



**FACTORS AFFECTING LEARNERS' PERFORMANCE ON BLENDED LEARNING:
A LITERATURE REVIEW PAPER**

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ABSTRACT

As the world progress with its technology, different circumstances and ideas have emerged that put into practice. Every year there is a development that will help to improve the quality of education. Education in 21st century requires a new level of technologies as innovation emerge. One of them is the use of blended learning. Blended Learning said to enable the learners to learn better and helps them succeed but others contradicts as motivation, socio-economic background, internet infrastructure, teachers role affects their learning performance. This study analyzes the factors that affect the learners' performance associated on blended learning education gathered from different research paper, article and journals. Related studies reveal external factors and internal factors that affect the learners' performance on blended learning.

**Keywords: Blended Learning, 21st century education, Internal Factors,
External Factors, Teachers Role, Learning Environment**

INTRODUCTION

In this 21st century education, new innovation is being used worldwide and emerges in new learning environment is known as Blended Learning. Gradually, some learners experience hard time to finish their blended learning courses online. It is important to understand if the connectivity has something to do about it, the model itself, the learners themselves or even the teacher. With this in mind, changes on how the institutions and implementation can be taking place. Blended Learning has become the most special model of learning in many developed countries due to a natural consequence of using the internet worldwide and broadening the access to an education according to F.L. Gaol, F. Hutagulang (2020). Blended Learning was preferred because of the flexibility, accessibility and opportunities to meet in face to face (F2F) encounters according to S. Keskin & H. Yurdugü, (2020). In the study of B. Anthony, A. Kamaludin, A. Romli, A.F.M., D.N.A.E. Phon, A. Abdullah & G.L. Ming (2020) stated that Blended Learning incorporates the face to face teaching with web-based learning. Accordingly, it practices face to face, activities, information, resources, feedback for students and technology. Blended Learning engage a combination of online-mediated and face to face (F2F) instruction to help instructor attain pedagogical goals in training learners to produce an algorithmic and constructive rational skills, aids to enhance teaching qualities and achieve social orders.

According to S. M. Azizi, N. Roozbahani, & A. Khatony (2020) stated that the agreement of using Blended Learning plays a significant role in its implementation. Education by this method employs teaching being taken either by classroom or online. R. Alebaikan & S. Troudi (2010) defines Blended Learning as an integration of online activities and traditional face to face class activities. In Blended Learning, it provides a comprehensive view of continuous process of learning, it could be Blended Offline and Online Learning, Blended Self-Paced, Collaborative Learning, Blending Structure and

Unstructured Learning (H. Singh, 2003). Blended Learning combines two modes of instruction, online and face to face in different points of time noted by M. Barbour, R. Brown, L.H. Waters, R. Hoey, J.L. Kennedy & T. Trimm (2011). But researcher, academic and scientist referred to Blended Learning as hybrid learning, mixed learning and used very differently cited by A.O Mahmood, A.K. & Abdelmaboud (2018). As noted by K. Siripongdee, P. Pimdee & S. Tuntiwongwanich (2020), in this Covid-19 Pandemic, the use of Blended Learning with IoT or Internet of Things which referred to a network of information and use this information with minimum human participation is the appropriate New Normal solution for all educational stakeholders as Blended Learning can blend with different philosophical orientation such as Constructivism and Behaviorism.

DISCUSSIONS

History of Blended Learning according to the study of C.J. Bonk & C.R. Graham (2012) was introduced in 1969 as a basic component of the teaching system of the world principals distance teaching institution, the United Kingdom Open University. It was Michael G. Moore who published the first statement about distance education 1972 while Jay Cross who coined the terms e-learning and work flow learning.

Challenges of Blended Learning

In the study of R. Alebaikan & S. Troudi (2010) stated that in Blended Learning, face to face conducted in an instructional led classroom while the online learning could be asynchronous or synchronous. In online synchronous, task like online conference and students conferencing can happen while in asynchronous learning, it was self-paced, learner-centered and offered learning materials. Different challenges occurred such as the culture and the blended learning environment, finding the right decision and it demands on time. The use of technology in education demands an extension of comfort level, the level of learner's self-discipline and their responsiveness, the society's norm and values as well as the organizational and managerial support. Blended Learning was being implemented in developed and developing countries across the world and it shows

great improvement in higher education. Among the countries that use Blended Learning are USA, Australia, United Kingdom, Turkey, Canada, Indonesia, and Spain. Also, Norway, Dubai, UAE, India, Singapore, Saudi Arabia, Taiwan. Greece, Germany, Philippines, South Korea and the Netherlands, Thailand, Vietnam, Belgium, Bulgaria, China, Poland, Israel, Morocco, Columbia, Sri Lanka and Ghana have Blended Learning as cited by B. Anthony, A. Kamaludin, & A. Romli (2020) in their study. One of the problems of using Blended Learning is the use of Learning Management System which sometimes goes down and cannot be accessed by the students (C. Sriwichai, 2020).

