USE OF BLENDED LEARNING IN HIGHER EDUCATION – SOME EXPERIENCES

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ABSTRACT

This article reports on the use of blended learning in higher education. Blended learning has become popular in higher education in recent years. It is a move beyond traditional lecturing to incorporate face-to-face learning with e-learning, thereby creating a blend of learning experiences. The problem is that learning in higher education is complex and learning situations differ across contexts. Whilst there is face-to-face contact at some institutions, others offer distance learning or correspondence learning. In each context, the mode of learning may differ. The challenge is to cater for various learning opportunities through a series of learning interactions and to incorporate a blended approach. The aim of this study is to examine various ways of defining blended learning in different contexts. This was done through an examination of experiences of the use of blended learning in different higher education contexts. The study presents a case of blended learning in a postgraduate course. The experiences from all these cases are summarised and conclusions and recommendations are made in the context of blended learning in higher education in South Africa.

Keywords: blended learning, higher education, experiences, contexts, postgraduate

1. INTRODUCTION

The current dilemma in higher education, more than at any other time in history, is that we are teaching and reaching a complicated cohort of students using technologies and tools many of us have never experienced as learners (Milliron and Plinske 2009).

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This means that the complex nature of the learning contexts needs careful consideration and that the providers of the learning experiences need to skill themselves first before attempting to provide meaningful learning experiences for students. The problem is that teaching methodologies and modes of delivery are dynamic and require fast interventions. Traditionalists will argue that conventional classroom lectures have been and always will be the most effective form of teaching (Henrich and Sieber 2010). However, with the changing learning landscape has come a change in thinking, and reaching into open distance learning is becoming increasingly important, as more and more public and private higher education institutions venture into blended, distance and e-learning, thereby blurring the historical boundaries between face-to-face higher education and distance education (Prinsloo and Coetzee 2013, 1356). While many universities have incorporated the use of educational technologies into their mission statements and pedagogical dreams, the response of educators towards leveraging mobile technologies has been quite the reverse, thereby overlooking the potential of mobile technologies such as cell phones and laptops to provide an interesting and enriching learning experience (Menkhoff and Bengtsson 2010, 471). Menkhoff and Bengtsson (2010) argue that students are prepared for the blended learning environment and consider it a routine part of their learning activities; they suggest that universities are not ready to leverage this trend due to ignorance and lack of skills in areas such as technology enabled learning.

The generation gap that Green and Hannon (2007) refer to enables Generation Y students to access various technologies and, simultaneously, tackle tasks such as assignments and queries of peers, and to keep in touch with fellow students. In addition, according to Menkhoff and Bengtsson (2010), learning experts have proclaimed the emergence of Generation CX, who generate their own (learner-generated) context (= CX). This mobile learner-generated context is conducted by learners who use mobile devices to communicate (Cook 2007). 'These learners raise context-creating questions during dialogue with others and/or while interacting with multimedia resources. When other learners provide answers to these context-based questions, new insights and new knowledge are being generated which supports learning outcomes' (Menkhoff and Bendtsson 2010, 473).

Oblinger and Oblinger (2008) outline the core differences among these three dominant groups interacting in higher education today. The Boomer Generation (born 1943–1960) grew up with televisions, typewriters and telephones, using paper for writing memos and letters, and is called the 'family' generation. Generation X (born 1961–1981) grew up with video games, personal computers, emails, and lived through the transition from records to CDs. They have a strong individualistic streak, and are called the 'me' generation. The Net Generation (born 1982–2001) referred to as the 'we' generation, do not remember a time without the Internet and worldwide connectivity; their always-on communication has been fuelled by cell phones and instant messaging. They have the highest expectations of our technology infrastructure. It is for such a net generation that we need to prepare our higher education learning contexts.

To make such a learning context possible, Henrich and Sieber (2010) advocate for a university-wide learning management system as part of the IT infrastructure, whilst at the same time giving lecturers the free choice on how to integrate this opportunity into their teaching. They admit that there is a challenge to create a unified university-wide system that is centrally administered, has a high availability and offers the students access to all digital learning assets through one portal in a single sign-on manner (Henrich and Sieber 2010, 84). In building for this new generation of learning, Milliron and Plinske (2009) argue that other equally pertinent conversations need to take place as well. They call for conversations around blending, core services, mobility, gaming (immersive, play-based learning), social networking, holographics, embedded analytics and the human touch.

