EFFECTIVENESS OF DISTANCE LEARNING TO THE PERFORMANCE OF LEARNERS: A LITERATURE REVIEW

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ABSTRACT

This paper aimed to review various articles that explain the effectiveness of distance learning to the performance of learners. Its goal is to give knowledge regarding distance learning and how it works in our new setting specifically on limited face to face classes. Precisely it aims to distinguish the research gap pertaining to the effectiveness of distance learning on the learners. The researcher conducted this study to find out the variables on distance learning, which lead to an effective mode of learning in times of COVID-19 pandemic.

Keywords: distance learning, effectiveness, learner, performance

INTRODUCTION

Learners in the perspective of this article are part of an educational institution and play a vital role as an active participant in the process of lifelong learning. According to Savery and Duffy (in press) learners should have a sense of possession of the learning goals. They have characteristics such as willingness and capability to obtain instructional messages and lastly another significant variable to an effective learning for students is their specific preference of mode of learning. Also, in guided practice, the presentations of the teacher will be effective if they are better known in their instructional design and delivery procedure. Preparation and modifying traditional teaching strategy is also considered to have effective distance learning and lastly they have enough training to the technology they needed to use.

Distance learning is one of the widespread events that have a terrific increase of usage on information and communication technologies (ICT) in educational institutions. Now, online modalities of instructions are considered to be essential and continuously getting enhanced traction in educational institutions. The latest ICT gives a huge chance for an efficient way of communication. It emphasizes that virtual learning setting communication and interaction can result in student-centered. The educator should inspire distance students, monitor them in the use of resources and establish interaction among individual members of online courses. As well as securing the dedication of its faculty to instructional strategy and redemption is the central for producing effective virtual surroundings. Moreover, the qualifications of the faculty member should be a fundamental element in producing high quality distance learning programs, adapting usual teaching methods to accumulate an effective result.

As of now, COVID-19 pandemic is still lingering around the world. It affects and challenges the education system of education so Ananga (2020) says applicable strategies must be engaged to maintain the learners in teaching and learning. Hence, distance learning is not all about the content and teaching methods which is carried by the use of the internet but also within broadcast and interactive television, audio, and videotape.

Markova, Glazkova and Zaborova (2016) hold the view that distance learning is proposed for those learners who are focused and have self-control. Therefore, it can build up the student to work on their own. Additionally, it is evident in the study of the supporters of distance learning that it can be more proficient than the traditional face-to-face pattern of learning. Various proof has been granted that quantity and quality elevate on the general student learning awareness and contentment. Hermawan (2021) highlighted the students' perception of distance learning as an answer solution during the COVID-19 pandemic.

Reviewing various articles will help to identify the gaps in existing literature related to the effectiveness of distance learning to the performance of learners. Moreover, this study will provide additional knowledge and information for other studies.

RESULTS/DISCUSSIONS

Distance Learning

In modern years, the power of cyberspace and progressive technology promote an online educational system that leads to transforming the aspect of education. E-learning, online learning, online collaborative learning, virtual learning, and web based learning and technology-mediated learning are all terms that are used alternately with distance learning. Additionally, distance learning comes out that this mode of learning can be a substitute or supplement to traditional mode of teaching and learning. Importantly, that distance learning takes place when teacher and learner do not encounter directly in similar physical areas. Undoubtedly, the study of Ahmad (2011) revealed that distance learning and face-to-face learning have no difference in terms of effectiveness for students. Moreover, the student-teacher interaction, performance of the teacher and lastly the course evaluation are the factors that affect the student satisfaction. In addition to this, the study says that the role of teacher is the key to successful distance learning.

Aslan, Silvia, Nugroho, Ramli and Rusiadi (2020) concluded that the role of the teacher and support are important during the process of learning from home. Base on their valid and reliable findings, among other things, spatial learning practices, retrospective approaches, practical elaborative learning, collaborative learning, interleaving approaches, concrete commitment, multiple coding skills, resource helpful, digital competence, and celebrating every success are all alternative strategies for teachers to help students lifelong learning during COVID-19 crisis.

Grabinski, Kedzior, Krasodomska, and Herdan (2020) provide proof that the perspective of the teacher on distance learning is more effective if the teaching process is enriched and more challenging compared to traditional mode of teaching.

