Blended Learning Environments for Adults: Evaluations and Frameworks

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Chapter 2
The Definition of Blended Learning in Higher Education

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ABSTRACT
Through the beginning of the millennium, the education environments have witnessed the introduction of information technologies and new pedagogies. Especially, the extensive use of Internet technologies as well as the networked learning made it possible to design and utilize new generation learning environments that are realistic, authentic, and engaging. By means of educational developments, alternative content delivery techniques or technologies have been implemented into the teaching environments throughout the years. In an effort to capitalize on the advantages of instructional delivery modalities and minimize the disadvantages, scholars started to combine the most functional elements of the instruction in these learning environments and that is universally called as ‘Blended Learning’. Although the blended learning as an instruction model has an increasing interest in the field of higher education, it is still in its infancy. The definitions of blended learning in the literature needs to be clarified or collocated for the readers, who would like to deal with blended learning in any level of instruction. Therefore, this chapter reviews the recent literature on blended and online learning and juxtaposes the definitions of the blended learning as well as the types of blended learning instruction that took place in the higher education environments.

INTRODUCTION
It is likely that the education process in today’s world is different from those processes that shaped higher education in the last decades of the 20th century. Along with the developments in information technologies as well as the teaching methodologies, the processes of teaching and learning are challenging the temporal and spatial boundaries of the classrooms. In other words, advancements in technology and developments in teaching and learning procedures have presented new circumstances for more efficient and effective implementation of learning environments, which “make it simple for students and teachers to communicate in non-traditional methods” (Hick-
The Definition of Blended Learning in Higher Education

man, 2007) and which "are characterized by the introduction of flexible and innovative teaching and learning technology into teaching (Vogel & Klassen, 2001, p. 105).

Through the last two decades, the higher education environments have witnessed the confluence of information technologies and new pedagogies. For instance, the widespread use of Internet technologies as well as the networked learning made it possible to design and utilize new generation learning environments that are realistic, authentic, and engaging. As Osguthorpe and Graham (2003) stated the availability of the Internet expanded the educational options available to learners and instructors.

Prior to the confluence of the technology, especially Internet, into the classrooms of the higher education institutions, the teaching and learning procedures were mostly based on face-to-face instruction, which typically occurred in a teacher-directed environment with person-to-person interaction. Such kind of learning processes frequently takes the form of front-of-class teaching, which was assumed as "an apprenticeship model of learning" (Schulz, 2005, p. 147). There is usually a teacher, as 'sage person', transfers core information to the students face to face and the learners actively or inactive try to grasp the information that teacher provides to them. As Dabbagh and Bannan-Ritland (2005) acknowledged, face-to-face learning environment is largely instructor oriented or program controlled, and generally, the learner is a passive recipient of information. The effectiveness of face-to-face learning as a platform for teaching and learning is a subject of much debate and various novel attempts have been made to incorporate different methods into the traditional teaching environments (Sayers, Nicell, & Hagan, 2004).

Face-to-face teaching and learning environments are synchronous in nature, while no communications technologies are required for a face-to-face session, often, other technologies, such as televisions, video/CD players and overhead projectors, or sometimes computers are used. Verhaart and Kinshuk (2004, p. 1) acknowledged the developmental process of the implementation of an alternative delivery techniques and technology into the face-to-face learning environments as follows: "The continuum began with the manual methods of working with a blackboard (chalk), through early duplication, then to whiteboards and overhead transparencies. This was followed by the desktop publishing era and included photocopiery and Word Processors (WordStar, Word Perfect, Word), and finally to electronic delivery in the last 5 years. These have included PowerPoint, Windows Help Files and finally to Web based technologies, static HTML and now interactive Web pages using ASP". Moreover, Verhaart and Kinshuk (2004) summarized the fundamental characteristics of face-to-face learning environments as discussions are kept in context, instructors guide the learning, discourse occurs in context and instructors can demonstrate products. As Resta (2004) affirmed, though the face-to-face learning environments are often complex and unpredictable, we are very familiar with them and have developed high levels of skill in working in these environments.

