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Quadrant of Blended Learning: a Proposed Conceptual Model for Designing Effective Blended Learning

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Abstract

Blended learning is not just simply combining online learning with face-to-face learning. It is dynamic and context dependent. It can be viewed from different contexts and perspectives. Different context has different needs and characteristics. It needs different blend of blended learning. But, blended learning has one same ultimate goal, i.e. to determine the most appropriate blend to make optimum learning experience occur. Recent literatures and studies showed that e-learning and blended learning are synonymous with synchronous and asynchronous learning. Therefore, the purpose of this paper is to propose a conceptual model of blended learning design and its definition viewed from the perspective of those learning setting. This conceptual model, called quadrant of blended learning. It consists of four quadrants, i.e.: 1) quadrant 1: live synchronous learning; 2) quadrant 2: virtual synchronous learning; 3) quadrant 3: collaborative asynchronous learning; and 4) quadrant 4: self-directed asynchronous learning. As a conceptual model, it is expected that it can provide framework and idea for instructional designers in designing effective blended learning strategies.

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INTRODUCTION

E-learning is a very famous word in information era, nowadays. E-learning itself has been popularized since 1980s (Pegler & Littlejohn, 2007). It is a generic term as an umbrella for many other related terms such as virtual classroom, online learning, blended learning, embedded learning, et cetera (Horton, 2006). Blended learning is one of the most popular and broadly mode use in higher education.

When we hear blended learning, it is identic with the combination of face-to-face learning with online learning. It is not just as simple as like that. Essentially, blended learning is a decision to pick the most appropriate learning strategy to address certain intended learning outcomes. It means the ultimate goal of blended learning,as well as other learning process, is to make learning events occur optimally. Meanwhile, learning events actually occur in a certain learning setting both in asynchronous or synchronous situation (Smaldino, Lowther, & Russel, 2008).

This article will explain blended learning from a different perspective, i.e. from learning setting perspectives. In other word, it will be viewed from the perspective of time and place when learning events may occur. This article, tried to synthesize some author' views of blended learning found in many recent studies.

BLENDED LEARNING: SOME DEFINITIONS

Some authors define blended learning differently. But, all definitions lead to one ultimate goal, i.e. determining the most appropriate blend to achieve certain intended learning outcomes in certain characteristic of learning setting. Authors synthesize three main points of blended learning defined by some respective authors as follows:

Providing Access To Learn Anytime And Anywhere Using Electronic Technology

Some authors emphasize blended learning as providing learning anytime and anywhere opportunities using appropriate electronic technology. For example, blended learning defined as access of learning resources anytime and anywhere (Gardner & Bryn, 2006) by using any electronic devices such as computer or mobile phones to deliver learning materials (Stockley & Derek, 2003). Access to learning resources become the main focus of blended learning. Its offer flexible learning for everyone. This is a very broad definition of blended learning to support life-long learning philosophy.

Innovation of technology integration as a response to the development of technology

Blended learning also can be viewed as a response to the development of technology. It is not just simply viewed as the combination of online with face-to-face learning. Thorne defined blended learning as an opportunity to integrate the advance of technology innovation that can be offered online and face-to-face (Thorne, 2003). As a response to the development of technology, blended learning is basically the combination of the best of face-to-face learning with the best of online learning (Watson, 2008). It means, blended learning is dynamic responding to the development of technology and learning needs itself. As consequences, technology integration (technology blend) in blended learning will be context dependent. Different context has different characteristics and needs. As consequences, it needs different blend of blended learning.

Appropriate blend of synchronous and asynchronous learning setting

Naturally learning happens in a learning setting (Smaldino, Lowther, & Russel, 2008) which is consist of two situations, synchronous (time dependent learning) and asynchronous (time and place independent) learning. Most authors relating e-learning with blended learning definition from the perspective of synchronous and asynchronous learning setting (Roseth, Akcaoglu, & Andrea, 2013). Howard *et. al.* for example, defined blended learning as an effort to apply synchronous learning elements as a complement of asynchronous learning activity (Howard, Remenyi, & Pap, 2006). Piskurich defined blended learning as the

combination of synchronous and asynchronous learning components to achieve optimum learning effectiveness (Piskurich, 2006).

QUADRANT OF BLENDED LEARNING AS CONCEPTUAL MODEL FOR DESIGNING EFFECTIVE BLENDED LEARNING

Blended learning, as mentioned above, can be viewed from different perspectives. Certain conceptual model from certain perspective plays an important role as a guide or framework in understanding and designing blended learning strategy. Since, conceptual model is actually a pattern that can be used as framework or reference. It is a simple representation of a complex form of process or idea [11]. The purpose of this article is to propose a conceptual model of blended learning design based on perspective of learning setting (asynchronous and synchronous learning).