Based on the study of Bashitialshaaer, Alhendawi and Lassoued (2021) many different researchers used distance education in exchange for distance learning. The form of instructional media changed over time, it was from printed materials to instructional television and the present is through the use of interactive technologies. In the continent of Europe, the first form of distance learning took place within correspondence courses as instructional radio and television became trendy. So, up to the middle of the century it was an accepted custom. On the systems of education, it's stated that in distance learning the technology was considered a fundamental part. In order to have a fruitful program, the key is to focus on the instructional needs of the learners instead of the technology. Moreover, the most vital elements for distance learning to deem successful are the following: compassionate, worried teacher who is self-assured, proficient, comfortable with the equipment, creative in using media and continues a high level of interactivity with the learners.

According to Algahtani (2011) online mode is totally explained based on synchronous and asynchronous learning that is defended on the time of interaction of teachers and students. First is synchronous, online classes are conducted real time and maybe done through video conference, messaging chat or audio chat using an online tool. On the other hand, asynchronous learning is the interaction among teachers and students does not take place in real time and there is no face-to-face interaction even online. Students are just provided with content and tasks that they are needed to accomplish within the time frame through the use of learning platforms like Learning Management System (LMS). Based on Adzharuddin and Ling (2013) Learning Management Systems is an online portal that helps the teacher and learners to communicate with each other and also provides a chance for course materials and activities to be easily distributed. Due to the situation of the 21st century learners, flexibility and suitability are the fundamental learning needs to be considered without reducing its quality. One way to attain the flexibility in learning is through the use of online learning tools that deal with the different learning needs of the student.

The study of Fedynich, Bradley and Bradley (2015) states that the student satisfaction on interaction was lowermost, while based on the data one of the most factors that affect the student satisfaction it's the instructor because he or she is accountable for various facilitating and delivery processes. Saba, Mamman and Nwabufo (2017) showed that the major factor affecting the effectiveness of Distance Learning in the preparation of teachers is the inadequate presentation of information in the course materials.

In addition, Nisafani, Arnoldi, and Muqtadiroh published a study on the Factors Affecting Teacher's Intention to Use E-Learning. The study proved that e-learning is easy to use when the teacher's confidence is higher. This fact suggests that e-learning becomes less useful when the teachers are more experienced in acquiring and developing electronics. Based on the interview of the researchers to the teacher, it was revealed that traditional teaching methods are more helpful compared to e-learning. Furthermore Mfoafo, Akrofi, Edonu, and Dowuona (2020) pointed out that the socio- economic status of the parents greatly affects their potential to assist in the learning of their children. Many researchers suggest that distance learning is very useful because it helps the student and teacher to decrease the travel from their residence to school.

In a published paper by Utomo, Sudaryanto and Saddhono (2020) it was found out that tools and implementation strategies are very essential for distance learning especially the Google Classroom, WhatsApp and Zoom are the best platforms that can be utilized together. Thus, easy internet access does not run without any tools to be used in distance learning. Osuji and Nwoke (2019) through the use of e-learning communication enhance connections that maintain learning.

The Role of Technology in Distance Learning

Technology serves an essential part to the delivery of distance education. On the other hand the effectiveness is determined by the instructional result and not by the technology of delivery. Definitely emphasizing the needs of the learners, content, and limiting the teacher rather than choosing a delivery system is the fundamental component of effective distance education (Yousuf, 2007).

The arrival of COVID-19 virus ravaged the sector of the global economy especially the educational system due to social distancing and followed by lockdown. In the 21st century, the vital element of education is technology. For the effectiveness of e-learning some tools for instruction are needed to utilize including the flexibility, competence and others (Olaitan, 2020).

On the case study of Rapiq, Hussain and Abbas (2020) in Pakistan, the current environment especially in educational field are already affect by distance learning and forthright invite for the learners in developing countries to establish the pace and improvement of the country in variety of fields of life and with the recent and altering world. For improved academic performance the technology function is to give attention to instructional matters as it depends on the quality of enhancing nature and viewpoint of education. Based on the result of their study, the attitude of the student on distance learning is positive as supported by both quantitative and qualitative analysis. This means that the students accept the use of technology particularly in distance learning at a higher educational level.

The development of technology i.e. electric computers started in the late 1950's. Besides in the late 1960's and early 1980's, the internet was already developing with various procedures.