In examining the current generation of students and the infrastructure needed to support their highly technological learning contexts, it is evident that the level where the students are differs greatly from that of the lecturers and institutions of higher education. In addressing this gap, the next section focuses on the notion of blended learning by examining the various definitions of blended learning, the pros and cons of blended learning, and blended learning approaches used in various contexts.

2. BLENDED LEARNING

2.1. Definitions

Blended learning is defined as 'the thoughtful integration of classroom face-to-face learning experiences with online learning experiences' (Garrison and Kanuka 2004, 96). Derived from e-learning, which falls short of teaching or transferring knowledge, skills and abilities (Sims, Burke, Metcalf and Salas 2008), blended learning has evolved into a more integrative training solution that combines event-based activities designed to improve problem-solving and decision making (Alonso, Lopez, Manrique and Vines 2005). However, the meaning of blended learning has changed over time. Friesen (2012) looks back at the history and etymology of blended learning. He examines the origin and divergence of this concept between 1999 and 2004. One of the first occurrences is in a 1999 news release from EPIC Learning, an Atlanta-based computer skill certification and software training business (Friesen 2012, 1). Later on, Driscoll (2003, 1) emphasized that blended learning means different things to different people. She found that blended learning referred to four different concepts:

- 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, behaviourism, 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.

Friesen (2012) identified the period 2006 to 2012 as a consolidation and clarification phase in the evolution of the definition of blended learning. He identified a 'shift in the use of the term blended learning: the importance of this term in the higher education context ... became clear, as did a broadly consensual understanding of its meaning' (Friesen 2012, 3). Friesen (2012, 1) suggests a composite definition as follows: 'Blended learning designates the range of possibilities presented by combining Internet and digital media with established classroom forms that require the physical co-presence of teacher and students'. Graham (2006) defined a blended learning system as one that can 'combine face-to-face instruction with computer mediated instruction'. According to him this working definition 'reflects the idea that [blended learning] is the combination of instruction from two historically separate models of teaching and learning' (Graham 2006, 5). In line with Graham's definition, Garrison and Vaughan (2007, 5) talk of the textual nature of online texts as opposed to the oral communication typical of the classroom – 'Blended learning is the thoughtful fusion of face-to-face and online learning experiences ... Although the concept of blended learning may be intuitively apparent and simple, the practical application is more complex'. In its current use, Friesen (2012, 5) found that the concept of blended learning has stabilised in the higher-education context – 'one can say that blended learning as a term depends on the differences, similarities and compatibilities evident between two sets of terms ... face to face and distributed systems, modes or forms of instruction'. Of particular interest to the higher education sector is the blended learning model for the Innosite Institute (Staker and Horn 2012). Two of the combinations are directly relevant to higher education. The *rotation model* embeds online engagement within a range of face-to-face forms of instruction in a cyclical manner, and the *enriched-virtual model* in which online, virtual experiences are seen as being enriched only periodically through arrangements of physical co-presence (Staker and Horn 2012, 8–15).

2.2. Pros and cons of blended Learning

As with any form of interaction in the teaching and learning environment, there are definite challenges to successful implementation. In the case of blended learning, not all students have access to high-speed networking, which is essential in a blended learning

environment (Milliron and Plinske 2009). Technology constraints pose a big threat to the success of blended learning; this is especially a challenge in developing countries and in rural areas (Frantz, Himalowa, Karuguti, Kumurenzi, Mulenga and Sakala 2011). According to Frantz et al. (2011, 15), if the challenge of technology can be met, more especially in developing countries, 'blended learning can be effective in building students' engagement and relieving of overcrowded classrooms in higher learning institutions'. It is also argued by Sims et al. (2008, 23) that most of the guidance offered to practitioners of the blended learning approach 'typically focuses on the *bells and whistles* of the technology rather than the educational value of blended learning'. There is also a trend of thought that irrespective of the age, skill level or preparedness of students in higher education, the students will engage lecturers on a continuous basis and their diversity will also pose a challenge (Milliron and Plinske 2009). One very challenging aspect of the South African context is the issue of language. Due to the official status of eleven languages, offering a learning experience using the blended learning approach may pose a challenge to English second- or third-language learners. This challenge becomes more complicated, say Van Deventer and Van de Merwe (2011), in a distance learning environment where the communication process is mediated through text that is often not the first language of the student. Clearly, the South African context contains many threats for the lecturer keen to use the blended learning approach. However, from my personal experience, I have observed that it is within complex contexts that one can really test the boundaries of the blended learning approach or adapt it to suit the peculiarity of the environment. Another significant disadvantage associated with blended learning is the amount of time that needs to be spent by both lecturers and students. Cottle and Glover (2011, 207) argue that it is possible that students may struggle with the 'increased responsibilities' of a blended format and that lecturers may need to spend a significant amount of additional time creating or updating courses. This can cause strain in an already time-deficient higher education learning environment that is characterised by large classes, heavy workloads and increased assessment demands.

