

# The Future of Blended Learning

Reem A. Alebaikan

**Abstract**—The emergence of blended learning has been influenced by the rapid changes in Higher Education within the last few years. However, there is a lack of studies that look into the future of blended learning in the Saudi context. The most likely explanation is that blended learning is relatively new and, with respect to learning in general, under-researched. This study addresses this gap and explores the views of lecturers and students towards the future of blended learning in Saudi Arabia. This study was informed by the interpretive paradigm that appears to be most appropriate to understand and interpret the perceptions of students and instructors towards a new learning environment. While globally there has been considerable research on the perceptions of e-learning and blended learning with its different models, there is plenty of space for further research specifically in the Arab region, and in Saudi Arabia where blended learning is now being introduced.

**Keywords**—blended learning, higher education.

## I. INTRODUCTION

It is expected that there will be a dramatic rise in the use of blended learning approaches in the coming years [1]. Supporting this view, Graham states that “although it is impossible to see entirely what the future holds, we can be pretty certain that the trend towards blended learning systems will increase” [2]. The emergence of blended learning has been influenced by the rapid changes in Higher Education within the last few years. In Saudi Arabia, Higher Education has been under extensive development, including the establishment of new universities and support given for the integration of e-learning. Garrison and Vaughan indicate that the change in Higher Education has generally been caused by three catalysts [3]. The first is the unprecedented advances in communication technology. The second catalyst has come from within institutions where the focus on research and the growth in class sizes has resulted in a loss of teacher-student interaction. The third factor has been the recognition of the quality of learning experiences in Higher Education which cannot be addressed by traditional methods. This has led to the emergence of blended learning which “has spread quickly and with considerable resonance within higher education” [3]. The potential of the web in the near future is seen as a tool for virtual collaboration, critical thinking, and as an enhancement for learners’ engagement [1]. At the same time, blended learning has become a better alternative for fully online learning. Bonk et al. assert that blended learning is more than a fashionable approach; it is now a standard part of the education and training glossary.

The new generation growing up in the digital age may require a different way of learning. A study was conducted in Australia by Krause [4] to explore the emerging characteristics of current and prospective undergraduate students – their values, experiences and expectations. The author describes first time undergraduate students in 2005 as Generation Y, Net-genners, Millennials, Digital Natives, Echo Boomers, or simply Yers. The Y Generation is familiar with the computer from the time they were born. They are technoliterate, fast learners, and have discovery learning skills such as those necessary in computer games. Supporting this view, Prensky (2001, cited in [5]) states that most of the students are confident with the use of the computers and other technologies. They are digital natives. The Joint Information Systems Committee (JISC) reports that digital learners rarely describe e-learning as a separate or special activity and indicates that technology plays a big role in life and learning [6]. Krause [4] points out that the Y generation connects through email, mobile phones and online chat, along with face-to-face contact to build up connections. Nowadays, the majority of undergraduate students in Saudi Arabia are using email, mobile phones and Internet tools for connection. Consequently, their need for innovation in learning and teaching is high. However, JISC’s report also raises concerns about learners’ abilities to be entirely independent in the use of technologies.

It is expected that the type of technologies for learning and the way they will be used will change the future of education. Graham [2] states that “due to the constantly changing nature of technology, finding an appropriate balance between innovation and production will be a constant challenge for those designing blended learning systems” (p. 16). Nowadays, the common online tool used in blended learning is called Web 1.0 against to Web 2.0. In Web 1.0, information is delivered to users while in Web 2.0 information is created and edited by users. Web 1.0 is a read-only environment, while Web 2.0 is a read and write environment which facilitates social activities. Blogs, Wikis, Twitter, You Tube, Facebook, and Flickr are examples of the most common Web 2.0 tools. Globally, the number of users of Web 2.0 has increased dramatically. However, Web 2.0 tools such as wiki, which facilitates collaboration in learning, has not been utilized yet in blended learning in Saudi Arabia.