Through the development of instructional pedagogies, the atmosphere of the face-to-face learning environments has been also subjected to change. By means of educational developments, alternative face-to-face content delivery techniques or technologies have been implemented into the teaching environments throughout the years. What is more, the advancement in technology has started a new era in traditional education and such initiatives contributed to the expansion of the educational opportunities by reaching people in various geographical locations thereby allowing learners global access to education (Heinich, Molenda, Russell, & Smaldino, 2002). Removing the restrictions of geography and time in educating the people was partially achieved by distant learning procedures which roots back to correspondence courses that were in scene as early as 1720 (Ruitenbach, 2007). The distant
learning can be defined as any formal educational process that occurs with the instructor and student separated by either time or distance. There are various definitions of distant education in the literature, however; their joint aspect is its flexibility in time and place.

Within the course of time, distant learning witnessed great advancements in parallel with technological developments and by the arrival of Internet networks and computer-based multimedia, a new generation of distance education (Holmberg, 1995) was introduced in early 90s, and it is still in progress (Taylor, 2001). That is, after the year 2000, the wide spread use of Internet and the online teaching and learning procedures were introduced as an alternative to the face-to-face and distant education.

At the early stages of new initiatives in the field of instruction in higher education, the face-to-face and online learning environments remained largely separate because they used different media or method of combinations and addressed the different needs of audiences. For example, on-ground teaching and learning typically occurred in a teacher-directed environment with person-to-person interaction in a live synchronous environment. On the other hand, the distant or online learning systems that particularly used in higher education environments highlight self-paced learning and asynchronous interactions in text only environment. Therefore, the earlier models of online learning environments put emphasis on the learner-material interactions in the text-only environments, while face to face learning environments had a tendency to give priority on the human-human interaction. Following the early stages of employing technology in the education period, the online learning phenomenon became an alternative way of providing higher education for students who were unable to get into the on-ground teaching environments by offering them “the full advantage of anytime, anywhere learning” (Young, 2004, p. 133).

The rapid appearance of technological innovations in the last half century has an enormous impact on the possibilities for the learning environments, especially, for the distant learning environments, which commonly served for higher education students. In fact, online learning environments are increasingly engaging instructional field that was once only possible in face-to-face environments. For example, communication technologies now allow us to have synchronous online interactions that occur in real-time almost the same levels of accuracy as in the face-to-face environment.

The studies dealing with the combination of technology and instruction revealed that implementing technology in the courses, especially making use of computer or Internet mediated platforms enhances the quality of instructions and enriches critical thinking skills of the learners. The review of the recent literature on comparative studies which have examined the effectiveness of online and on-ground face to face teaching and learning environments have exposed that there is no significant difference between online and on-ground instruction (Barry & Runyan, 1995; Schulman & Sims, 1999; Gagne & Shepherd, 2001; Hiltz, Zhang, & Turoff, 2002; Russell, 2001, 2010). In his book, entitled “The no significant difference phenomenon: A comparative research annotated bibliography on technology for distance education” Russell (2001) summarized 355 different research studies that support the conclusion that ‘no significant difference’ exists between the effectiveness of face-to-face classroom instruction and online instruction. Most of the studies in his work suggest that the learning outcomes of students using technology at a distance are similar to the learning outcomes of students who participate in on-ground classroom instruction. The compiler reported in the introduction that few studies, if any, were located in which the employment of technology for purposes of providing instruction or teaching found statistically significantly superior in terms of learning to other modes of
The Definition of Blended Learning in Higher Education

instruction. Additionally, other forms or modes of instruction were not statistically superior to the employment of technology, especially distance learning, in terms of learners’ success.