Despite these and other challenges that are experienced in the use of the blended learning approach, there are numerous advantages, as highlighted by various authors (Driscoll 2003; Cottle and Glover 2011). Driscoll (2003, 1) explains the possible reasons why blended learning has been so easily adopted: it is a good way to initiate an organisation into e-learning; the learner, the lecturer and the institution benefit from using blended learning; blended learning uses small steps to move a student from a traditional classroom to an e-learning one, thereby making change easier to accept; lecturers and instructional designers are able to develop the skills needed for e-learning in small increments; cost and resources drive organisations to supplement or complement existing course materials. Cottle and Glover (2011) also reported that students experienced more student interaction and authentic learning and they felt a greater sense of community within the class.

Although there are both pros and cons for the use of the blended learning approach, clearly more research is required to support these differing views (Cottle and Glover 2011). It is for this reason that the article also includes descriptions of a few experiences using the blended learning approach as they give empirical evidence for or against this approach. However, I firstly examine a few approaches adopted in blended learning that provide insight into the use of this approach.

2.3. Blended learning approaches

Sims et al. (2008) provide ten research-based guidelines to aid in the development of theoretically sound blended learning courses: consider the individual; diversify learning strategies; let outcomes be your guide; provide structure and guidance; evaluate now and later; provide demonstrations and feedback; activate and build on existing knowledge; learn through collaboration; align learning modules; and support content adaptability through technology. It is evident that their guidelines focus on technology, collaboration and a diversification of learning.

Driscoll (2003) mentions that people use blended solutions in the following ways: put the assessment online; follow up with a community of practice; make reference materials available; deliver pre-work online; provide online office hours; use mentoring/coaching as a tool; provide job-aids; access experts; create a lifeline; and maximise email and messaging. Although this sounds more like a business solution, higher education institutions are increasingly being run as businesses, so it makes sense to examine and apply a business model to blended learning.

Milliron and Plinske (2009) also suggest key catalytic conversations that need to take place in order to shape how, where and why we learn, especially related to the use of new technologies and techniques. They suggest conversations around blended learning, mobility, gaming, social networking, holographics, analytics and the human touch. The human touch is an important factor in the blended learning scenario. This is increasingly so in a distance learning context. Van Deventer and Van de Merwe (2011, 190) argue that the focus is on 'academic support that students as human beings need'. They identify *social presence* as one social factor that is of particular significance in the open distance set-up. They discuss the human rights perspective for social justice in a blended open distance learning environment; in particular they mention availability, access, acceptability, adaptability and high quality academic and administrative support. The human touch and, in particular, socialisation, is one of the essential elements in knowledge construction (Zhao and Jiang 2010). The study by Zhao and Jiang (2010, 405) concludes that 'socialization is an essential element for learners engaged in network learning, especially for knowledge construction activities in discussion forums'. Friesen (2012, 8) examined various definitions and contexts of blended learning, and based on these came up with a decision tree that can be used to determine whether a course is 'blended' or not.

3. LEARNING THEORIES

For any academic planning a course using the blended learning approach, the first crucial step is to understand how learning occurs in general and for adult learners in particular. Many theories have been postulated on how learning occurs. Bezuidenhout, Van der Westhuizen and De Beer (2005) identify behaviourism, cognitivism and constructivism as the main theories in the development of blended learning materials. These three schools of thought can be used in instructional design; behaviourist strategies can be used to teach the 'what' (facts), cognitive strategies the 'how' (process and principles), and constructivist strategies the 'why' (higher level thinking that promotes personal meaning and situated and contextual meaning) (Ertmer and Newby 1993, 50 in Bezuidenhout et al. 2005, 2–3).