Nowadays, online education through the help of mobile wireless technologies like mobile or smart phones, tablets and laptops are also needed to execute the process. Cook and Sonnenberg (2014) discussed that worldwide communications have continued to speed up. In 1989 the World Wide Web was officially accredited as a software program made by Tim Berners-Lee. Next the email was created as a communication tool. Third is instant messaging. Fourth was Voice over Internet Protocol (VoIP). Fifth was interactive video conferencing. In 2003, Skype was developed by KaZaa. Seventh was mobile phones and lastly were social networking sites such as facebook and twitter. Therefore, in education the right utilization of cyberspace tools may result in creating new experiences for educators and learners.

Pukkaew (2013) concluded that modern social media networking sites play a relevant role in communication for the teacher and student. Gilani, Zaman and Ambreen (2012) concluded that the use of Web 2.0 technologies enhance the learning and enrich the academic performance of the student.

Performance of the Learner on Distance Learning

In the period of emerging technologies, to evaluate online learning the student satisfaction is the vital part since it assesses the learning effectiveness which is the reflection of the course quality. Also interaction is the most relevant factor. The three types of interaction are learner-learner, learner-instructor and learner-content. Thus the best predictor of satisfaction among the three is the learner-instructor but the type of self-reported personality found out that it significantly affects the three types of interaction (Weidlich and Bastiaens, 2018).

In the summary of the study of Cesari, Galgani, Gemignani and Menicucci (2021) tells that the role of social interaction throughout online learning comprise central variable to attain best learning result and it is not important fringe part in the complicated process. It is evident in the study conducted by Ameerbakhsh (2018) found out that well-built e-learning systems create a more sensible, easy, practical engaging and challenging to the process of learning of the learners. Additionally, the use of interactive simulation can enhance the classroom environment.

Dada and Alkali (2019) revealed that asynchronous and synchronous modes of learning on the students' performance positively influence the study habits of learners. It means that there is an improvement in the learners' academic performance.

Rios, Elliott and Mandernach (n.d) indicates that student satisfaction with the use of technology is the ultimate that promotes actual interactions and functional engagement. Furthermore, technology self-efficacy, personality and engagement are the numerous student

characteristics significant to online learning. The relevant contributor to student satisfaction is engagement.

Bolliger and Martindale (2004) conducted a study on the key factors determining student satisfaction in online courses. Based on the study they conducted, when it comes to student satisfaction in online setting the instructor is the most relevant factor. Further, technology and interactivity are also included in the factors that affect student satisfaction. Clearly, student satisfaction is one important variable to determine the result of online teaching and learning either success or failure.

Stansfield, McLellan and Connolly (2004) examined the findings of four modules from the programme to evaluate the general performance of the learners taking the module online and face-to-face mode. It showed that students enjoyed online learning compared to traditional mode of learning. Aside from this Titsworth, Allen, Mabry, Mattrey, Bourhis, Burrell (2004) findings suggest that distance learning produces effective learning when regards to the grade of the learners in a particular course.

It is evident that in the study conducted by Wrenn (2015) who found out that based on student academic achievement results, virtual classrooms were effective. Tucker (2000) stated that distance education is an effective alternative to traditional mode of learning. The factor that contributed to its effectiveness was the students' preferred learning styles. Nalini, Deepak, Neelamma¸ Sahana, and Jayashree (2020) observed that online learning was better than conventional learning. It supports that it was student centered.

SYNTHESIS

Many researchers perceive that distance learning has positive outcomes on the learning of students. The role and strategy of the teacher is one of the fundamental factors and also the utilization of the appropriate technology. Additionally, the student's satisfaction and characteristic is also considered to be the variable that determines the result of online learning. These studies confirmed that online tools are very useful to be utilized by teachers and students to communicate with each other. In other words, distance learning as a mode of education is one of the solutions to continue the learning of students in time of COVID-19 pandemic.

LITERATURE CITED

Adharuddin, N. A., & Ling, L. H. (2013). Learning Management System (LMS) among University Students:Does It Work? *International Journal of e-Education, E-Business, e-Management and e-Learning.* *3*(3), 248-252. https://doi.org/10.7763/IJEEEE.2013.V3.233

Ahmad, A.A.I. (2011). Key Factors for Determining Students' Satisfaction in Distance Learning Courses: A Study of Allama Iqbal Open University. *Contemporary Educational Technology 2*(2), 118-134. https://www.cedtech.net/download/key-factors-for-determining-student-satisfaction-in-distance-learning-courses-a-study-of-allama-6047.pdf

Algahtani, A.F. (2011). Evaluating the *effectiveness of the e-learning experience in some universities in Saudi Arabia from male students' perceptions*. Durham theses, Durham University. https://etheses.dur.ac.uk/3215/1/Abdullah'sThesis.pdf