Similarly, this claim was also supported by a meta-analysis performed by Sitzmann, Kraiger, Stewart, and Wisher (2006). In their meta-analysis, Sitzmann et al. (2006) found that in some cases, students in distance learning environments surpassed the achievement of students in traditional learning environments. However, when the same instructional techniques were used in both settings, there was no significant difference. Likewise, Zhao, Lei, Yan, Tan, and Lai (2005) also noted a similar finding, in a similar meta-analytic study related to the effectiveness of distance education. They noted that in military and mathematics instruction, students performed slightly better in a distance learning class, while in social science and science areas there was no significant difference. Consequently, it can be claimed that when similar learning theories considered as basis, the face-to-face learning found to have no superiority over online or distant learning. However, a very recent study (Means, Toyama, Murphy, Bakia, & Jones, 2009), which was supported by U.S. Education Department confirmed that “instruction combining online and face-to-face elements had a larger advantage relative to purely face-to-face instruction than did purely online instruction” (p. 15).

Besides its valuable contribution to the world of education, the online learning environments have some drawbacks in various dimensions. First of all, such learning environments ignore the motivation of students, because online learning programs generally do not take into account the human interaction that are usually seen in a face to face learning environment. When interaction does occur, it tends to be less spontaneous than face-to-face communication. Isolation from others during the learning process such as lack of face-to-face communication with teachers in the online learning environments can also reduce motivation in online learning environments and grounds a lack of understanding between a student and a teacher (Molinari, 2003; Osguthorpe & Graham, 2003). As Kirby (1999) argued, the lack of face-to-face physical interaction is one of the major limitations of distance or online education. Moreover, the nature of the early online learning environments generally allowed an interaction between learners and computers and required students to go through the issues at their own pace. Although it is reasonable to expect that students in the higher education should take personal responsibility for their own learning, the reality is that they often need guidance; otherwise, they will not become engaged with learning (Hajisadr, 2005). The need for a virtual classroom setting where learners could perform their in-field skills and where they could get human interaction become inevitable aspects of such technology based learning environments.

As Kern and Warschauer (2000, p. 11) indicated “a shift in dynamic away from learners interacting with computers to interacting with other humans via the computers” started to be very important aspect of such educational settings recently. This shift in educational practice has occurred because of the interactive nature of some of these new technologies. Rather than simply making technology available to students, new learning and teaching is characterized by the introduction of flexible and innovative teaching/learning technology into teaching.

When the publications on online and distant learning that published either in academic journals or in the proceedings of specialized conferences as well as thesis and other research papers that focused on the areas other than face to face learning environments are reviewed, it is clearly deduced that the learners’ primary reasons of selecting the online instruction depends on the issues of convenience and access, yet such instruction requires the learners to go through self paced learning approaches. It is believed that such learning environments have a limited capability to engage learners in learning events unless the learners are self-motivated and active.
learners (Daniels & Moore, 2000). As Collis (2003), underlined, online learning components often require a large amount of self-discipline on the part of the learners. For instance, Huang and Zhou (2003) mentioned that most of the [Chinese] students in their study faced a challenge in regulating their own learning without close guidance of their instructor. Of course, teachers should guide their students, but when a student can accomplish a task on his or her own, the student encounters a learning experience that is more meaningful. Lim, Morris, and Kupritz (2006, 2007) stated that a lack of community or belonging, preventing the development of shared emotions and feelings between instructors and learners, are often reported in online learning experiences and are some of the most important factors influencing learning satisfaction and transfer effectiveness.

The incompatibility of online learning environments in terms of providing a human to human interaction as well as diminishing the isolation from other learners forces distant learning scholars to find out a solution for the instruction delivery modalities that they offer to their students. It is clear that some practical features of face-to-face instruction need to be put into practice in distant learning environments as well. The need for collaboration between the face-to-face and online learning leads the educators towards a new approach to teaching and learning which is "called as hybrid or blended learning" (Rogers, 2001, p.11). This new approach principally provides a blend of both face-to-face and online or distant learning and teaching experiences. Whether the primary interest is creating more effective learning experiences or increasing access and flexibility, it is likely that the forthcoming learning systems will provide a blend of both face-to-face and online teaching experiences. Therefore, there is growing trend in academic and business circles to combine face-to-face education with Web-based education (Askun, 2007).