Behaviourist learning is based on the principle that learners are rewarded for correct responses and behaviour (Cross 1988, 232). This change in behaviour is usually the result of an external stimulus in the environment, and the change in behaviour is an indication of whether learning has taken place or not. 'In blended learning, behaviourism can be used through multiple task setting to see whether learners have reached the desired outcomes. Tasks need to be broken down in small, measurable chunks. This is an important feature in blended learning that caters especially for e-learners' (Bezuidenhout et al. 2005, 5).

Cognitivism focuses on the internal mental processes of learning, that is, memory, thinking, reflection, obstruction, motivation and meta-caption (Bezuidenhout et al. 2005, 6). Learning is seen as an information-processing process in which different types of memory are used during learning (Anderson and Elloumi 2003, 8). The advantage of cognitive models is that they provide students with conceptual frameworks within which they can explore and discover, thereby learning new things in the process. Through the process of metacognition, students are able to control learning and, therefore, knowledge intake, and sharpen their problem-solving skills. This means that students may adopt different learning styles and process information differently and therefore require that online learning instruction cater for these learning styles (Anderson and Elloumi 2003, 16). Blended learning in this context can cater for individual differences through a process of establishing the students' preferences before designing relevant activities (Bezuidenhout et al. 2005).

Constructivism is a learning theory that focuses on the way in which knowledge is constructed, and is based on a process of building knowledge through various learning experiences. Through these experiences and schema, we construct our own perspective of the world (Bezuidenhout et al. 2005). Various models of constructivism have been put forward. Of particular significance to blended learning is the work of Lev Vygotsky, a social constructivist. He coined the term 'zone of proximal development', which refers to the stages of what a student can do, ranging from the lower limit to the upper limit

of the student's potential (Kearsley 2000). According to Bezuidenhout et al. (2005), the necessary guidance in blended learning is made possible through facilitator-learner interactions and learner-learner interactions. These technologies in blended learning, they say, can move the student to the upper levels of learning, and result ultimately in independence.

Kawka, Larkin and Danaher (2011) proposed the design and creation of a pedagogical space in order to theorise about how a learning task may be constructed so that it offers the best opportunities for emergent learning. Their matrix comprises four parameters: teacher-directed content; student-directed content; interactive learning; and non-interactive learning. The interactive learning framework suggests the creation of a collaborative, student created media text where students are provided with multiple opportunities for interaction so that they can experience the sense of working together on the same goal. For example, in the fourth quadrant of the matrix, which is called the student directed content/interactive learning framework; the task completed here is characterised by the sharing processes implicit in social networking. Kawka et al. (2012, 7) suggest that this domain is of particular interest in distance learning, because it 'can be utilised to understand emergent learning environments and to alert online educators to the need for high structure and high dialogue is such emergent spaces'.

Another theory that is considered in the distance and blended learning contexts is transactional distance theory (Moore 1993). Here the transactional distance is not geographical, 'rather it is a pedagogical concept encompassing the separation of learners and teachers by time and space' (Kawka et al. 2012, 8). Therefore, they argue for the use of different pedagogical approaches that involve dialogue, structure and learner autonomy. The level of transactional distance will determine the level of the pedagogical approach used. This is of particular relevance when designing e-learning courses.

The next section provides examples of empirical research on blended learning in different countries and in different courses. This section on the experiences highlights the contexts within which blended learning is used and the lessons that have been learnt. Thereafter, I present the case of blended learning within a postgraduate programme.

4. EXPERIENCES OF BLENDED LEARNING

Biju (2010) reports on the increasing use of blended learning in the Gulf region of Dubai. Colleges and universities are making use of E and blended learning as an integral part of their instructional activities. The study states that web-based instruction is revolutionising the way in which students think, work and access information. Biju (2010) reports an increase in the number of colleges that use e-learning technology from 5 to 25 in a period of five years, with most of the universities in the Gulf having an 'e-learning centre for excellence'. Blended learning is useful in this context, because it helps students who are working or travel frequently to keep in touch with what is happening in the classroom; it allows students who find it difficult to speak up in class

