



TEACHERS' PERCEPTIONS TOWARD BLENDED TEACHING APPLIED IN EFL CLASSROOM

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Abstract:

Blended teaching has recently attracted a lot of attention from educators and researchers worldwide. In Vietnam, blended teaching has been applied at various universities in different forms. However, few studies have been conducted to explore EFL teachers' perceptions of the use of blended teaching in Vietnam. The current study used a questionnaire to explore the perceptions of thirty EFL teachers from a large university in Vietnam. Findings reveal that EFL teachers gain various benefits and encounter different challenges when applying blended teaching in their classrooms.

Keywords: blended teaching, English as a foreign language, EFL teachers, perceptions

1. Introduction

Recently, the modalities of education and training have been continually changing and improving with the advent of many learning forms such as online or blended learning and teaching. Lamas, Paraskakis and Webber (2012) stated that the increased prevalence of digital technologies in education and academic investigations leads to the concentration of education institutions on blended teaching (BT) in educational evolution initiatives. Blended forms of teaching have become increasingly popular (Garrison & Kanuka [2004](#); Garrison & Vaughan [2008](#); Graham [2006](#); Spanjers et al. [2015](#)).

Despite various definitions of BT, it is commonly considered as an instructional model that employs different media and takes place on different time scales (synchronous, asynchronous) with the face-to-face (f2f) method of instruction (Roseth, Akcaoglu, & Zellner, [2013](#)). BT combines f2f learning with an online learning style, where 30–79% of the content is delivered online (Graham, 2006). Pereira et al. (2007) defined blended teaching as a teaching modality which is the synergic combination between attendance-based distance teaching or traditional classroom-based teaching and non-

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attendance-based distance teaching or e-learning. Meanwhile, Garrison and Vaughn (2008, p.148) state that blended teaching “*is the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies*”. Alternatively, BT can also be considered a useful mixture of technology-based and classroom-based teaching methods that allow students to gain complementary experiences through being proficient in using IT tools for study purposes and to acquire more helpful knowledge by doubling the instructions of teachers from online to f2f classes, and it is simply understood as Figure 1.

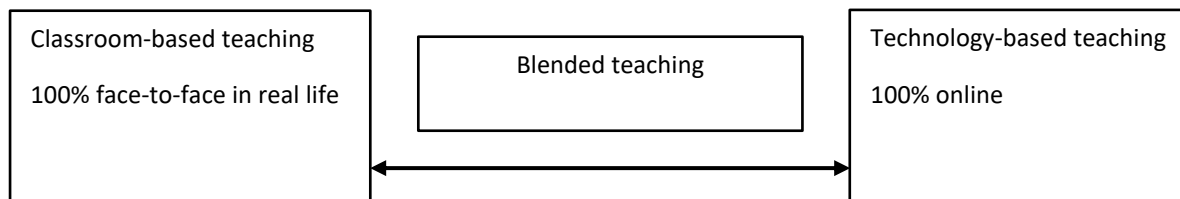


Figure 1: Overview of blended teaching

Porter, Graham, Spring, and Welch (2014) state that higher education institutions are adopting blended learning in high numbers and referred to BT as the combination of technology-supported learning and face-to-face learning methods. Moreover, the editor of the journal of synchronous learning networks forecasted that 80-90% of higher education courses would become blended in the future, and at the time of this statement, scholars have started to note the “explosive growth of blended learning” and have mentioned that BT will become the “new normal” way of learning in higher education (Porter et al., 2014, p.185).

In fact, the popularity as well as the application rate of blended teaching in EFL education is very high both in Vietnam and the world. On the one hand, BT provides many benefits such as helping students enhancing their language skills and improving their IT skills. On the other hand, there are various challenges that teachers need to face when applying BT into their classrooms. Understanding these benefits and challenges, teachers can come up with practical solutions to increase students' ability of acquiring and improving English knowledge. To our knowledge, studies have yet been conducted to explore Vietnamese teachers' perceptions of BL benefits and challenges. Therefore, the current study has been conducted to answer the two following research questions:

- 1) What are EFL teachers' perceptions of the benefits of blended teaching?
- 2) What are EFL teachers' perceptions of the challenges of blended teaching?

2. Literature review

2.1 Benefits of blended teaching

Pereira et al. (2007) claims that blended education is more effective than the traditional f2f method. Correspondingly, students gain various benefits from blended teaching (Gilbert & Flores-Zambada, 2011). Some typical ones include improving students'

learning achievement, enhancing their learning motivation, providing better access to learning resources, increasing interpersonal communication, boosting students' self-confidence, developing students' self-directed learning, critical thinking, and IT skills.