Using Web 1.0 technology results in e-learning 1.0 which “has been associated with a transmission or behaviorist style of learning in an environment that generally supports the notion of constructivist learning as the preferred approach” [7]. At the same time, e-learning 2.0 promotes collaboration in knowledge

Reem A. Alebaikan is with King Saud University, Riyadh, Saudi Arabia (phone: 9661-4356919; fax: 9661-4356919; e-mail: ebaikan@ksu.edu.sa).

construction. The rapid innovations in e-learning urges for research about the impact of these innovations on blended learning. Recently, research has started to explore the effectiveness of using Web 2.0 in blended learning. For example, Motteram and Sharma [8] explored, within a blended learning environment, the role that Web 2.0 can play in enhancing language learning development. They emphasize the creation of suitable activities that cope with the learners' need to facilitate the understanding of the language. They conclude that, "the use of technologies is also changing our understanding of the profession of language education".

With the continuous development of the use of web-based applications and 3D virtual worlds like Second Life, which can be called e-learning 3.0 (see Fig. 1), there are even more opportunities to create a better engagement blend. The future development of technology will change the delivery modes used, the cost effectiveness and the acceptance and recognition of the new educational environment.

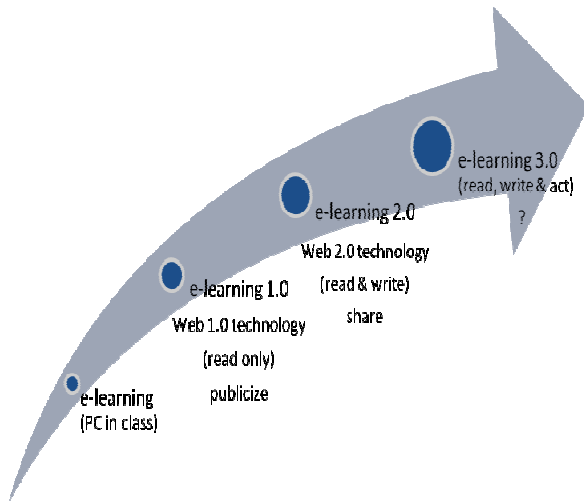


Fig. 1 The Development of E-learning

In conclusion, there is a lack of studies that look into the future of blended learning in the Saudi context. The most likely explanation is that blended learning is relatively new and, with respect to learning in general, under-researched. This study addresses this gap and explores the views of lecturers and students towards the future of blended learning in Saudi Arabia. While globally there has been considerable research on the perceptions of e-learning and blended learning with its different models, there is plenty of space for further research specifically in the Arab region, and in Saudi Arabia where blended learning is now being introduced.

## II. METHODOLOGY

This study was informed by the interpretive paradigm that appears to be most appropriate to understand and interpret the perceptions of students and instructors towards a new learning environment. According to [9], interpretive research "is trying

to come to an understanding of the world of the research participants and what that world means to them". There is a focus on understanding people "without artificially contriving situations for research purposes" [10].

This research project will be informed by a combination of a constructivist and a social constructionist theoretical framework. The constructivist element will allow us to look at the nature of social reality and learning from the individual's perspective. Meaning-making activity in this framework is explained in terms of what the individual mind does and the unique experience of each of us [11,12]. Constructivists view people "as constructive agents and view the phenomenon of interest (meaning or knowledge) as built instead of passively received by people whose ways of knowing, seeing understanding, and valuing influence what is known seen, understood and valued"[13]. Social constructionism on the other hand, is the view that learning and meaning making are a social endeavor. Culture plays a major role in shaping our social realities and learning experiences, and the collective generation and transmission of meaning is at the focus of the researcher within this framework. Social constructionists see human experience as culturally and historically mediated through social practices that are constantly changing [14]. Social constructionism theory is therefore adopted in this study due to the effect of the social and cultural context in constructing the instructor and student experiences.

Religion and culture in Saudi Arabia not only shape people's attitudes, practices, and behaviors, but also shape the construction of their reality about their lives. Similarly, the social environment, in the case of online learning being integrated with face-to-face learning, is also exerting some influence on students' perceptions. This makes social constructivism theory appropriate for understanding the perception of instructors and students on blended learning in Saudi society.