to participate in online discussion forums; lecturers and students are able to save time, which can be used to develop and improve on the course material. Biju (2010) states that universities use a combination of asynchronous and synchronous modes of online learning. In the asynchronous mode, lectures, assignments and examination questions are uploaded and made available to students online. Queries may be sent to the lecturer online. In the synchronous mode of online learning, lecturers and students are required to login to the class at a particular time, decided in advance. The lecturer presents the lesson using various kinds of online methods like PowerPoint; students interact online and may ask questions. The study found that students enjoy the discussion sessions the most and this motivated them to login to the lesson more often. University classes in the Gulf region have also utilised the web-based programme, Just-in-Time Teaching (JiTT), which is used to teach problem solving in physics online. There are also e-learning classes that are designed in Second Life, which is a 3-D virtual world, which offer chemistry experiments, or training classes for driving a car or flying a plane, all online. Lecturers also encourage students to create their own e-portfolios for future employment. Mobile learning is everywhere in the Gulf region, with wireless technology the norm in all environments.

The next study, by Heirdsfield, Walker, Tambyah and Beutel (2011) focuses on the use of Blackboard as an online learning environment, at the Queensland University of Technology in Australia. Here teacher education staff and students use Blackboard as an online learning management system. The study reported on the experiences of staff and students who use this online tool. The majority of students reported that access to all types of unit material and information was the most valued feature of Blackboard. Other favourable aspects were: spent less time looking for material; accessibility and flexibility of Blackboard made learning less daunting and helped with revision before exams; time saving for travel to campus; minimised the need for face-to-face contact; use of wikis developed group work skills; discussion forums made students think. Some of the negative comments were: costs of access and printing; lack of consistency on how materials were organised on different Blackboard sites; use of multiple passwords because Blackboard was not integrated with other university administration systems. Staff responses were similar to those of students. However, the majority of staff did not make use of video-recorded lectures. Staff identified low lecture attendance for on-campus students, who preferred to watch online, and reported that distance students used the interactive features of Blackboard as their primary means of learning. Staff also enjoyed the interactive features on Blackboard, but found that some of the discussion forums were not user-friendly. They used the Blackboard learning tools for formative rather than summative assessment. The study concluded that staff need training, support and encouragement if they are to move towards more interactive and innovative pedagogies online.

Hiralaal's (2012) study reported on students' experiences of blended learning in Accounting Education at the Durban University of Technology. They identified

e-learning as one of the objectives of their curriculum renewal process. To achieve this objective, blended learning was implemented as a teaching approach in Accounting Education. The findings of the study indicated the following: students experienced a significant improvement in their performance in Accounting Education; they were more motivated to learn; they experienced increased levels of independence in the learning process; they acquired a deeper understanding of the subject matter; additional learning materials were readily available via hyperlinks to websites; the students got immediate feedback from online assessments; there was greater lecturer-student interaction, as well as student-student interaction through meaningful dialogue with peers; increased convenience, flexibility and access to learning in the blended learning environment. One of the areas of concern was that inadequate facilities hampered the ability of the students to use the online classroom to its full potential.

Mayisela's (2013) study on the use of mobile technology to enhance accessibility and communication in a blended learning course revealed the following findings: students with access to mobile technology had an increased opportunity to access the course-ware of the blended learning course; mobile technology enhanced student-to-student and student-to-lecturer communication by means of social networks. The study also found that for many students, internet connectivity was a problem and the study recommended the establishment of wireless networks in student areas such as residences, classrooms and library.

Louw's (2012, 122) study examined the benefits of a blended approach in teaching undergraduate mathematics. The study used clickers (clicker tests indicate existing misconceptions), minute papers (reflect on earlier work and indicate one thing learnt) and muddiest point papers (reflect on a section of work and indicate one thing that is still unclear) and board work as educational tools, and incomplete sentences as evaluative tool. The study found that clickers played a role in the students' success rate, but the way clickers were blended into the teaching approach was central to the success. Louw (2012, 132) points out that 'If lecturers use a well-designed blended approach to mathematics teaching, they will break down students' fear of this subject'.

Nagel and Kotzé's study (2011) used the Community of Inquiry (CoI) survey to compare the results of two blended postgraduate courses taught by the same lecturer, one predominantly online and the other face-to-face. They were able to establish that using the peer review for formative feedback was a beneficial strategy to facilitate large classes. According to the study, 'the CoI survey showed the strengths of the online environment, with very strong teaching presences due to good organisation, comprehensive online supportive documentation, and automated feedback' (Nagel and Kotzé 2011, 151). Interestingly, social presence was low in both classes. This corroborates previous literature presented in this article on social presence as the potential area of weakness in an e-learning or blended learning environment.