The recent publications on online learning environments clearly support that most of the above-mentioned obstacles of online and on-ground learning environments are vanished through blending the best sides of the learning environments. With reference to the attempts for combining the best sides of the instructional environments, 'blended learning' has become a kind of motto in most educational settings, yet there is still a sort of ambiguity about what is meant when the term is used.

Although the research in the field of blended learning as an instruction model has an increasing interest, especially in the field of higher education, the concept of blended learning is still in its early phases of its development and there are few research projects providing insights into how exactly it should be implemented into the higher education curriculum. The review of articles and research papers that were published in academic journals or presented in the academic conferences that were related to blended learning revealed that while much of the literature on blended learning addresses the effectiveness and mechanics of the different delivery methods, a few writers have conducted studies dealing with solely blended learning as a medium of instruction (Osguthorpe & Graham, 2003; Waddoups, Hatch, & Butterworth, 2003).

THE DEFINITIONS OF BLENDED LEARNING

Today, the academics appreciate that both face-to-face and online learning environments have a variety of pros and cons. In an effort to capitalize on the advantages of both instructional modalities and minimize the disadvantages, academicians have begun to blend elements of these two separate learning environments. Such form of educational delivery is universally called as 'Blended Learning' and can include many different ways of combining pedagogical approaches in order to produce optimal learning outcomes (Driscoll, 2002; Boyle, et al., 2003; Dziuban, Hartman, & Moskal, 2004).
While I was reviewing the publications on the blended learning, I have noticed that there was an ambiguity in the definitions of the blended learning in the field of higher education. As Mortera-Gutierrez (2006) stated, the different definitions of blended learning make us reflect on the complexity and richness of this type of learning and educational process. It is obvious that blended learning is an almost new concept in the world of higher education although the blends of instructional methodologies have been used in this field for a long time. For instance, in his article titled “Blended learning: driving forward without definition,” Laster (2004, p. 154) stated that “at one extreme; one could argue that blended learning can be any kind of learning.” Given that, it was basically defined as the blend or mixture of any two instructional technologies. What is more, in its very simple definition blended learning was considered as blending of formal training with informal learning (Baldwin-Evans, 2006). That is, according to Baldwin-Evans (2006) blended learning can be as simple as combining two different learning methods such as watching a documentary film (informal learning) after attending a history class (formal learning). Therefore, as Clark (2003) claimed some skeptics see blended learning as an old idea dressed up in new clothes, something everybody has been doing all along. Nevertheless, it is very clear that blended learning has been driven by a series of technical and technological innovations in the field of teaching and learning for many years.

In the early studies on blended learning and blended learning environments, it was observed that the term blended learning was used interchangeably with the term hybrid learning which, refers to learning concepts that mix face-to-face instruction with computer or e-learning based instruction (Young, 2002). For instance, Russell et al. (2002) defines hybrid learning as an educational delivery model that brings together face-to-face classroom instruction and computer-based learning in order to improve the educational outcomes. Likewise, Bonk and Graham (2006) used a very similar terminology while defining blended learning, and they stated that blended learning combines classroom-based learning with computer-mediated instruction. The definitions used in the literature shows that, the term hybrid learning has largely replaced by the term blended learning within the course of time since the dictionary meaning of the word 'to blend' suggests a more sound harmony of different learning methodologies and technologies in the learning environments (Osughterpe & Graham, 2003). As Bersin (2004) states, the term ‘blended learning’ was used to specify a more balanced approach to using a combination of different media and methodologies to accomplish the success through instruction.