2.1.1 Learning achievement

Ellis, Steed & Applebee (2006) noticed that e-learning has been evaluated as an essential method of assisting university students in learning. The technology application from e-learning associated with traditional f2f teaching has brought significant learning efficiency for students at universities. According to Gilbert and Flores-Zambada (2011), using the blended model, instructors play a role of a coach, a facilitator, and a cheerleader and their teaching becomes student-centered, which is considered as the most effective approach for language education. Specifically, BL teaching has been proved to be effective for teaching listening (Aji, 2017), speaking (Kırkgöz, 2011), reading (Szymańska & Kaczmarek, 2011), and writing (Adas & Bakir, 2013). BT is an effective method that assists students to acquire more knowledge thanks to the combined benefits of both online and traditional f2f teaching. Online education encourages students to study independently and also engages them in English language to improve their language skills (Banditvilai, 2016), while classroom-based method helps them with more real-life interactions. The result of this blended situation, especially in the EFL setting, is to increase language skills along with students' self-learning abilities.

2.1.2 Learning motivation

With BT, teachers can personalise learning by adjusting their pedagogy and online environment to the motivation of the students, which helps them perform at more personal levels (Hegarty, 2011). Sucaromana's (2013) found that students had significantly higher intrinsic motivation for learning English after they were taught using blended learning. Wlodkowski (1985) defined motivation in the learning process as a force that determines the direction to be taken and the choice of a particular attitude to learning. Students' motivation increased during certain experiments in which BL was implemented. The possibility of having more types of interaction has proved to be a factor that increases motivation, creating positive attitudes towards learning and leading to higher marks being awarded (Donnelly, 2010; Woltering et al., 2009). Additional learning materials provide reinforcement to the understanding acquired in class and motivate students, improving and supporting their learning process (Lei, 2010).

2.1.3 Resource access

Internet and computers, mostly used to access the internet in studies on blended learning, offer opportunities to include more authentic, varied and different instructional materials and innovative learning activities (Pereira et al., 2007). It is, for example, easier to incorporate frequent quizzes or self-tests in a blended learning environment than in a more traditional learning environment. Moreover, the computer can automatically score the answers of the students on those quizzes or self-tests and provide the students with feedback (Cole & Robertson, 2006; Jia, Chen, Ding, & Ruan, 2012; Riffell & Sibley, 2005).

Furthermore, learners have, to some extent, control over their learning in a BT environment. They learn how to work on their own pace, choose to revisit materials and/or choose when to study (Feist et al., 2013; Salyers, 2007; Yapici & Akbayin, 2012; Yang, 2012). This control might give them the possibility to adapt the learning materials to their individual needs or preferences (Cole & Robertson, 2006; Kavadella, Tsiklakis, Vougiouklakis, & Lionarakis, 2012). Examples of such capabilities are the choice between a variety of learning materials explaining concepts (Chandra & Watters, 2012) or the choice to use e-mail and discussion fora (e.g., Cole & Robertson, 2006).

2.1.4 Interpersonal interaction

With traditional f2f teaching, it is unlikely that teachers can exchange or communicate one-by-one with all students in one lesson. Meanwhile, online learning provides an environment that allows all students to interact both synchronously and asynchronously. In language learning, regular interaction is very important. More interactions will result in better learning. Interacting, exchanging among friends and exchanging between teachers and students increases the ability to absorb lessons, to practice students' initiative. The application of BT can facilitate learner-centered interaction to happen. With asynchronous interactions, students can construct knowledge through collaboration in groups by the no limit of time and space. This increases participation among students because it permits all students an equal opportunity to respond to a topic (Birch & Volkov, 2007; Branon & Essex, 2001; Ortega, 1997). Associated with classroom-based communication, BT environment is able to augment the interaction among students and between students and teachers during EFL context.

2.1.5 Confidence enhancement

Participating in blended classes, EFL students have more opportunities to express their opinions on online forums through making comments and freely practicing exercises. Thanks to technology devices, students can feel more comfortable when not being noticed directly by everyone. Subsequently, students' confidence is increased, and they begin not to hesitate to give opinions, feedback and discussions even when facing the teachers in the classroom. Studies by Selinas et al. (1999) and McClure (2007) reveal that students' self-confidence level increases when learning in BT environment.