With reference to the works of Derek &Stockley (2001), Thorne (2003), Horton (2006), Bonk & Graham (2006), Howard (2006), Piskurich (2006), and Smaldino et. al. (2008), as mentioned above, authors conceptualized blended learning dimensions in a quadrant of blended learning, described below [**see figure 1].**

Figure 1 illustrates four quadrants of blended learning viewed from the perspective of learning setting. Learning settings are the situations or conditions where learning experience takes place. They can be divided into two categories, i.e. synchronous and asynchronous learning. Each category can also be divided into two categories, described as follows:

- **Live Synchronous Learning (LSL);** is learning experience that occurs between the learner and the learning resources at the same time and place. LSL is the same as face-to-face learning, such as lecture, group discussion, lab practice, field study, etc.
- **Virtual Synchronous Learning (VSL**); is learning experience that occurs between the learner and the learning resources at the same time, but diferent place. This learning setting can be mediated by synchronous tele-learning technology such as audio-conference, web-based conference or video-conference.
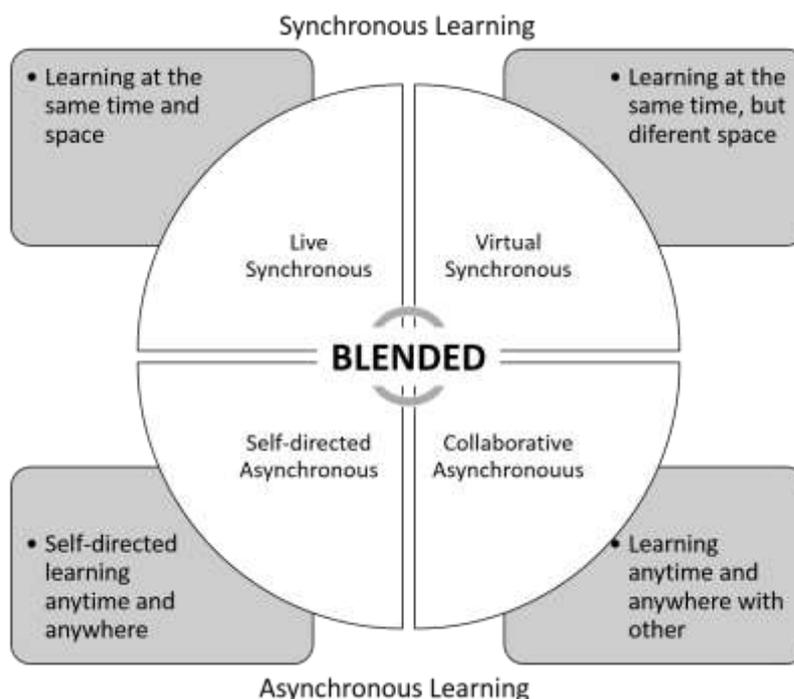

Figure 1. Quadrant of Blended Learning

- **Collaborative Asynchronous Learning (CAL);** is learning experience that occurs between the learner and the learning resources at any time or place with other resource persons. CAL can be mediated by asynchronous learning tools such as discussion forum, miling list, online assignment, etc.
- **Self-directed Asynchronous Learning (SAL);** is learning experience that occurs between the learner and the learning resources at any time or place under their own pace and control. SAL can be facilitated by various high quality of learning objects in many forms of appropriate media, such as text, audio, visual, audio-visual, animation, and simulation.

Learning activities on each quadrants can be describe as on the table below [**see table 1**].

2With references to the quadrant of blended learning described above, the authors then defined blended learning from the perspective of learning setting, i.e. synchronous and asynchronous learning. Blended learning is a form of learning that combines in such a way the best potential of synchronous learning strategies with the best potential of asynchronous learning strategies to create optimum learning experiences which serve to achieve pre-determined intended learning outcomes.

Table 1: Learning Activities Option

Blended Learning Setting			
Synchronous Learning		Asynchronous Learning	
Live Synchronous Learning (LSL)	Virtual Synchronous Learning (VSL)	Self-Directed Asynchronous Learning (SAS)	Collaborative Asynchronous Learning (CAL)
Learning Activities			
- Lecture - Discussion - Practice - Workshop - Seminar - Lab practice - Field trips ...	- Virtual class - Audio-conference - Video-conference *Web-based* conference (webinar) ...	- Reading - Watching (video, *webcast*) - Listening (audio, *audio cast*) - Online Study - Simulation - Drill and practice - Test/quiz - Journal/publication (wiki, blog, etc.) ...	- Participating in discussion forum - Online assignment (individual or group) - Group research/project - Sharing publication - Learning community of practice ...

CONCLUSION

Blended learning can be viewed from different perspectives. It is actually dynamic and context dependent. Based on the works of some respective e-learning experts and practitioners found on recent literatures, authors propose a conceptual model of blended learning design from the perspective of learning setting (time and space dimensions), called quadrant of blended learning. According to this conceptual model, blended learning setting can be categorized into two categories, i.e. synchronous learning and asynchronous learning. Each category also divided into two categories. Therefore, there are four quadrants of blended learning; i.e. live synchronous learning, virtual synchronous learning, collaborative asynchronous learning, and self-directed asynchronous learning. Based on this conceptual model authors propose a definition of blended learning as a form of learning that combines in such a way the best potential of synchronous learning strategies with the best potential of asynchronous learning strategies to create optimum learning experiences which serve to achieve pre-determined intended learning outcomes.

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