The concept of blended learning in the field of higher education has been introduced as an opportunity to improve the teaching and learning process by harmonizing the advantages and disadvantages of on-ground and online learning settings. According to Lanham, Augar, and Zhou (2005) blended learning combines both traditional face-to-face learning with online learning as well as it connects asynchronous and synchronous online learning technologies. Similarly, Chew, Norah, and Turner (2008) pointed out that the definition of the blended learning might be depend on the varying needs and requirements of individuals or organizations, since there are too many ways and models of blends that depend on the purposes of the developers and the context. Likewise, in another study related to the blended learning, Watson (2008) stated that iNACOL, (the International Association for K-12 Online Learning) defines blended learning as combining online delivery of educational content with the best features of classroom interaction and live instruction to personalize learning, allow thoughtful reflection, and differentiate instruction from student-to-student across a diverse group of learners.

The brief review of the definitions revealed that there are a plenty of definitions used to de-
scribe the blended learning. However, it was also observed that though there are a wide variety of definitions of blended learning, most of the definitions in the blended learning literature are just variations of a few common themes. According to Driscoll (2002), the four major concepts that blended learning was referred to in the literature were as follows:

- To combine or mix modes of Web-based technology (e.g., live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text) to accomplish an educational goal.
- To combine various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology.
- To combine any form of instructional technology (e.g., videotape, CD-ROM, Web-based training, film) with face-to-face instructor-led training.
- To mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working (p. 54).

The first two concepts that referred to the blended learning are the ones which also forced Laster (2004) to affirm that “blended learning can be any kind of learning” (p. 154), because they are very general descriptions that might cover almost all learning systems. For instance, if we take these two definitions into consideration, a university instructor’s use of characteristics of behaviorist learning and constructivist teaching together within a lesson, or, if a teacher uses the technology while s/he is teaching any subject and asks his/her students to send their homework through e-mail, the instruction can be considered as blended learning.

The blended learning in the literature was also defined as combining Web-based technology with classroom instruction to accomplish an educational goal. However, it is obvious that it could be very hard to find any learning system that does not involve different instructional methods, instructional technology and delivery media. Thus, defining blended learning in either of these two ways really does not get at the core of what blended learning is and why the concept of blended learning is inspiring for so many people in the higher education.

In Reay’s (2001) and Rothery’s (2004) definitions, the blended learning was defined as a blend of online and face-to-face instruction. Their definition seems to reflect more accurately the idea that blended learning is the combination of instruction from two separate modes of teaching and learning, which are face-to-face learning systems and online learning systems. It also underlines the central role of Internet-based technologies in blended learning. Similarly, the definition of Osguthorpe and Graham (2003) highlights the combinations of face-to-face instruction with distant learning systems, particularly combining on-ground teaching environments with Internet technologies, as blended learning. They declared that, “Blended learning combines face-to-face with distance delivery systems. [T]he Internet is involved, but it is more than showing a page from a Website on the classroom screen. [I]t all comes back to teaching methodologies—pedagogies that change according to the unique needs of learners. Those who use blended learning environments are trying to maximize the benefits of both face-to-face and online methods—using the Web for what it does best, and using class time for what it does best” (Osguthorpe & Graham, 2003, p. 227).

Likewise, Allen and Seaman’s (2003) and Allen, Seaman, and Garrett’s (2007) studies illustrated a prototypical course classifications and the proportions of online parts of the different learning and teaching environments. In their classification, they defined blended learning with reference to the proportion of the online parts in the content and claimed that substantial proportion
The Definition of Blended Learning in Higher Education

Table 1. Classifications of blended learning

<table>
<thead>
<tr>
<th>Proportion of Content Delivered Online</th>
<th>Type of Course</th>
<th>Typical Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>Traditional</td>
<td>Course with no online technology used—content is delivered in writing or orally.</td>
</tr>
<tr>
<td>1 to 29%</td>
<td>Web Facilitated</td>
<td>Course, which uses Web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or Web pages to post the syllabus and assignments, for example.</td>
</tr>
<tr>
<td>30 to 79%</td>
<td>Blended</td>
<td>Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has some face-to-face meetings.</td>
</tr>
<tr>
<td>80+ %</td>
<td>Online</td>
<td>A course where most or all of the content is delivered online. Typically have no face-to-face meetings.</td>
</tr>
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</table>

(30 to 79%) of the content is delivered online and blended courses typically uses online discussions in addition to some face-to-face meetings. Table 1 will surely contribute to the in-depth understanding of the definition of blended learning as well as the other type of instructional environments that integrates the technology into its curriculum.