2.1.6 Self-directed learning

In a BT environment, teachers play the role of a facilitator to guide, suggest, and challenge students to reach their own learning goals. At the same time, students play a significant role in their own learning by employing their own self-directed learning characteristics. Thus, Moore (2005) has stated that blended learning is related to self-regulation and self-directed learning. In addition, Sriarunrasmee, Techataweewan, & Mebusaya (2015) prove that using BT in the Information Literacy classroom can enhance students' self-directed learning.

2.1.7 Critical thinking

With the assistance of blended courses, students evolve their critical thinking skills and become self-supporting thinkers (Masalela, 2009). Once working in groups, students need the ability of judging to produce coherent and high-quality documents. Mutual evaluation creates success for the students in collaborating with different people, and then enhances the competence of challenging their theories and providing a rationale for their rejoinders (Gilbert & Flores-Zambada, 2011). Through the available IT in blended language education, students can get a great amount of useful information related to English language learning to give feedback on others' assignments and correct their own works both at online classes and classrooms to develop critical thinking and collaboration abilities.

2.1.8 IT skills

When it comes to blended teaching, of course, online tools used in this format must be mentioned. Learning online means that students as well as teachers must know how to use technological devices in proper way and be proficient in using tools to support learning. Greer, Hudson and Paugh (1998) noted that peer encouragement assisted new learners in computer use and applications. Since the use of blended learning applies high usage of computers, computer competence is necessary (Abubakar & Adetimirin, 2015) to avoid failure in applying technology in education for learning effectiveness. Rovai (2003) noted that learners' computer literacy and time management are crucial in distance learning contexts and concluded that such factors are meaningful in online classes. This is supported by Selim (2007) that learners need to possess time management skills and computer skills necessary for effectiveness in e-learning and blended learning.

Thanks to the advantages mentioned above, blended teaching can be considered as the most effective teaching method together with the outstanding development of technology today.

2.2 Challenges of blended teaching

Beside the positive sides of BT, there are five challenges that students need to encounter namely difficulties in group discussion, technical problems, cheating, device dependence, and issues related to students' self-regulated learning.

2.2.1 Group discussion

Blended teaching is divided into online and on-ground delivery formats. In fact, students often have some online discussions before going to class to understand the lessons more deeply. Although working offline will not have enough materials to support the English learning process, it facilitates students to interact directly with each other at synchronous time once operating group discussions, and online forums cannot afford it. When working online, the discussions can hardly take place in a synchronous manner in terms of time due to a couple of reasons. The first is the disagreement about meeting time. The second is being in an awkward situation when talking to others through a screen. Therefore, online discussion is often in the form of asynchronous time, i.e. exchanging

ideas, finishing exercises via text messages at different times of the day, and it can be flexible according to the students' free time. Moreover, online activities cannot be substituted for human interaction and f2f communication (Sadeghi, Sedaghat & Ahmadi, 2014), and the students also could not show or feel more interesting or attracting about the discussed topics.

2.2.2 Technical problems

Once applying blended teaching method to teaching, the use of technology devices is required. Therefore, the use of information technology is also beneficial and challenging for those who use it for learning and teaching purposes, typically in English. Masalela (2009) mentioned technology infrastructure as the most frequently challenge for teachers and students in both physical and human form. As for physical infrastructure, it depends on the provision of IT equipment from the school, including personal possession of students. There will be cases where students or teachers do not have the technology equipment to work online. Therefore, it is extremely necessary to have a full range of equipment and tools to support the online English teaching and learning process. Additionally, connection breakdown is also a challenge to online English education that must be overcome. Besides, the lack of IT skill is also inevitable for both students and teachers. This is maybe a big problem if they cannot use the online tools properly due to the lack of training time.

2.2.3 Cheating

Once the online exams are taken, the percentage of correct results due to cheating may be higher with the help of ITs such as Google and related websites. In fact, there is a widespread concern about increasing levels of academic cheating in which technology and the use of the internet are blamed (Pérez-Peña, 2012; Mostrous & Kenber, 2016), and Marsh (2017).

2.2.4 Device dependence

Inadequate technological resources, or more specifically, the lack of adequate computers for use by students makes it very difficult for the proper practice of BT (Tshabalala, Ndeya-Ndereya, C., & van der Merwe, 2014). Dotong, De Castro, Dolot and Prenda (2016) illustrated some limitations of ICT integration like shortage of ICT facilities, poor maintenance of available or existing ICT resources, lack of ICT budget (e.g., Lorenzo, 2016; Tomaro, 2018; Vergel de Dios, 2016).

