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BLENDED LEARNING AND THE PERCEIVED FUTURE OF TECHNOLOGY ASSISTED CLASSROOM: ENTICERS AND BARRIERS

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Abstract
Over the last two years, learning institutions worldwide have seen massive changes due to the pandemic which has resulted to a shift in the way educators teach. Leveraging technology, educational software, and new learning tools, educators across the globe are increasingly blending in-class and online learning strategies. The main focus of blended learning model is to afford learners more freedom in the way that they learn and engage in their education. Although, the concept of blended learning has been around for a while, its use and limitations have been very much in focus. This paper explores the concept of blended learning, the different levels of blended learning, the benefits and the challenges involved in its effective implementation. The paper suggests that, in order to effectively implement blended learning in learning institutions, there should be reliable internet connectivity with good bandwidth, accessible laptops and smartphones for the students. There should be proper integration of in-person and online learning activities in-line with the pedagogical principles of both so as to facilitate meaningful learning. Students should be well sensitized on the issue of cyber-malice, unethical learning practices, academic dishonesty, identity theft and bullying hence, these are common mishaps bedeviling online learning. Teachers and students should engage in technology-based skill development and trainings so as to attain technological literacy and competences required to apply technologies in education. Students should be adequately motivated since they are bound to engage in a wide range of shifting learning modalities.

Keywords: COVID-19, pandemic, in-person, technology, e-learning

Introduction

The gradual evolution of conventional teaching and learning into blended mode of education, prior to the unprecedented situations created by the pandemic, abruptly transformed into emergency remote teaching and as such, teachers had to quickly respond to an unexpected and 'forced' transition thus, accelerating the shift from traditional to online educational method (Mouyabi, 2011). Teachers are also transitioning through a particularly uncertain time in terms of their professional lives and looking for new ways and approaches to devise new norms of normality. Blended learning, a hybrid of in-person and online learning, is one of the many proposed models for the future of the technology-assisted classroom. Cleveland-Innes (2017), noted that, blended learning offers access to the widest range of learning modes and methods for developing student skills and expertise. Several findings on blended

learning indicated that, it increases learners' ability to collaborate, think creatively, study independently and to tailor their own learning experiences to meet their individual needs. In agreement with this, Harvey (2003), James and Carner (2010) opined that, a single mode of instructional delivery method may not provide sufficient choices, engagement, social contact, relevance and context needed to facilitate successful learning. This possibly accounts for why educational researchers have continued to explore different strategies that could provide effective learning and an improved academic performance of the students. Dean, Stahl, Sylwester and Peat (2001) added that, educators should use a blend of learning strategies to get the right content in the right format to the right people at the right time hence, blended learning combines multiple delivery media that are designed to complement each other and promote effective learning.

Similarly, Bonk and Graham (2006), defined blended learning as a learning system that combines face-to-face instruction with computer mediated instruction. Friesen (2012) stated that, the use of the term blended learning mostly involves combining Internet and digital media with established classroom forms that require the physical co-presence of teacher and students. Chui and Manjit (2006) opined that blended learning refers to a combination of e-learning and the traditional face-to-face instructor-led training (ILT), involving coaching, assignments and projects provided as support and reinforcement tool. Blended learning is the thoughtful fusion of face-to-face and online learning experiences (Garrison & Vaughan, 2008). Davies (2014) stated that, the basic principle of blended learning is that, traditional method of instruction and online strategy are optimally integrated such that the strengths of each are blended into a unique learning experience congruent with the context and intended educational purpose. He further described blended learning as a strategy of learning that mixes various event-based activities such as, self-paced learning, live e-learning and face-to-face instruction. Davis explained that, self-paced learning is when a learner takes self-activities at his leisure irrespective of time and place. Davis further noted that, live e-learning takes place in a virtual classroom at a scheduled time at which the learners undertake programmed instruction. This enables learners to collaborate, share ideas, and ask questions in real time mode. According to Davis (2003) also, the self-paced learning and live e-learning facets of blended learning have the following properties:

Online experts which offer the best sources and fast access to information for quick reaction, ability to get what you need, when you need it, ability to connect students with experts both in and outside the learning environment.