Internal factors of learners' performance on Blended Learning

According to I. Georgakopoulos, M. Chalikias, V. Zakopoulos & E. Kossieri, (2020) stated their study that there are positive attitude towards using blended courses and its affiliated with learning environment such as a perceived enjoyment, perceived usefulness, system functionality, social interaction, content features and performance expectation. Additionally, learner's social and psychological characteristic affects it also like their intrinsic characteristic which includes educational background, learner's social status, demographic characteristics, and learner's level of internal self-motivation, learner's attitude, and learners learning influence. C. Sriwichai (2020) specified that learner's readiness also affects their learning as there is face to face classroom learning and online-based learning experience with different online interaction, the use of technology, learners learning flexibility and their study management. Accordingly, learner's readiness to handle face to face classroom learning and online-based learning is correlated with their learning outcome. He also reiterated that in Blended Learning, learners need to be self-disciplined and self-motivated.

It is same with the study of S. M. Azizi, N. Roozbahani & A. Khatony (2020), different factors such as attitudes towards online learning; study management, online interaction and learning flexibility were positively complementary with the learners' readiness in using Blended Learning. Accordingly, learning environment should promote independence in learning, participation, interaction, self-assessment and cooperation.

The feeling of isolation or lack of interaction among learners using an online environment represents an obstacle factor that affects the attitude of the learners to use Learning Management System. Learners in an online learning environment lack opportunities to experience both structured dialogue and the sense of community (A.O. Ismail, A.K. Mahmood, & A. Abdelmaboud, 2018). In the study of N. Alkis & T.T. Temizel (2018) revealed that the academic motivation is a one of the important factors predictors of academic success and has a significant impact on learners behavior and learning styles.

External factors of Blended Learning affecting learners' performance

In the study of E. Chung, N. M. Noor & V.N. Matthew (2020) stated there are challenges faced by learners while engaged in online learning, the internet infrastructure, poor connectivity, limited broadband data which they can afford, the lack of technical skills, slow personal computer or either no personal computer and too many online activity. Socio-cultural attributes plays a role in using Blended Learning because learners have different socio-economic background. Other factor also includes compatibility and resistance to change as found by S. M. Azizi, N. Roozbahani & A. Khatony (2020) in their study. It creates Digital Divide among the learners cited by C.J. Bonk & C.R. Graham (2012) as the approach favors only the advantaged. Based on the experiment study of D.N. Lu, H.Q. Le & T.H. Vu (2020), infrastructure appeared to be the greatest factor on the e-learning system as the different features such as hardware devices, Learning Management System, information system storage and internet quality affects it. The socio-economic profile of the learners in some geographically areas affect the e-learning as mentioned in the study of B.E. Aguinaldo (2013).

According to the survey made by M. Barbour, R. Brown, L.H. Waters, R. Hoey, J.L. Hunt, K. Kennedy & T. Trimm (2011), Blended and online choices are most available to learners in urban areas from developed countries. Globally located learners who lived in urban settings have the highest level of access to blended or online classroom. Also, this is the most accepted by the learners with circumstances like the learners athletes, learners with chronic illness and disease, home bound or severely disabled. It is also

mentioned that the lack of government funding or support, or policies to promote this Blended Learning or online learning affects the implementation and varies greatly not only from country to country, but also between region within those countries. Parental involvement and family education affects learner's achievement as some parent's works as noted by A. O. Ismail, A.K. Mahmood & A. Abdelmaboud (2018).

In the study of M.J. Kintu, C. Zhu & Kagambe (2017) found out that family support or increased workload teaching leads to learner's dropout as well as little time to study as being shown in the research that the failure of learners has something to do with it. They added that family and peer support for learners is important for success in online and face to face learning. Peer support is required by learner who has no or little knowledge of technology, especially in using computer. One of the well-known Learning Management System that is being used was the Moodle or the Modular Object Oriented Dynamic Learning Environment and was developed from a social constructivist perspective. The use of LMS guarantee the flow of information to and from learners in a secure and efficient means, LMS serves as complete rather than a substitute to classroom teaching and appreciated (E. Goyal & S. Tambe, 2015). And by using this different Learning Management System, it is revealed in the study of M.J. Kintu & C. Zhu (2016) that learner characteristics and background are worth considering in designing Blended Learning environment as different students have different learning styles and capabilities. It is also affirmed in the study of W.S. Chen & A.Y.T. Yao (2016) that learner's gives importance on the design dimension of a Blended Learning environment thus institutions should give more emphasize on this.