Ameerbakhsh, O. (2018). Towards the Use of Interactive Simulation for Effective e-Learning in University Classroom Environment. *University of Stirling*. https://dspace.stir.ac.uk/bitstream/1893/27939/2/Omair%27s%20Thesis%20after%20correction.pdf

Ananga, P. (2020). Pedagogical considerations of e-learning in education for development in the face of COVID-19. *International Journal of Technology in Education and Science (IJTES), 4*(4), 310-321. https://files.eric.ed.gov/fulltext/EJ1271209.pdf

Aslan, A., Silvia, S., Nugroho, B.S., Ramli, M., & Rusiadi, R. (2020). Teacher's Leadership Teaching Strategy Supporting Student Learning during the COVID-19 Disruption. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam, 5* (3). https://doi.org/10.31538/ndh.v5i3.984

Bashitialshaaer, R., Alhendawi, M., & Lassoued, Z. (2021). Obstacle Comparisons to Achieving Distance Learning and Applying Electronic Exams during COVID-19 Pandemic. *Symmetry, 13*, 99. https://doi.org/10.3390/sym13010099

Bolliger, D.U. & Martindale, T. (2004). Key Factors for Determining Student Satisfaction in Online Courses. *International Journal on E-Learning*. https://www.learntechlib.org/primary/p/2226/article_2226.pdf

Cesari, V., Galgani, B., Gemignani, A., & Menicucci, D. (2021) Enhancing Qualities of Consciousness during Online Learning via Multisensory Interactions. *Behav. Sci.* **2021**, *11*, 57. https://doi.org/10.3390/bs11050057

Cook, C.W., & Sonnenberg, C. (2014) Technology and Online Education: Models for Change. *Contemporary Issues in Education Research, 7*(3). https://www.clutejournals.com/index.php/CIER/article/download/8638/8635

Dada, E.G. & Alkali, A.H (2019). An Investigation into the Effectiveness of Asynchronous and Synchronous E-Learning Mode on Student's Academic Performance in National Open University (NOUN), Maiduguri Centre. *I.J. Modern Education and Computer Science, 5*, 54-64. https://doi.org/10.5815/ijmecs.2019.05.06

Fedynich, L., Bradley, K.S., & Bradley, J. (2015) Graduate students' perceptions of online learning. *Research in Higher Education Journal, 27*. https://files.eric.ed.gov/fulltext/EJ1056187.pdf

Gilani, S.Y.A., Zaman, T.U., & Ambreen, M. (2012). Effectiveness of Web 2.0 Technologies in Distance Learning. *Pakistan Journal of Education, 29*(1&2). https://www.proquest.com/scholarly-journals/effectiveness-web-2-0-technologies-distance/docview/2365236941/se-2?accountid=201395

Grabinski, K., Kedzior, M., Krasodomska, J., & Herdan, A. (2020). Embedding E-Learning in Accounting Modules: The Educators' Perspective. *Education Sciences*, *10,* 97. https://doi.org/10.3390/educsci10040097

Hermawan, D. (2021). The Rise of E-Learning in COVID-19 Pandemic in Private University: Challenges and Opportunities. *IJORER: International Journal of Recent Educational Research, 2*(1), 86-95.
https://journal.ia-education.com/index.php/ijorer/article/download/77/36

Mfoafo, N.K.A., Akrofi, O., Edonu, K.K., & Dowuona, E.N (2020). Investigating the E-Learning Readiness of Ghanaian Parents during Covid-19. *European Journal of Education Studies, 7*(10).
https://oapub.org/edu/index.php/ejes/article/download/3275/5911

Nalini, G.K., Deepak, P., Neelamma, P., Sahana, G.N., Jayashree, V.N. (2020). Effectiveness of Digital Learning versus Traditional Learning among Undergraduate Students. *National Journal of Physiology, Pharmacy and Pharmacology, 10* (1). https://www.proquest.com/scholarly-journals/effectiveness-digital-learning-versus-traditional/docview/2345783697/se-2?accountid=201395

Nisafani, A.S., Arnoldi, R., & Muqtadiroh, F.A (2017). Factors Affecting Teacher's Intention to use E-Learning. *Atlantis Press, 66*, 81-87. https://www.researchgate.net/profile/Feby-Artwodini-Muqtadiroh/publication/318995026_Factors_Affecting Teacher's_Intention_to_use_E-Learning/links/5a3aedfd458515a77aa8caa1/Factors-Affecting-Teachers-Intention-to-use-E-Learning.pdf

