedagogy has impact on students' engagement and motivation.

### **Ethical Considerations**

Ethical issues have to be considered in education, particularly when new technologies are adopted. According to Jefferies and Stahl (2005), there is a lack of attention to ethical issues in respect to blended e-learning. Universities need to develop policies that address the ethical issues when implementing blended learning with more focus on plagiarism and Intellectual Property Rights (IPR). It is noteworthy that there is a lack of awareness of IPR and plagiarism in undergraduate studies in Saudi universities. Various student behaviours in the online environment have to be considered. Netiquette (Internet etiquette) has to be established by universities to guide their students to the rules of proper use of the Internet in learning. Each blended course lecturer is recommended to develop her/his own course netiquette to provide students with the proper use of the Internet within that particular course. For example, lecturers might direct their students to the required format of subject titles for online discussion messages or they might specify word count guidelines for online discussions. In addition, netiquette has to be developed for a general use of the Internet by the institution. Providing netiquette for learners is important to prevent misunderstandings in written communication and to maintain a respectful online voice. Furthermore, a local netiquette needs to be developed to reflect Saudi Arabia Islamic values and norms.

Moreover, there is a lack of awareness of the copyright and moral issues in online learning in Saudi Arabia. This issue is not isolated to Saudi. Casey (2006) reports that "many consider that there has been a lack of awareness about Intellectual Property Right issues in e-learning in UK educational institutions, especially regarding the use of third party materials" (p. 3). In the meantime, it is strongly recommended that the Saudi National Centre for E-learning develop national guidelines that consider IPR in e-learning. Furthermore, e-plagiarism is a serious challenge in blended learning. This view is influenced by the lack of knowledge about plagiarism and its consequences among university students. According to Sutherlnad-Smith (2008), "Some students understand that they should not take words or ideas without attribution to the source, but they do not understand why not - other than to avoid university penalties" (p. 155). It is obvious that the lack of university policies towards plagiarism for undergraduate studies influence Saudi lecturers. The lack of awareness of plagiarism in universities clearly can be a sign of plagiarism in traditional learning. This conclusion confirms the study of Hamdan (2006) about the presence of plagiarism in Arab

universities. However, there is a dearth in the Arabic literature that investigates plagiarism in Higher Education particularly in undergraduate studies. Recently, awareness has been given to developing ethical policies associated with plagiarism. There has been a debate between researchers on whether the Internet is the cause of the increase in student plagiarism (Sutherland-Smith, 2008). Don McCabe (2003, cited in Sutherland-Smith) agrees with the opinion that the Internet has not led to a significant rise in plagiarism among students but it has given more space for those who plagiarise. To look at McCabe's view in another way, the Internet also provides online resources to students who practice plagiarism unintentionally. In order to address the e-plagiarism issue, students should be educated and guided by their lecturers about the plagiarism policies of the university. Administration rules and policies that clarify the types of plagiarism and its consequences would help in decreasing this unethical behaviour.

### **Evaluation and Quality of Learning**

Administration should survey students and lecturers in blended courses at the end of semesters to investigate their experiences. A quality experience for students is a goal in most institutions and universities. Most universities investigate students' learning experiences (Wend, 2006; Oliver & Herrington, 2003) and their feedback is the principal data source for quality assurance processes associated with teaching. In Saudi Arabia, most universities have started to ask students to complete course evaluations as part of lecturers' assessments. Regular evaluation using students' and lecturers' feedback assists in developing the program and enhancing the quality of the learning.

Blended learning incorporates independent online learning, which requires a high level of technical skills (Oliver & Herrington, 2003) and the ability to utilise new tools such as social networks that encourage interaction and collaboration and diminish isolation. Therefore, continuous development of the online tools and activities utilized in blended learning would meet the Net Generation's expectations. The future development of blended learning programs in Saudi Arabia could give lecturers the opportunity to benefit from the flexibility of blended learning design and facilitate the enhancement of this learning process. Thus, I strongly suggest establishing a blended learning centre that gives assistance and approval to blended course designs proposed by lecturers. This centre could help in developing standards that guide the design of blended courses to facilitate the role of institutions aiming to implement blended learning. This study proposes a blended learning framework that needs further evaluation and development.