The main research questions underpinning this study were:

1. What are the students' perceptions of the future of blended learning in Saudi Arabia?
2. What are the instructors' perceptions of the future of blended learning in Saudi Arabia?

The blended learning model utilized in this study integrates online instruction, which constitutes 70%, with face-to-face instruction, which constitutes 30%.

### A. Participants

This study used a criteria-based or purposive sampling approach which is generally employed in qualitative research. Ritchie & Lewis remark that this approach is suitable for studies that involve sample units with particular features in order to enable detailed exploration of the central themes that will be studied [15].

They contend that it is essential to decide which criteria will be used for purposive selection of the sample: "The choice of purposive selection criteria is influenced by a review of the aims of the study"[15]. The criterion I used was being a participant in a blended course.

Due to gender-segregated culture in Saudi Arabia, and the challenge of accepting large number of female undergraduate students, the blended courses were only offered to female students. As a female researcher, having only female participants facilitated data collection. The participants were instructors and undergraduate students from the College of Applied Studies and Community Services. They were nine female undergraduate students and three female instructors of different courses. The three instructors, who participated in a focus group and in-depth interviews, taught the following blended courses: 101ENG, 101ARB and 101SLM, which are required for most of the University colleges. The participating students were sophomores enrolled in more than one of the blended courses. Some of the students had enrolled in blended courses in the previous semester and were enrolled in one or two blended courses during the semester of the study.

### *B. Methods and Data Analysis*

Qualitative methods were employed to collect rich descriptive data that contribute to the understanding of the phenomena that were studied. During Spring 2008, initial observations of online discussions, two students' focus groups and one instructors' focus group were made. The data was further investigated during nine in-depth interviews. In order to understand the research environment, two interviews with e-learning supervisors in the College were conducted. In-depth interviews were the main tool used in this study to provide an opportunity for detailed investigation of participants' personal perspectives. The focus groups and the interviews were recorded and then transcribed. Thematic analysis approach was used for analyzing the data. Each transcript was read several times to generate themes related to the research questions. Participants were informed about the purpose of the research and that confidentiality and anonymity of personal information were to be maintained. In addition, they were informed that they had the right to withdraw from the study at any time. In addition, consents were obtained from them to use the data for research purposes.

## III. RESULTS AND DISCUSSIONS

Understanding the perceptions of the future of blended learning in Saudi Arabia is essential in order to provide insights for decision makers. This study shows that the majority of undergraduate participating students (95.5%) are very keen to be enrolled in blended courses in the future. This finding is similar to the results reported by Aycok et al. [16], where the majority of the students of blended courses at the University of Wisconsin-Milwaukee indicated that they would recommend blended courses to others as a result of their positive experience. The use of technology in blended learning was perceived by the students as one of the modes for educational development. Educational development was frequently mentioned as an advantage of blended learning in reflective essays, interviews and focus groups. The students identified the environment of the blended courses as innovative and a development of this era. The following

excerpt from the reflective essay of Zainab shows her enthusiasm for future blended courses: "I prefer blended courses and I wish that all my courses were blended."