To sum up, there is a wide range of definitions of blended learning in the related publications, which needs to be clarified or collocated for the readers, who would like to deal with blended learning in higher education or in any level of instruction. With reference to the definitions in the literature, the concept of blended learning for the present chapter is a blend of the definitions in the literature, which primarily based on Driscoll’s (2002) concepts referring to the blended learning, the definitions of Oguthorpe and Graham (2003), Reay (2001), Rothery (2004) and tabularized classification of Allen, Seaman, and Garrett (2007). That is, the blended learning in the higher education is the blend of face-to-face instruction with distributed learning facilities that highlight the use of Internet-based instruction, which is characterized by a reduction in the number of face-to-face meetings, and facilitates the use of e-learning instruments such as synchronous and asynchronous discussion forums or interactive Web pages in the delivery of instruction.

TYPES OF BLENDED LEARNING

Another concern in the field of blended learning is the definition of the types of blended learning. As there is a wide variation in the definition of blended learning, there are also variations among the blended learning practices that are taking place in the higher education environments. Kudrik, Lahn, and Morch (2009) categorize the types of blended learning practices under two main categories, which are concept based blended learning and collaboration-oriented blended learning. According to Kudrik, Lahn, and Morch (2009), in concept based blended learning “the online part is concept training and meant for individual use (e.g., self-paced e-learning), and the face to face part is collaborative learning (e.g., scenario simulation, work groups, small seminars)”, whereas, in collaboration-oriented blended learning “the online part is computer-supported collaborative learning (e.g., virtual communities), and the face to face part is individual oriented (e.g., conventional classroom instruction, PowerPoint presentation, mentoring)”. Similarly, Rosset and Frazee (2006) stated that the types of blended learning could be classified according to how, what (the content), and where (a face-to-face classroom or online) the activities are organized (Rosset & Frazee, 2006).

According to Graham (2006), all the blended learning examples occur at one of the following
The Definition of Blended Learning in Higher Education

four different levels, which are Activity level, Course level, Program level and Institutional level. Graham’s (2006) categorization of blended learning examples can also be labeled as the types of blended learning, therefore, a closer look at Graham’s blended learning example categorization surely contribute to our understanding of the types of blended learning. In all four levels, the nature of the combinations can be determined either by the learner or by the instructor. At the institutional and program levels, blending is generally left to the decision of the learner, whereas at the course and activity levels, instructors are more likely to take a role in laying down the blended learning.

Blended learning at the activity level takes place when an activity in the classroom contains both face-to-face and online or computer mediated elements. For instance, there are some military training facilities (Bonk & Wiser, 2000), such as training the air force pilots and astronauts, which incorporate both face-to-face and virtual elements. In terms of higher education, the use of technological tools while maintaining an activity in the class make the activity more authentic, especially; when technology is used to bring experts at a distance into the classroom through creating a simultaneous face-to-face and online activity. The examples of activity level blends might include using online discussion forums, e-mails or other Web-based communication tools such as video-conferencing while performing an activity in face-to-face teaching session.

A blended instruction at the course level, which is the most extensive type of blended learning, engages face-to-face and online activities that are used as part of a course. Some blended learning approaches engage learners in different circumstances but supporting face-to-face and online activities that overlap in time while other approaches separate the time block so that they are chronologically put together and not overlapping (Graham, 2006).