2.2.5 Self-regulated learning

Students are basically required to self-regulate their learning activities out of their face-to-face sessions. Though, due to flexibility and autonomy offered in blended learning, students usually organize their learning activities by devoting a relatively small portion of their time to learning tasks (e.g. revision of learning materials) and assignments right before the due date/time. In this way, learners use most of the time intended for studying in the online environment for other activities. The studies of (Chuang, Weng, & Chen,

2018; Lightner & Lightner-Laws, 2016; Çakiroglu & Öztürk, 2017) offered a more general description of self-regulation in describing 'self-regulation' as a challenge, while other studies were more specific in clearly defining the type of self-regulation challenge in the form of procrastination (AlJarrah, Thomas, & Shehab, 2018; Broadbent, 2017; Maycock, Lambert, & Bane, 2018), improper time management (Broadbent, 2017; Zacharis, 2015) and improper utilization of online peer learning (Broadbent, 2017).

3. Methodology

3.1 Participants

Participants include 30 EFL teachers (14 males, 16 females) from a faculty of foreign languages in the biggest multi-disciplinary university in the Mekong Delta region of Vietnam. Being the most prestigious and innovative one in the region, the university has always been fostering and promoting digitalization of teaching and learning in all its faculties. Therefore, the participants in the study have experienced blended teaching from their teaching practice.

3.2 Questionnaire

Rowley (2014) states that questionnaire is useful for researchers to get the frequency of beliefs, opinions, process, behaviors, experience or prediction. When the research method is quantitative, it seems perfect to use survey questionnaire for inquiry mode (Rahi, 2018a, 2018b; Zikmund, D'Alessandro, Winzar, Lowe, & Babin, 2000). For such reasons, a questionnaire was designed to collect teachers' perceptions toward the benefits and challenges of blended teaching in the current study. The items in the questionnaire have been designed basing on relevant literature of blended teaching reviewed above. The questionnaire consists of two parts in which Part 1 asks for demographic information from the participants, and Part 2 asks teachers to choose the benefits and challenges they have from their blended classrooms.

3.3 Data collection and analysis

The questionnaire was sent to 52 EFL teachers of the faculty in form of a Google Form link. Teachers answered the questionnaire in a voluntary manner. After two weeks, 30 responses were collected and analyzed using SPSS version 20.

4. Results and discussion

4.1 Benefits of blended teaching as perceived by EFL teachers

Data reveal that EFL teachers have high perceptions towards the benefits of blended teaching. Details on each benefit are presented in Table 1. Among the various benefits that BT offers, the highest percentages (93.33%) of teachers agreed that BT provided students with a diversity of learning activities. This can be explained by the fact that EFL teachers can combine between popular face to face activities with online ones to optimize students' learning opportunities. In addition, the university online platform also

provides the teachers with a lot of exercise types in English teaching from identifying true/false statements and matching items to writing short paragraphs.

Table 1: Benefits of blended teaching

| Items | No. of Agreement | Percentage |
|--|------------------|------------|
| Providing a diversity of learning activities | 28 | 93.33 |
| Developing students' self-directed learning | 26 | 86.67 |
| Developing students' IT skills. | 26 | 86.67 |
| Saving teachers' time, efforts and cost because they can reuse the e-lectures and exercises as well as set up automatic marking on the system. | 22 | 73.33 |
| Allowing students to access diverse learning resources. | 21 | 70.00 |
| Increasing interpersonal interactions. | 19 | 63.33 |
| Enhancing students' learning motivation. | 19 | 63.33 |
| Better meeting students' learning preferences and styles. | 16 | 53.33 |
| Enabling teachers to support students fully and timely. | 16 | 53.33 |
| Improving teachers' attention to individual students. | 15 | 50.00 |