Personalized learning where each student selects his or her activities from a personal menu of learning opportunities most relevant to his background, job, or career. It provides learning events from many sources enabling the learner to select a favoured format or learning method or training provider and enabling the organizations to form learning communities whose members can forge ahead. Blended learning combines training, coaching, and self-help providing more learners' management and adhering to the fact that, learner's development is a continual process, through which experience required for doing the work is gained (Bishop, Caston & King, 2014). They further categorized blended learning into three models: **Skill-driven learning** which is a combination of self-paced learning with the face-to-face approach to develop specific knowledge and skills, **attitude-driven learning** which mixes various events and delivery media to develop specific behaviour and **competency driven learning** which blends performance support tools with

knowledge management resources and mentoring to develop workplace competencies.

Levels of Blended Learning

According to Kassop (2003), there are four levels of blended learning namely: activity level, Course level, Program level and Institutional level. Kassop stated that, at the program or institutional levels, blending is generally left to the decision of the learner, whereas at the course and activity levels, the teacher is more likely to take a role in laying down the blend. He further added that, at the activity level, learning activity contains both face-to-face and online or computer mediated elements. At the course level, it engages face-to-face and online activities that are used as part of a course hence, 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. At the program level, there are certain face-to-face courses that are required for a program and the rest can be taken at a distance or online. 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. 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 (Durmusoğlu-Köse, Özkul & Özyar, 2002). At the Institutional level, Blended learning enables students to have face-to-face classes at the beginning and at the end of the courses with online activities in between. Likewise, at a university level, the University of Central Florida has created the 'M course' designation for blended learning courses that 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).

Enticers to Blended Learning

This paper offers a comprehensive view of models and opportunities found in the blended learning space. Like any new way of doing things, there are both benefits and challenges to implementing innovative processes and products. We have referred to them as barriers and enticers, language from Lewin's Force Field Analysis for assessing any new activity (Mind Tools Videos, 2018). The following are benefits of blended learning:

a. **Improved Access**: Use of new technology and online resources not only make learning materials more widely available to more students, but also make the materials available to students in their local languages (UNESCO, 2014). Additionally, online learning modules can provide accessible education to students with physical or other disabilities.
b. **Student-driven:** Online learning provides students with more options regarding subject matter and mode of instruction to cater for their individual backgrounds, needs, and interests. Students have convenient, on-demand access to course materials and lectures, which allows them to progress through the course at their own pace. Additionally, the more autonomous nature of blended learning nudges students to improve their metacognitive awareness, which has been shown to be an important element of student success (Bransford, Brown & Cocking, 2000). In

other words, when educators use blended learning models, they encourage students to reflect and think about how they learn and change their study habits to match their needs.

c. **21st Century Skills Oriented**: It is generally accepted that, the global economy is driven by knowledge (OECD, 2008; UNESCO, 2005; World Bank, 2002); yet, according to a study conducted by CISCO (2008), school systems around the world are failing to equip learners with the 21st century skills they need to be competitive in the job market. The Partnership for 21st Century Skills organizes these skills into seven (7) categories: creativity and innovation, critical thinking and problem solving, communication and collaboration, information literacy, media literacy, ICT Literacy, and life and career.
d. **Matches Broader Trends:** Even though, currently, many countries have limited access to the internet, once people gain access to the internet, they quickly integrate it into their lives (Pew Research Center, 2014). Additionally, when students engage with online learning modules, they enhance their technological literacy, which is quickly becoming a necessary skill for the 21st century (Pearson & Thomas, 2002). In fact, as students and teachers become more adept at using technology, there are greater expectations that technology will be used for teaching and learning purposes (Dahlstrom, Walker, & Dziuban, 2013).
e. **Additional Opportunities to Collaborate and Interact**: In an online environment, students from around the globe can easily share, discuss, explain, and comment on learning materials. It is also easier for students to connect their life experiences to classroom materials especially when discussions are integrated with social networking tools. By using current, technological tools in classroom experiences, educators can make discussions more interactive, help create a borderless community of learners, and empower both educators and peers to give more immediate feedback to each other (Kassop, 2003).
f. **Matches How the Brain Works:** Ratey (2002) found that brain cells only grow when people are actively engaged. Additionally, the connections in our brains disappear if they are not repeated and reinforced. Bransford (2001) explained that, humans do not passively record events in their brains, but rather their brains actively process, recall, categorize and store information in a variety of different regions of the brain. Bransford also highlighted that, the functional organization of students' brains depend on and benefit from robust, engaging educational experiences.
g. **Prepares Students to Become Lifelong Learners:** There is no end point for creativity and innovation, students will likely work with many people from different cultures throughout their careers. Media's primary form of distribution has changed from paper to smartphones and will likely continue to develop, and many future job descriptions have not been written. Students will need to improve these skills throughout their lives, and for the majority of that time, their primary teachers will be themselves.