At the program level of blended learning, there are certain face-to-face courses that are required for a program and the rest can be taken at a distance or online. The program level blended learning in higher education usually maintained at the degree program levels. Generally, the higher education institutions, which offer program level blended learning, provide both face-to-face and online courses within the same program and the learners choose a mix of the courses that offered through different delivery modalities. However, some certificate programs that were offered by the commercial or higher education institutes might present a combination of face-to-face and online courses, which require the participation of the students to the program at different time and place settings. Such kind of blends is also considered as the program level blended learning since the mix is prescribed by the program. One of the significant examples of program level blended learning in the Turkish context is DELTT (Distant English Language Teacher Training). In this program, which aims to train students as English language teachers, students are offered two-year face-to-face instruction and the first two years are followed through online supported distant education program. The DELTT is the first blended program in Turkey with its face-to-face component in the first two years and the distance component in the 3rd and 4th years (Durmuşoğlu-Köse, Özkul, & Özyar, 2002).

The institutional level of blended learning is very similar to the program level blended learning; however, in such cases the institutions made an organizational obligation to combine the face to face instruction and computer mediated online instruction. As Graham (2006) states many corporate institutions as well as institutions of higher education are creating models for blended learning at an institutional level. For instance, the instruction model that is offered by University of Phoenix can be regarded as an institutional model for blended learning. In this blended learning model, the students have face-to-face classes at the beginning and at end of the academic term and they have various online activities in between.
the beginning and the end of the term. Similarly, the University of Central Florida’s ‘M course’ designation for blended learning courses can also be regarded as institutional level of blended learning since the students have some decrease in face-to-face seat-time. In the same way, at the University of Illinois, traditional on-campus economics students have been allowed to take a required course online while they were off-campus for the summer (Bonk & Graham, 2006). These are some of the institutional models of blended learning in higher education settings.

ADVANTAGES OF BLENDED LEARNING

There are countless reasons why an instructor, teacher, or learner might accept and choose blended learning over other learning options. One of them is that blended learning approach that combines traditional classroom based education with the convenience and cost efficiency of e-learning is an alternative to isolated e-learning (Davies, 2006). Similarly, blended learning allows instructors more approaches and choices when designing instruction. Rather than limiting student teacher and student-student interactions in the face-to-face classroom, blended learning allows such interactions in an online environment at various times (Singh, 2003).

Another most widespread reason for blending the instruction delivery modalities is that it provides effective pedagogical practices. Some have seen blended learning approaches increase the level of active learning strategies, peer-to-peer learning strategies, and learner centered strategies used (Graham, Allen, & Ure, 2003). In such models, learners go through three phases; the first phase provides a self-paced learning to acquire background information; the second phase offers face to face learning focused on active learning and application experiences instead of lecture; and the final phase endows with online learning and support for transferring the learning to the workplace environment (Driscoll, 2002).

Learner flexibility and ease in accessing the learning in the blended learning environments has also increasing weight as more learners with external obligations, especially the adult learners, ask for further education. Many learners prefer the usefulness offered by an online environment; nevertheless, they do not want to give up the social interaction and human contact that they are accustomed to in a face-to-face classroom (Graham, 2006; Rooney, 2003; Zenger & Uehlein, 2001).

Several studies publicized that the lecturers, administrators and students who use the blended learning in higher education context have varying positive standpoints for their blended learning experiences. For instance, students are generally very positive about their blended learning experiences, since such a learning experience provided them with time flexibility owing to the decrease in the face-to-face seat time in the classroom. This flexibility also provides the convenience of scheduling their courses and other issues. In terms of the perspectives of the academics, the use of blended learning in higher education context pleased them as instructors, since they could establish an enhanced interaction with their students through the online component of the blended learning. As for the administrative perspective, besides gaining reputation for employing the recent instruction delivery models in their institutions, reducing operating cost of the courses in the long-term due to the decrease in the seat times in the classrooms is the outstanding reason why administrators prefer to use blended learning in their institutions.