The second highest percentage of agreement (86.67%) among EFL teachers include BT's capacity of (1) developing students' self-directed learning and (2) developing students' IT skills. Since students are provided with freedom to learn anywhen and anywhere they like, they have to learn how to direct their own learning. In addition, the students have to deal with the platform mostly by themselves to fulfill teachers' assignments, so their IT skills also improve. The next advantage of BT is helping teachers to save time, efforts and cost with 73.33% of agreement because they can reuse the classrooms they have had before. There are functions on these online platforms that allow teachers to duplicate their courses. Therefore, EFL teachers only need to update the parts they think necessary for the new cohorts of students. They do not need to print materials or handouts to students. Allowing students to access diverse learning resources is the next benefit of BT (70%). Indeed, online platform of BT classes provide students with not only textbooks but also video clips, websites, articles and so on, which enriches the sources of knowledge that students access. The teachers in the current study also admit that BT increases interpersonal interactions and enhances students' learning motivation (63.33%). In fact, teachers and students tend to interact more often via the online platforms by means of comments in the discussion threads or messages in the class group than in their traditional f2f classes. The other three benefits of BT agreed by more than 50% of teachers are (1) better meeting students' learning preferences and styles; (2) enabling teachers to support students fully and timely; and (3) improving teachers' attention to individual students. With BT, teachers have a chance to know more about each students' learning styles and preferences than in f2f only or only classes. Therefore, they can tailor their teaching to meet more individual needs.

4.2 Challenges of blended teaching as perceived by EFL teachers

Seven challenges perceived by EFL teachers are listed in Table 2. The most challenging issue of BT is requiring both teachers and students to have appropriate IT devices

(93.33%). When students do not have personal computers or smart phones, their learning will be more disadvantageous as compared to those who have better personal computers.

Table 2: Challenges of blended teaching

| Items | No. of Agreement | Percentage |
|--|------------------|------------|
| Requiring teachers and students to have appropriate IT devices. | 28 | 93.33 |
| Difficulties in monitoring and controlling students' cheating in testing and assessment. | 27 | 90.00 |
| Requiring the education institution, teachers and students to have stable internet connection. | 26 | 86.67 |
| Requiring students to be highly aware of their learning. | 26 | 86.67 |
| Taking time to solve technical problems in the learning process. | 24 | 80.00 |
| Requiring teachers and students to have appropriate IT skills. | 21 | 70.00 |
| Taking teachers more time to interact with students and answer their questions. | 14 | 46.67 |

The second challenge perceived by 90% of the teacher participants is the difficulties in monitoring and controlling students' cheating in testing and assessment. It is hard to know if students are actually the ones who finish the home assignment or if they ask someone else to log in to the system under their names and do their tasks. The next two challenges that receive 86.67% of agreement are BT's requirements of (1) education institution, teachers and students to have stable internet connection; and (2) students to be highly aware of their learning. Stable and strong internet connection needs to be guaranteed if one wants to implement BT. It helps prevent disappointment when students cannot download the materials their teachers send them or when students are fulfilling their online tasks. Therefore, to implement BT successfully, both teachers and students need to have good internet connection. In addition, since students have a lot of freedom outside the classroom, they need to learn how to use time wisely. They also have to make sure they finish their online tasks in time. Other two challenges of BT that receive 80% and 70% of teachers' agreement respectively are (1) taking time to solve technical problems in the learning process, and (2) requiring teachers and students to have appropriate IT skills. Problems arise in teaching, and they seem to arise more often in BT when teachers and students need to have proper IT skills to solve technical problems that may take place at times. Last but not least, teachers seem to spend much more time in BT classrooms than in their traditional f2f classrooms. With the latter, teachers interact with students and answer their questions during class time only, whereas with the former, teachers have to do double job, interacting with students both in f2f class and online platform. However, this item receives only 46.67% of agreement.

4.3 Discussion

Findings from the current study are in line with those in available literature. Various benefits of blended teaching are perceived by EFL teachers in the current study. The most noticing strengths of BT classes is providing students with a diversity of learning activities, developing students' self-directed learning, and developing students' IT skills. These are the benefits that are hard to find in traditional f2f classes. Thanks to these

benefits, students can adapt their learning materials to their needs and preferences (Robertson, 2006; Chandra & Watter, 2012; Kavadella, Tsiklakis, Vougiouklakis, & Lionarakis, 2012). They can also choose to work on their own space, revisit materials and choose learning time whenever they want to (Feist et al., 2013; Salyers, 2007; Yapici & Akbayin, 2012; Yang, 2012).

Similarly, teachers highly perceived other benefits of BT classes on saving teachers' time, efforts and cost; allowing students to access diverse learning resources; increasing interpersonal interactions; enhancing students' learning motivation; better meeting students' learning preferences and styles; enabling teachers to support students fully and timely, and improving teachers' attention to individual students. Various researchers have proved these advantages (e.g. Woltering et al., 2009; Donnelly, 2010; Kırkgöz, 2011; Szymańska & Kaczmarek, 2011; Adas & Bakir, 2013; Aji, 2017). These benefits should be noticed by teachers and school administrators so that they can design BT classes in a way that optimize student learning and skill development.