The Role of Teacher as Factor affecting Blended Learning

Teacher participation is central in the planning and orchestration of the use of the digital technologies according to J. Silverman, & V. Hoyos (2016). The Face to face interaction has the advantage of interpersonal communication where facial expression is the effective communication and obtains direct response and learners are in activities to completion while the web-based model was presented in a digital-era. But not all

teachers are open to this change, there are some who resist the change and resist the use of technology as noted in the study of P. B. Arinto (2016). With the ongoing pandemic that we are experiencing right now, the teacher's role as a facilitator of Blended Learning is highly important. In the study of R. Bordoloi, P. Das & K. Das (2021) mentioned that the 21st century educator had to undergo digital information overnight to support their learners learning remotely and oversee the technology as Blended Learning requires systematic planning. It is worth noting in the study of S. Sophonhiranrak, P. Suwannattachote & S. Ngudgratoke (2015) that instructors need to analyze learner's characteristics, learning objectives and learning environments while using Blended Learning. As instructors, based on the study of D. H. Lim & M. L Morris (2009) they are responsible in planning, designing, delivery and evaluation of a blended instruction as they need to sustain the learners learning interest and promote learning.

Effects of Using Blended Learning

As revealed in the study of E. Chung, N. Noor, & V.N. Matthew (2020) Blended Learning promotes self-directed learning for learners. Blended learning appears to be better than online learning as cited by W. Wuryaningsih, D. Susilastuti, M. Darwin, & A. Pierewan (2019). It is also mentioned in the study of C. J. Bonk & C. R. Graha, (2012) that Blended Learning increased cost-effectiveness as the emergence of geographically dispersal work environment. Additionally, it was cited by I.Y. Kazu & M. Dermikol (2014) those learners who have studied in Blended Learning environment are more academically successful than those who have studied in traditional learning environment. With the advent of mobile phones, using Blended Learning is much accessible (Z. Hu, H. Yuan & Q. Liu, 2021). According to the study of R. Owston, D. N. York, T. Malhota & J. Sitthiworachat (2020), learners perform better who is in Blended Learning rather than traditional classroom approach as learners interact online with their peers and instructors than passively viewing online. The use of Blended Learning improves the communication and interaction between learners and teachers, it seems to be the most important factor of learners satisfaction and learners' performance cited by J.Zegiri, V. Kareva &

S. Alija (2020) in their study. Blended Learning also provides access to practical communities and opportunities with teachers with tight schedule. (W. Wuryaningsih, D. Susilastuti, M. Darwin & A. Pierewan, 2019).

SUMMARY

This paper demonstrated and analyzed the challenges of Blended Learning, different factors affecting learner's performance on blended learning such as the internal factors, external factors, as well as the teacher's role and the effects of using Blended Learning. Relative studies revealed challenges of using Blended Learning as to what kind of Learning Management System need to be used, the level of technology, the culture and learning environment. The study also tells the internal factors such as learner's intrinsic motivation, learner's attitude and readiness, their social and psychological characteristics, study management, self-motivation, learning flexibility, the feeling of isolation affects the learners learning outcome. While on the other hand, external factors showed that the socio-economic profile, infrastructure, poor connectivity, limited broadband, lack of government support, lack of technical skills of the learners, their compatibility and resistance to change creates Digital Divide and only features the advantaged. The use of Learning Management System, its design, content, the hardware device and its system storage capacity affects the efficiency of using Blended Learning.

Being the facilitator of this new technology, teacher's role is greatly important as they are primarily responsible in planning, developing, designing, delivery and assessing their learners performance thus they also need to analyze the learner characteristics and sustain their enthusiasm and learning. But some teachers are not open to the development; some oppose the use of technology as there are skills needs to be used while implementing Blended Learning. Different advantages or effects of using Blended Learning mentioned in the study such as that it promotes self-directed learning among learners, increased cost effectiveness, improves communication faster as it provides access to those geographically challenged work environment.

CONCLUSION

The studies made by the researchers concluded there are factors affecting learner's performance on Blended Learning. There are internal factors, external factors, and the teacher's role greatly affects learner's progress and achievement on Blended Learning. One must be aware of learner's internal factors, so they can work on their weaknesses while external factors are inevitable, support is much needed from learner's families and institutions. On the other hand, the teacher's role is crucial as they are the facilitator in implementing Blended Learning thus they form part of the learning environment of the learners. Several studies revealed that these factors vary from different learners across the world as to different Learning Management System or resources available they are using. It is recommended to understand the learner's profile and socio-economic background should be taken into consideration whether they come from developed or developing countries. Through this, 21st century education using Blended Learning would be greatly appreciated and improves the productivity, both of the learners and educators. In these challenging times of the Covid19 Pandemic, it is highly recommended to use Blended Learning to safeguard the safety of everyone.

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