Olaitan, B.S (2020). Challenges of Integrating Mobile Technologies into Teaching and Learning Process in Nigerian Primary Schools during COVID-19 Pandemic. *Trailblazer International Journal of Educational Research, 1*(1). https://tijer.oyscoel.com/index.php/tijer/article/download/10/10

Osuji, C.U & Nwoke, B. I (2019). Pre-Service Teacher's Perceptions Towards Role of E-Learning in Science Education in Teacher Training Institutions. *International Journal of Science and Technology, Ethiopia, 8*(1), 40-49. http://dx.doi.org/10.4314/stech.v8il.4

Pukkaew, C. (2013). Assessment of the Effectiveness of Internet-Based Distance Learning through the VClass e- Education Platform. *The International Review of Research in Open and Distance Learning, 14* (4), 255-276. https:// www.proquest.com/scholarly-journals/assessment-effectiveness-internet-based-distance/docview/1634343518/se-2?accountid=201395

Rafiq, F., Hussain, S., & Abbas, Q. (2020). Analyzing Students' Attitude towards E-learning: A Case Study in Higher Education in Pakistan. *Pakistan Social Sciences Review (PSSR), 4*(1), 367-380. https://www.researchgate.net/profile/Qaisar-Abbas/publication/340741632_Analyzing_Students'_Attitude_towards_E_Learning_A_Case Study_in_Higher_Education_in_Pakistan/links/5ea480db45851553faaed561/Analyzing-Students-Attitude-towards-E-Learning-A-Case-Study-in-Higher-Education-in-Pakistan.pdf

Rios, T., Elliott, M., & Mandernach, J (n.d). Efficient Instructional Strategies for Maximizing Online Student Satisfaction. *Journal of Educators Online*. https://files.eric.ed.gov/fulltext/EJ1199228.pdf

Saba, T.M., Mamman, J.S., & Nwabufo, B.N. (2017). Analysis of Factors Affecting the Effectiveness of Distance Learning Mode in the Preparation of Teachers in Colleges of Education, Nigeria. *Assumption University-eJournal of Interdisciplinary Research-(AU-eJIR), 2*(1), 65-73. ISSN: 2408-1906. https://www.proquest.com/scholarly-journals/analysis-factors-affecting-effectiveness-distance/docview/2384091871/se-2?accountid=201395

Savery, J.R., & Duffy, T.M. (in press). *Problem based learning: An instructional model and its constructivist framework.* Educational Technology.

Stansfield, M., McLellan E., & Connolly, T., (2004). Enhancing Student Performance in Online Learning and Traditional Face-to-Face Class Delivery. *Journal of Information Technology Education, 3,* 173-188. https://www.learntechlib.org/p/111448/article_111448.pdf

Titsworth, S., Allen M., Mabry E., Mattrey, M., Bourhis, J., Burrell, N. (2004). Evaluating the Effectiveness of Distance Learning: A Comparison using Meta-Analysis. Journal of Communication, 402-420.

https://www.academia.edu/download/42650891/Evaluating_the_Effectiveness_of_Distance2 0160213-7352-1dio1ye.pdf

Tucker, S.Y. (2000). Assessing the Effectiveness of Distance Education versus Traditional On-Campus Education. *Educational Resources Information Center (ERIC).* https://files.eric.ed.gov/fulltext/ED443378.pdf

Utomo, M.N.Y., Sudaryanto, M., & Saddhono, K. (2020). Tools and Strategy for Distance Learning to Respond COVID-19 Pandemic in Indonesia. *International Information and Engineering Technology Association, 25*(3), 383-390. https://doi.org/10.18280/isi.250314

Weidlich, J. & Bastiaens, T. (2018). Technology Matters – The Impact of Transactional Distance on Satisfaction in Online Distance Learning. *International Review of Research in Open and Distributed Learning*, *19*(3). https://doi.org/10.19173/irrodl.v19i3.3417

Wrenn, V. (2015). Effects of Traditional and Online Instructional Models on Student Achievement Outcomes. Liberty University. https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=2184&context=doctoral

Yousuf, M. I. (2007). Effectiveness of Mobile Learning in Distance Education. *Turkish Online Journal of Distance Education-TOJDE*.8 (4), 114-124. ISSN 1302-6488. https://dergipark.org.tr/en/download/article-file/156374

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