However, EFL teachers also perceived various challenges that can commonly be found in literature such as device dependence, cheating issues, internet connection, technical problems and teachers' time constraints. The findings are concurrent with those in the studies by Masalela (2009), Pérez-Peña (2012), Mostrous & Kenber (2016), Marsh (2017), Sadeghi, Sedaghat & Ahmadi (2014), AlJarrah, Thomas, and Shehab (2018), Broadbent (2017), Maycock, Lambert, & Bane (2018), and Zacharis (2015). These challenges inhibit EFL teachers from taking the most advantages of blended teaching as listed earlier. Therefore, teachers and school administrators should be more aware of their roles in creating favorable conditions for the students to learn as well as finding ways to minimize these issues.

5. Conclusion

The current study provides evidence that EFL teachers highly perceive the benefits that blended teaching offers them as well as are well-aware of the challenges that they have to encounter. Therefore, teachers and school administrators can apply different measures to maximize the advantages and minimize the disadvantages of blended teaching.

Some suggestions to successfully implement blended teaching include (1) training teachers on how to teach effectively in blended classes, (2) shifting the roles of teachers to the facilitators and monitors of students' learning process, and (3) upgrading infrastructures and providing better services to optimize blended learning environment. Further studies should be made with teachers from various backgrounds to provide richer references for stakeholders so that they can accelerate the decision making on the implementation of blended teaching in their own context.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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Bibliography

- Abubakar, D. & Adetimirin. (2015). Influence of computer literacy on post-graduates' use of e-resources in Nigerian University Libraries. *Library Philosophy and Practice*. From <http://digitalcommons.unl.edu/libphilprac/>. Retrieved 18 Aug 2015.
- Adas, D., & Bakir, A. (2013). Writing difficulties and new solutions: Blended learning as an approach to improve writing abilities. *International journal of humanities and social science*, 3(9), 254-266.
- Aji, M. P. P. (2017). English listening blended learning: The implementation of blended learning in teaching listening to university students. *Kajian Linguistik dan Sastra*, 2(1), 25-32.
- AlJarrah, A., Thomas, M. K., & Shehab, M. (2018). Investigating temporal access in a flipped classroom: Procrastination persists. *International Journal of Educational Technology in Higher Education*, 15(1), 1.
- Altay, I. F., & Altay, A. (2019). A systematic review of studies on blended learning in EFL environment. *International Journal of Curriculum and Instruction*, 11(1), 125-140.
- Banditvilai, C. (2016). Enhancing Students' Language Skills through Blended Learning. *Electronic Journal of e-Learning*, 14(3), 220-229.
- Broadbent, J. (2017). Comparing online and blended learner's self-regulated learning strategies and academic performance. *The Internet and Higher Education*, 33, 24-32.
- Çakiroglu, Ü., & Öztürk, M. (2017). Flipped classroom with problem-based activities: Exploring self-regulated learning in a programming language course. *Journal of Educational Technology & Society*, 20(1), 337.