The findings of the studies that compare the effectiveness of the learning environments revealed that, in most cases, blended learning has advantages over a purely distance learning course, as it also allows face-to-face time with the instructor and/or with other students. In addition, blended learning environments provide students the option to select the type of learning environ-
The Definition of Blended Learning in Higher Education

Blended learning combines the best of both worlds. It is universally believed that blended learning allows students to experience and take advantage of the best educational elements that both the face-to-face classroom environment and the online learning environment have to offer.

Besides the inspirational advantages of using blended learning in higher education environments, there are some unfavorable aspects of it. For instance, the students’ misconception that the fewer face-to-face meeting means the less work and less responsibility for learning was stated as one of the outstanding challenge of blended learning for the students in the higher education (Vaughan, 2007). Similarly, the workload that the instructors faced during the preparation process is a discouraging factor. Since the design and development of online component as well as the planning of the face-to-face component of the blended learning is highly time consuming for instructors. Therefore, the construction of blended learning environment requires enthusiastic instructors who are keen on computer skills as well as be familiar with the possible challenges of blended instruction. Administration and running the blended learning instruction in higher education settings is a longitudinal process which yields its products soon after forming the program, thus, once the frame of the blended course or program was settled, the other issues such as running the course becomes easier. As Yoon and Lim (2007) acknowledged, blended learning should be considered as a long-term project and the designers of blended learning should take the long-term performance goals of the course or the program as well as possible institutional imperatives into account.

CONCLUSION

It is clear that, the blended learning might include a wide variety of approaches in instruction in the higher education. It may be as simple as making online resources and materials available to students outside of class, or using online technology as a forum for and means of interaction and communication outside of a face-to-face classroom. Likewise, blended learning may include synchronous or asynchronous online instruction and a wide variety of sophisticated technologies and rich online learning tools. In many cases, blending of instructional modalities includes a combination of both face-to-face and online instruction within a particular course. What is more, as Twigg (2003) claimed blended learning model replaces, rather than supplements, some face-to-face classroom time with online, interactive learning activities.

The review of a large spectrum of articles and papers focused on the blended learning and blended learning environments revealed that there are various definitions of the blended learning with reference to the context and the developer of the blended learning instructions. As Sharma (2010) indicated, the variety of the definitions of blended learning originates from the overall focus of blended learning, which search for the best and most effective practice in the delivery of instruction. However, with an attempt to clarify the ambiguity of the definitions as well as providing a concrete definition through juxtaposing the current definitions in the literature, the present chapter attempted to provide a description of the concept in the field of adult and higher education. Thus, in the lights of previous definitions of blended learning, this chapter defines it as the blend of face-to-face instruction with distributed learning facilities that highlight the use of Internet-based instruction, which is characterized by a reduction in the number of face-to-face meetings, and facilitates the use of e-learning instruments such as synchronous and asynchronous discussion forums or interactive Web pages in the delivery of instruction in higher education.
REFERENCES


The Definition of Blended Learning in Higher Education


**KEY TERMS AND DEFINITIONS**

**Asynchronous Instruction**: Online facilitated instruction that is not limited by location or time

**Blended Learning**: Blend of face-to-face instruction with distributed learning environments that highlight the use of Internet-based technologies, which is characterized by a reduction in the number of face-to-face sessions, and facilitates the use of online tools such as discussion forums or interactive Web pages in the instruction

**Face-to-Face Instruction**: Formal on-ground teaching and learning process in which the learners
and instructors meet together in the same place and at the same time

**Hybrid Learning**: Learning concepts that mix face-to-face instruction with e-learning elements

**Networked Learning**: Formal or informal learning procedure that use the Internet as a medium of instruction which is a process of developing and maintaining connections with people and information, in which the learners support one another’s learning

**Synchronous Instruction**: Online facilitated instruction that is led by a facilitator in real time