In conclusion, the implications of each factor of the blended learning framework are presented in Table 1. The table shows the responsibility of the institution and/or the lecturers for the implementation of each factor. These responsibilities illustrate the need for the proposed relationship between the factors. Certainly, institutions implementing blended learning at an

institutional level have to support the lecturer's and student's roles. For example, institutions need to consider the lecturers' contribution to the institutional decisions such, as the blended model decision.

Table 1: Factors for Implementing Blended Learning.

Responsible	Factor	Description
Institution & Lecturers	Blended Concept: Definition	Illustrate the definition that underpins the blended concept in which a portion of F2F learning is replaced by online learning
Institution & Lecturers	Model	Decide on a particular model that clarifies the percentage of online portion and F2F portion
Institution & Lecturers	Rationale	Clarify the rationale behind this concept with more emphasis on pedagogical issues
Institution	Implementation and Support: Infrastructure	Provide required computer labs, including Internet access. Provide lecture halls with required technologies
Institution	Orientation and Training	Introduce the blended concept, the model and the rationale to the lecturers and students. Assess students IT and study skills and suggest required training before enrolment in blended courses. Assess lecturers IT and teaching skills and suggest training accordingly. Introduce student-centred strategies to lecturers and students as an alternative approach of F2F instruction
Institution	Resistance	Address any resistance by lecturers or students
Institution & Lecturers	Ethical Consideration: Netiquette	Develop Netiquettes to guide the students and the lecturers on the proper use of the Internet in teaching and learning
	IPR	Develop policies that protect the Intellectual Property Rights and introduce them to the lecturers and students
	E-plagiarism	Develop policies that help in preventing plagiarism and introduce them to the lecturers and students
Lecturers (with support from the institution)	Blended Pedagogy: Course Redesign	Select the online learning activities that can present particular course contents in a better way and digitalize the contents, e.g. developing interactive e-activities Select the F2F activities that can present the contents for on-campus time effectively
Lecturers	Lecturers' and Students' Roles	Understand the shift to becoming a facilitator and encourage student engagement in learning with various teaching strategies. Recognize how lecturer's role influences student's role in blended learning
Institution & Lecturers	Course Evaluation	Evaluate the course based on the students' perceptions and outcomes
Institution	Evaluation and Development: Feedback	Receive feedback from lecturers, students and university staff involved in the program
Institution & Lecturers	Development	Plan and continuously develop the program based on the evaluation results

This blended learning framework is important as the focus in the literature is on theories for blended learning design. Certainly, this framework will need to be assessed by experts in blended learning and I intend to do it in a future research. As Whetten (1989) comments, "it is unfair to expect that theorists should be sensitive to all possible boundary constraints" (p. 492). Although this framework is specifically related to the implementation of blended learning in the universities of Saudi Arabia,

I am confident that the assumptions and recommendations contained herein will be of great value to similar contexts. It is hoped that this blended learning framework provides a broad insight on how blended learning can be implemented in Saudi Higher Education.

## Summary

Blended learning has a great potential for the development of Saudi Higher Education. However, careful consideration of the concept of blended learning and pedagogy strategies is essential for promised outcomes. It is noteworthy that there is a low level of knowledge about blended learning in Saudi Higher Education. One major challenge to be considered in Saudi universities is the adaptation of blended learning in a traditional didactic environment (Alebaikan & Troudi, 2008). This requires an adequate orientation. Although the infrastructure has been considered by the Saudi Higher Education, developing training programs for students and lecturers has to become a priority to address the lack of technical skills. Finally, this paper introduces a theoretical blended learning framework composed of five themes which provides the factors that influence the implementation of blended learning in Saudi universities.

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