- Chandra, V., & Watters, J. J. (2012). Re-thinking physics teaching with web-based learning. *Computers & Education*, 58(1), 631-640.
- Chuang, H. H., Weng, C. Y., & Chen, C. H. (2018). Which students benefit most from a flipped classroom approach to language learning? *British Journal of Educational Technology*, 49(1), 56–68.
- Cole, J., & Robertson, B. (2006). Using market segmentation to develop a large section, web-enhanced survey course. *Innovate: Journal of Online Education*, 2(4). Comprehensive Meta-Analysis (Version 2.2.064) [Computer software]. Englewood, HJ: Biostat]
- Donnelly, R. (2010). Harmonizing technology with interaction in blended problem-based learning. *Computers & Education*, 54, 350–359.
- Dotong, C. I., De Castro, E. L., Dolot, J. A., & Prenda, M. (2016). Barriers for educational technology integration in contemporary classroom environment. *Asia Pacific Journal of Education, Arts and Sciences*, 3(2), 13-20.
- Ellis, R. A., Steed, A. F., & Applebee, A. C. (2006). Teacher conceptions of blended learning, blended teaching and associations with approaches to design. *Australasian Journal of Educational Technology*, 22(3).
- Feist, M., Ciccarelli, M., McFerron, B. A., & Molleston, J. P. (2013). Methods and effects of a case-based pediatric gastroenterology online curriculum. *Journal of Pediatric Gastroenterology and Nutrition*, 56(2), 161-165.
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105. doi:[10.1016/j.iheduc.2004.02.001](https://doi.org/10.1016/j.iheduc.2004.02.001).
- Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*: John Wiley & Sons.
- Gilbert, J. A., & Flores-Zambada, R. (2011). Development and implementation of a “blended” teaching course environment. *MERLOT Journal of Online Learning and Teaching*, 7(2), 244-260.
- Graham, C. R. (2006). Blended learning systems. *CJ Bonk & CR Graham, The handbook of blended learning: Global perspectives, local designs*. Pfeiffer.
- Greer, L. B., Hudson, L., & Paugh, R. (1998). Student Support Services and Success Factors for Adult On-Line Learners.
- Hegarty, N. (2011). Adult learners as graduate students: underlying motivation in completing graduate programs. *The Journal of Continuing Higher Education*, 59, 146–151. doi:10.1080/07377363.2011.614883
- Jia, J., Chen, Y., Ding, Z., & Ruan, M. (2012). Effects of a vocabulary acquisition and assessment system on students' performance in a blended learning class for English subject. *Computers & Education*, 58(1), 63-76.
- Kavadella, A., Tsiklakis, K., Vougiouklakis, G., & Lionarakis, A. (2012). Evaluation of a blended learning course for teaching oral radiology to undergraduate dental students. *European Journal of Dental Education*, 16(1), e88-95.

- Kırkgöz, Y. (2011). A Blended Learning Study on Implementing Video Recorded Speaking Tasks in Task-Based Classroom Instruction. *Turkish Online Journal Of Educational Technology-TOJET*, 10(4), 1-13.
- Lameras, P., Levy, P., Paraskakis, I., & Webber, S. (2012). Blended university teaching using virtual learning environments: conceptions and approaches. *Instructional Science*, 40(1), 141-157.
- Lei, J. (2010). Quantity versus quality: a new approach to examine the relationship between technology use and student outcomes. *British Journal of Educational Technology*, 41 (3), 455–472.
- Lightner, C. A., & Lightner-Laws, C. A. (2016). A blended model: Simultaneously teaching a quantitative course traditionally, online, and remotely. *Interactive Learning Environments*, 24(1), 224–238.
- Lorenzo, A. R. (2016). Effectiveness of the Computer and Internet Literacy Project in Public High Schools of Tarlac Province, Philippines. *Turkish Online Journal of Educational Technology-TOJET*, 15(2), 38-46.
- Marsh S. (2017). More university students are using tech to cheat in exams. *The Guardian*. Available at <https://www.theguardian.com/education/2017/apr/10/more-university-students-are-using-tech-to-in-exams>. Accessed 24 March, 2022.
- Masalela, R. K. (2009). Potential benefits and complexities of blended learning in higher education: The case of the University of Botswana. *Turkish Online Journal of Distance Education (TOJDE)*, 10(1).
- Maycock, K., Lambert, J., & Bane, D. (2018). Flipping learning not just content: A 4-year action research study investigating the appropriate level of flipped learning. *Journal of Computer Assisted Learning*, 34(6), 661–672.
- Moore, M., & Kearsley, G. (2005). *Distance education: A system view*. Boston: Wadsworth.
- Mostrous A, Kenber B. (2016). Universities face student cheating crisis. *The times*. Available at <https://www.thetimes.co.uk/article/universities-face-student-cheating-crisis-9jt6ncd9vz7>. Accessed 24 March, 2022.
- Pereira, J. A., Pleguezuelos, E., Merí, A., Molina-Ros, A., Molina-Tomás, M. C., & Masdeu, C. (2007). Effectiveness of using blended learning strategies for teaching and learning human anatomy. *Medical education*, 41(2), 189-195.
- Pérez-Peña R. (2012). Studies find more students cheating, with high achievers no exception. *New York Times* Available at <http://www.nytimes.com/2012/09/08/education/studies-show-more-students-cheat-even-high-achievers.html>. Accessed 24 March, 2022.
- Porter, W. W., Graham, C. R., Spring, K. A., & Welch, K. R. (2014). Blended learning in higher education: Institutional adoption and implementation. *Computers & Education*, 75, 185-195.
- Rahi, S. (2016a). Impact of Customer Perceived Value and Customers Perception of Public Relation on Customer Loyalty with Moderating Role of Brand Image. *The Journal of Internet Banking and Commerce*, 21(2);