Similarly, Afnan wrote in her reflective essay: "I prefer e-learning [blended learning] because we have to follow the development... we are supposed to have our lectures in new ways such as distance learning, and from home." While Amal wrote: "I think that most people are keen to use technologies and educate themselves. E-learning [blended learning] is the way to develop our skills and education." In her interview, Dania agreed with this opinion: "The system [of blended learning] is very beautiful and innovative. It goes with the developments of this era." This shows that blended learning is perceived by the students to be a part of twenty-first century education. It is expected that as more of the digital generation are enrolled in universities, the enthusiasm for blended courses will be stronger in the future. The previous quotes also show that the students believe that learning has to be enhanced by the use of ICT. Supporting this finding, Al-Fahad's study [17], which was conducted on Saudi female undergraduate students, reported that the students were eager to use the resources of mobile learning- via laptop, mobile phone and PDA. He added that they believed that time and space flexibility would assist better student engagement in the learning process. In addition, the students highlighted the need for utilizing a blended format in institutes other than universities. As Fatmah said in her interview: "Development is e-learning [blended learning]. We hope that it is not only offered in universities but in all educational sectors." This view illustrates that the participants realized how blended learning could be a valuable approach in other educational areas. This could be technical institutions, which would benefit from using a blended learning strategy for training. Blended learning has been proved as a successful approach for training [18]. Furthermore, looking at females' education status in Saudi Arabia, a previous finding shows that blended learning would encourage Saudi females to continue their education. What could also encourage the use of blended learning in female education is the change in the economy and the need for extra family income. To illustrate, under Islamic Law males are responsible for providing for their families. However, with the increasing cost of living in Saudi Arabia, some women have realized it has become necessary for them to contribute to their family income. Thus, blended learning would encourage Saudi women to continue their education in order to seek future employment in a manner that meets the Saudi traditions and cultures. Similarly, the lecturers believed that the trend is moving towards blended learning. For example, Latifah emphasized the rationale for blended learning in Saudi Arabia and its influence on the future of blended learning. She said in an interview: "I think e-learning [blended learning] will be applied for other courses, as I understand from the college administration. The main goal was to offer space for new students. However, e-learning [blended learning] has helped the lecturers to develop their teaching strategies that were previously based on lecturing to include

online participation, and encourage research.” This quote shows that the need to offer more space for undergraduate students could result in an expansion of blended learning to address the growth in Higher Education. The other influence on the future of blended learning is the development in teaching strategies which enhance the learning process. The lecturers’ views are also affected by the rapid movement to adopt e-learning in Saudi Higher Education, whether as a supplement to traditional learning or as a transforming blend which is the case of this study. Since the study there have been a number of projects to assist the expansion and structures that foster e-learning. For example, several training programs and workshops have been offered by the National E-learning Centre to university lecturers. The workshops have included Introduction to E-learning, Developing Online Quizzes and Courseware Design. Moreover, in 2009 the First International Conference on E-learning and Distance Learning was organized by the National Centre for E-Learning and held in Riyadh under the vision ‘Learning Industry for the Future’. The Conference was one of the indicators for the general trend towards e-learning in Saudi Higher Education. In addition, an Award for E-learning Excellence was launched by the Minister of Higher Education and the National Centre for E-learning and Distance Learning at the International Conference for E-learning under the title: “In order to deepen the concepts of creativity and innovation” to encourage the educational institutions in the universities to develop e-learning and to value the distinguished people in this area. Furthermore, Saudi universities have given serious consideration to the development of lecturers’ skills. For example, King Saud University has recently established a Deanship of Skills Development. One of the goals of this deanship is to implement the necessary development programs to improve the lecturers’ skills in the latest technology and instructional techniques. Certainly, improving lecturers’ skills will help facilitate the future implementation of blended learning. The participating lecturers had a positive perception of the flexibility and the potential for creativity within a blended learning environment. This opinion reflects Albalawi’s conclusion [19] that the surveyed Saudi lecturers had held positive attitudes toward web-based instruction and believed that online courses are the future of Higher Education in Saudi Arabia. However, the lecturers of this present study highlighted some challenges that could delay the expansion of blended learning. For example, they commented on the infrastructure and the need for sufficient Internet labs in all campuses to offer students a better experience. Furthermore, a program level implementation in which a degree can be obtained through an entirely blended learning program was also suggested by Deemah: “Probably when the [blended] program is implemented all over the university [this] will be better... Of course, the lecturers of each subject should decide on the percentage of online (off-campus) instruction.” This quote shows that the lecturer expects more blended learning implementation in the future, which confirms Bonk et al.’s