Tshuma's (2012) study on the use of blended learning in a Computer Skills course at Rhodes University using Moodle revealed the following findings: for the lecturer,

the design of the instructional materials for the blended learning model was tedious and time consuming in the first cycle, this improved in the next cycle; students were not happy with peer assessments of website presentations; the forum discussions revealed excessive use of sms language and insensitivity in relation to cultural differences of fellow students; difficulty in motivating students to continue engaging in the online environment beyond the required coursework; difficulty in catering for all learning styles and developing learning style flexibility; difficult to get the students to buy into the importance of developing higher-order learning skills through group work, peer assessment, self-reflection and analysis.

There are some common threads running across the different studies examined above. Connectivity is sometimes a problem, thereby preventing access. Also, in each study, different elements of success and challenges were identified. This points to the context-relevant challenges faced in each of the institutions, which makes the blended learning environment quite challenging. It also implies that guidelines for blended learning must take into consideration many factors that are related to the particular course offered.

4.1. A case of blended learning in a postgraduate programme

In this section, I present the case of the use of blended learning in a postgraduate programme at the University of Limpopo. The course is offered annually to postgraduate students as a support course to help them with all aspects of their postgraduate study. It usually attracts between 400 and 500 students annually. This means that it can be classified as a large class. It is held during each recess and covers eight one-day modules. Attendance is voluntary and an attendance certificate is given to students who have 80 per cent or higher attendance. A postgraduate manual is used for the course. It is available both online and in hard copy. All forms related to postgraduate study are also available online, for example, cover pages for proposals, ethics forms and proposal format. The first two modules involve orientating students to research at the university. This involves a visit to the library, where training is done on accessing and using online databases. Communication with students is done online, for example, reminders for session attendance, sending out calls for funding, filling in evaluations. All session PowerPoint presentations are also provided online. Therefore, the delivery of this course combines face-to-face contact with online content. Some of the challenges in terms of facilitating this course are as follows: not all students have access to internet facilities (especially those who work and are part-time postgraduate students); students do not regularly read their communication messages; working with a large group makes individual attention virtually impossible; students are at different levels of postgraduate study – catering for this in an online format is very demanding; wireless connectivity is erratic and poses a challenge when using it to facilitate modules. Some of the successes are the following: students appreciate the course being offered in this format – they are

more knowledgeable about online learning than the facilitator; and students constantly report that the format of the course made postgraduate study easier for them.

The course is evaluated by students. The evaluation is divided into different modules. Over the last four years, a summary of evaluation is as follows: postgraduate students like the library training on databases and would like this to be extended; the practical approach of all sessions helps students with their own dissertations/theses; they wanted to have a variety of facilitators – currently there are six lecturers facilitating the different modules; learning to use software for data analysis is welcomed and enjoyed but challenging; online referencing, literature searches and general content provided are used extensively. Overall, this course has become very successful and more students enrol every year. Using a blended learning format can be challenging, but it also becomes easier with time.

Based on the literature reviewed, the experiences of lecturers using blended learning and my own experience as a facilitator of a blended postgraduate programme, the following is recommended:

5. RECOMMENDATIONS

- Blended learning should be made compulsory at higher education institutions. Technology has become an integral part of learning, and using it for higher education teaching and learning should be seen as a natural progression and evolution in the learning environment.
- In the South African context, internet connectivity and wireless availability should be a priority, especially at institutions for higher education in rural areas.
- Blended learning is a key for teaching successfully in large classes, a situation that is commonplace across all higher education learning institutions.
- Blended learning strategies should be designed to suit the context of the learning environment. This is supported by the evidence presented from the empirical studies.

6. CONCLUSION

Blended learning is a relatively new concept in higher education, where the traditional lecture method has dominated for a very long time. Therefore, the strategies used are still experimental. However, it is clearly evident that blended learning may be applied differently in different institutions and classrooms. Since it involves e-learning, there are always challenges with connectivity, especially in rural areas. This is a serious challenge that requires intervention from a wide range of stakeholders. Clearly, it is enjoyed by students and they are more comfortable using technology, being Net Generation

learners. Many institutions and lecturers still need to open themselves to the wide range of learning opportunities that blended learning makes available.

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