- Rahi, S. (2016b). Impact of Customer Value, Public Relations Perception and Brand Image on Customer Loyalty in Services Sector of Pakistan. *Arabian J Bus Manag Review* S2, 004.
- Riffell, S., & Merrill, J. (2005). Do hybrid lecture formats influence laboratory performance in large, pre-professional biology courses? *Journal of Natural Resources and Life Sciences Education*, 34, 96-100.
- Roseth, C., Akcaoglu, M., & Zellner, A. (2013). Blending synchronous face-to-face and computer-supported cooperative learning in a hybrid doctoral seminar. *TechTrends*, 57(3), 54-59.
- Rowley, J. (2014). Designing and using research questionnaires. *Management Research Review*, 37(3), 308-330.
- Rovai, A. P. (2003). In search of higher persistence rates in distance education online programs. *Computers & Education*, 6(1), 1-16.
- Sadeghi, R., Sedaghat, M. M., & Ahmadi, F. S. (2014). Comparison of the effect of lecture and blended teaching methods on students' learning and satisfaction. *Journal of Advances in Medical Education & Professionalism*, 2(4), 146.
- Salyers, V. L. (2007). Teaching psychomotor skills to beginning nursing students using a Web-enhanced approach: A quasi-experimental study. *International Journal of Nursing Education Scholarship (IJNES)*, 4(1), Article11.
- Selim, H. M. (2007). Critical success factors for e-learning acceptance: Confirmatory factor models. *Computers & Education*, 49(2), 396-413.
- Spanjers, I. A., Könings, K. D., Leppink, J., Verstegen, D. M., de Jong, N., Czabanowska, K., & Van Merriënboer, J. J. (2015). The promised land of blended learning: quizzes as a moderator. *Educational Research Review*. doi:[10.1016/j.edurev.2015.05.001](https://doi.org/10.1016/j.edurev.2015.05.001).
- Sriarunrasme, J., Techataweewan, W., & Mebusaya, R. P. (2015). Blended learning supporting self-directed learning and communication skills of Srinakharinwirot University's first year students. *Procedia-Social and Behavioral Sciences*, 197, 1564-1569.
- Sucaromana, U. (2013). The effects of blended learning on the intrinsic motivation of Thai EFL students. *English Language Teaching*, 6 (5), 141-147. Doi: 10.5539/elt.v6n5p141.
- Szymańska, A., & Kaczmarek, A. W. (2011). Reading efficiency in blended learning context. *Teaching English with technology*, 11(2), 29-42.
- Tomaro, Q. P. V. (2018). ICT integration in the educational system of Philippines. *Journal of Governance and Public Policy*, 5(3), 259-282.
- Tshabalala, M., Ndeya-Ndereya, C., & van der Merwe, T. (2014). Implementing Blended Learning at a Developing University: Obstacles in the Way. *Electronic Journal of E-learning*, 12(1), 101-110.
- Vergel de Dios, B. (2016). Building and sustaining national ICT/education agencies: Lessons from the Philippines. Available at <https://elibrary.worldbank.org/doi/abs/10.1596/26262>. Accessed 24 March, 2022.
- Wlodkowski, R. J. (1985). *Enhancing adult motivation to learn*. San Francisco: Jossey-Bass.

- Woltering, V., Herrler, A., Spitzer, K., & Spreckelsen, C. (2009). Blended learning positively affects students' satisfaction and the role of the tutor in the problem-based learning process: results of a mixed-method evaluation. *Advances in Health Science Education, 14*, 725–738.
- Yang, Y.-F. (2012). Blended learning for college students with English reading difficulties. *Computer Assisted Language Learning, 25*(5), 393-410.
- Yapici, İ. Ü., & Akbayin, H. (2012). The effect of blended learning model on high school students' biology achievement and on their attitudes towards the internet. *TOJET: The Turkish Online Journal of Educational Technology, 11*(2), 228-237.
- Zacharis, N. Z. (2015). A multivariate approach to predicting student outcomes in web-enabled blended learning courses. *The Internet and Higher Education, 27*, 44–53.
- Zikmund, W. G., D'Alessandro, S., Winzar, H., Lowe, B., & Babin, B. (2014). *Marketing research*. Sydney: Cengage Learning.

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