Barriers to Blended Learning

It is important to remember that designing an effective blended learning environment is difficult. Students and teachers often are required to acquire new skills and spend more time preparing for class. The following are challenges of blended learning as highlighted by researchers:

a. **Lack of Technological Inclination:** In terms of the challenges on the use of blended learning (Albiladi and Alshareef, 2019; Bataineh and Mayyas, 2017;

Crawford and Jenkins, 2017; Medina, 2018; Shand and Farrelly, 2018), studies have shown that not all teachers are inclined to technology-based instruction (Benson, 2011). Some teachers still consider the use of ICT as "time-consuming" (Benson, 2011). For example, some teachers believe that preparations of teaching materials for web-based instruction require more time than face-to-face instruction and so they are of the opinion that, the use of hybrid approach is more rigorous when it comes to teaching and learning preparations. This explains the idea presented by Ma'arop and Embi (2016) where they described blended learning as a burden, both physically and cognitively. Meaning that, teachers see the need to spend more time like designing the course platform, uploading of instructional materials, answering queries and evaluating students' online outputs thus, increasing their workload (Alebaikan & Troudi, 2010).

b. **Lack of Infrastructure**: lack of computers, internet connection, and Learning management system (LMS) instability, prohibit blended learning especially in developing countries. Dolot and Prenda (2016) illustrated some limitations of ICT integration in education like shortage of ICT facilities, poor maintenance of available or existing ICT resources and lack of ICT budget. In fact, in some developing countries, there are areas, particularly in rural areas, where reliable supply of electricity and internet are miles away to achieve. Thus, it inhibits and affects the capability of teachers to become skillful on the use of ICT in blending teaching and learning.
c. **Differentiation of Instructional Material**: The importance of having variety of learning activities, and not limited face-to face instruction cannot be over emphasized. Primarily, the use of blended learning environment **must not be** confined to submission bins of assignments rather, both synchronous or asynchronous teaching and learning discussions can be integrated as physical classroom extension (Ivankova & Moss, 2017).
d. **Lack of Self-pacing and Self-direction.** Online learning both requires and encourages learner independence and management. For example, some research suggest that many students will watch multiple weeks' worth of video lectures at once rather than according to course structure. Students come to online learning with varying degrees of learning competence; supporting such learning self-management should be part of all online learning experiences (Digital Chalk, 2014).
e. **Information Technology Knowledge and Skill.** Termed IT literacy, preparation for use of technological tools is required. Lack of such knowledge and skill is a significant barrier to access in the first place and quality learning experiences thereafter. Secondly, some institutions are resistant to changes in pedagogy that include the use of ICT, many teachers have little training and experience using online tools in the classroom, and feel that they will not be able to use them effectively to meet students' needs (Hamuy & Galaz, 2010; Digital Chalk, 2014).
f. **Issue of Privacy:** As technology becomes more integrated with students' academic and personal lives, students become more wary of their privacy (Dahlstrom, Walker, & Dziuban, 2013).

Suggestions

Creating effective blended learning environment means making appropriate choices and overcoming the challenges that come with the use of technology. The following suggestions are necessary for effective implementation of blended learning in institutions of learning:

i. There should be reliable internet connectivity with good bandwidth, accessible laptops and smartphones for the students.
ii. There should be proper integration of in-person and online learning activities in line with the pedagogical principles of both so as to facilitate meaningful learning.
iii. Students should be well sensitized on issue of cyber-malice, unethical learning practices, academic dishonesty, identity theft and bullying hence, these are common mishap bedevilling online learning.
iv. Teachers and students should engage in technology-based skill development and trainings so as to attain technological literacy and competences required to apply technologies in education.
v. Students should be adequately motivated since they are bound to engage in a wide range of shifting learning modalities.

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