statement [1] that blended learning is a permanent trend. They state that, “Blended learning is a permanent trend rather than a passing fad in both higher education and workplace learning settings. Given this significant adoption of blended learning in both higher education and corporate training settings, it is vital to create strategic plans and directions for it” [1]. In addition, the previous lecturer’s quote indicates that future blended courses are likely to offer lecturers the flexibility in selecting a proper design for each subject. With this finding, awareness should be given to the decisions made in the design process, which are critical to the effect the course will have on the students with such a wide variety of delivery mediums. Careful blended courses design enhances the transmission to blended learning and reinforces the recommendations of Stacey and Gerbic [20], Sharpe et al. [21] and Littlejohn and Pegler [22]. Another aspect that could affect the future of blended learning is a lecturer’s qualification for using innovative strategies as well as technologies in teaching. In the future, new lecturers are expected to be more familiar with the use of technologies that are a major element of everyday life. As explained previously, all of the participating lecturers are Bachelor degree holders from Saudi universities. Recently, Saudi Higher Education has adopted a strategy of only employing university lecturers who have post-graduate degrees from abroad. The goal of this strategy is to learn new methodologies of teaching and apply them at home [23]. Currently, there are more than eighty thousand students on Higher Education scholarships studying in the USA, UK, Japan, Malaysia, Australia and Canada. Furthermore, lecturer Nouf indicated that blended learning would be more successful for graduate studies: “Moreover, as a graduate student, I believe that blended learning would be effective for us. I think reducing the in-class time would offer us as graduate students and lecturers more time to perform our research. Blended learning requires autonomy and research skills, which are most graduate students have.” This quote mentions two features of graduate students that demonstrate the suitability of blended learning for them. Good study skills including self-discipline and independence are required skills for blended courses learners and graduate students usually have these skills. In addition, the time flexibility of blended learning was considered as a very useful advantage for graduate studies as this involves extensive research. It is significant that the Ministry of Higher Education has not yet provided distance learning degrees in post-graduate studies. In addition, Saudis who aim to be employed in a government position avoid being enrolled in a distance learning degree from abroad, because degrees through distance programs are not accredited by the Ministry of Higher Education. Therefore, this suggestion of employing blended learning for graduate studies seems to be a solution for Saudi employees who are not able to study as a full time student. It is hoped that implementing blended learning programs for graduate studies in Saudi Arabia would enable employees to develop their education without losing their jobs.

## IV. CONCLUSIONS

This study asserts that blended learning has the potential to offer an excellent learning experience in Saudi Arabia. The majority of the lecturers and students of this study expressed positive attitudes towards their blended learning experience. The study shows the readiness of the Net Generation students for this new trend in Saudi Arabia. The participants' experience in blended learning shows that the characteristics and structure of this new learning environment are compatible with the uniqueness of the Saudi culture, especially in issues related to women's education. The question here is whether decision makers would consider the consequences of blended learning on the teaching and learning experiences, as well as the culture in Saudi Arabia. From the perspective of the female Saudi students, a blended learning environment offers them the flexibility to continue their Higher Education while maintaining their own cultural values and traditions. Therefore, blended learning is clearly a feasible solution for women in Saudi Arabia. It is anticipated that the future of blended learning will have a strong impact on the learning environment in Higher Education. However, it cannot be predicted how fast the adoption of using technologies in learning will influence the expansion of blended learning in Saudi Arabia. Moreover, it cannot be anticipated whether the movement towards blended learning in Higher Education will extend to pre-university education in Saudi Arabia or not. If this happens, this will raise serious arguments with educationalists that strongly support the "socio-cultural reproduction built into the institutional structures of schools"[24]. The issue here is the nature of the rationale for implementing blended learning in primary and secondary schools. The quality of the learning experience in the blended learning environment is expected to be a concern of parents. Another argument could be about the readiness of primary and secondary school students for blended learning. As independent learning skills are required for blended learning, the question is whether the students in pre-university education have the maturity to be learners in a blended learning environment. Certainly, face-to-face learning provides a rich environment for guidance, socialising and interaction, which young learners require in order to be motivated. However, the blended learning can be a model that is a compromise between homeschooling and a school education.

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