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Effectiveness of e-teaching and learning during lockdown among selected school students

Dayana BAA[1], Sri Sowmiya S[2]

Department of Medical Surgical Nursing, Saveetha College of nursing, SIMATS, Thandalam, Chennai, Tamil Nadu, India

Abstract

Information and communication technologies (ICT) as an aid to teaching models can provide valuable learning. E-learning was only linked to the use of personal computers. It is now supported by systems that promote the creation of learning networks, interaction, communication, and access to platforms from mobile devices. But also in E-learning is outlined as a teaching and learning modality that can represent all or part of the educational model to which it is applied, and use electronic media and devices to facilitate access to, and the evolution and improvement of, the quality of education and training. E-learning is a methodology that involves employing network technologies to create, foster, deliver, and facilitate learning anytime. The present study aim to determine the effectiveness of E-Teaching and learning during lockdown among selected school students. A descriptive research design was conducted among100 school students. A non-probability convenient sampling was used to select the sample. Self-administered structured questionnaires were used to collect demographic variable and associate E-teaching and learning. The study result shows, statistically significant association with effect of E-Teaching and Learning among school students at $p<0.01$.Thereby, this indicates that the moderate level of learning in E-Teaching and learning.

Keywords: Communication technologies, lockdown, e-teaching

Introduction

The effective integration of new technologies into training systems is becoming a basic requirement in today's globalised world [1]. Information and communication technologies (ICT) as an aid to teaching models can provide valuable learning resources and equip students with the personal and professional competencies required for their development [2, 3, 4]. Hence, these tools increase the level of significance and broaden the education conception by generating new training spaces among educational community members [5, 6, 7].

Initially, e-learning [8, 9, 10, 11] was only linked to the use of personal computers. However, it is now supported by systems that promote the creation of learning networks, interaction, communication, and access to platforms from mobile devices, and is now being included in not only educational designs and programmes, but also in online learning activities [12].

E-learning [12, 13, 14, 15] is outlined as a teaching and learning modality that can represent all or part of the educational model to which it is applied, and use electronic media and devices to facilitate access to, and the evolution and improvement of, the quality of education and training [16, 17]. E-learning is a methodology that involves employing network technologies to create, foster, deliver, and facilitate learning anytime and everywhere [18]. At the same time, four features must also be considered in its conceptualization: physical separation of teachers and students; students'

autonomous study; the interaction between participants in the teaching-learning (T/L) process through different digital synchronous and asynchronous communication-tools; the existence of institutional support [19, 20, 21, 22]. Its implementation in teaching implies access to technological and digital resources. Prior work on familiarization with and understanding of the proper use of these resources is also necessary [23]. Therefore, being familiarized with this teaching methodology, which is based on using ICT in more traditional teaching, will allow for individualized learning. This may generate a wide range of materials and make access to them more flexible [24, 25]. As a result, the e-learning effects on the T/L process are felt not only in the quality of learning, but also in the role played by educational agents (teachers and students), which supports the creation of a better equipped assessment and marking system [26, 27, 28].

By focusing on the different agents involved in the educational community, management board members positively view the set of transformations that have brought about structural change in methodologies to allow knowledge acquisition to have other sources from which to access information. Teachers perceive ICT-based teaching models as valuable resources thanks to their teaching and educational potential. However, they state that their use is normally irregular, sporadic, and intermittent. They also consider the continuous training aspect to be particularly relevant for the effective implementation of technologies

into classrooms [3, 29,].

Methods and Materials
A quantitative research approach with is a descriptive research design was conducted the study in gudiyatham, Vellore district. Final data was collected in the month of may 2021 among school students. Purpose of the study was explained to the subjects. The subjects were assured about anonymity and confidentiality of the information provided by them and written consent was taken from school students. Total 100 school students were selected by using Non- probability convenient sample technique. The criteria for sample collection are students who are willing to participate in the study, students who are available at the time of study, school students who are speak and write Tamil or English. The exclusion criteria for the sample selection are students who are not willing to participate in the study. The data collection period was done prior permission from the intuitions. Data collection conducted among school students. The data were analyzed using descriptive and inferential statistics. The sample characteristics were described using frequency and percentage. Chi square was used to associated the E-Teaching and Learning with the selected demographic variable.
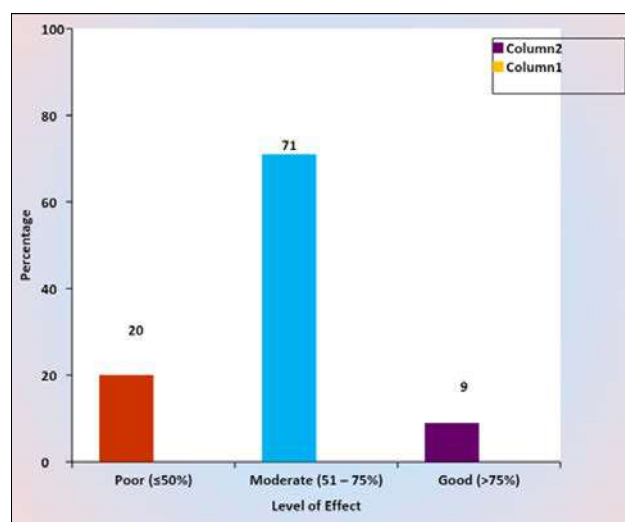
Result and Discussion
Section A: Description of the demographic variables of school students
Most of the school students, 35(35%) were aged between 14 to 15 years, 70(70%) were female, 39(39%) were studying 11th standard, 75(75%) belonged to nuclear family and 73(73%) had an income of Rs.10,001-15,000.

Section B: Assessment of effect of e-teaching and learning during lockdown among students.
Among school students 71(71%) had moderate effect of E-learning and teaching, 20(20%) had low effect and 9(9%) had good effect of E-learning and teaching during lockdown.

Section C: Association of effect of e-teaching and learning with selected demographic variables.
The demographic variables age and education had shown statistically significant association with effect of E-Teaching and Learning among school students at $p<0.01$ level and the other demographic variables had shown statistically significant association with effect of E-Teaching and Learning among school students.

Frequency and percentage distribution of demographic variables of school students.
The present study shows that, most of the school students, 35(35%) were aged between 14 to 15 years, 70(70%) were female, 39(39%) were studying 11th standard, 75(75%) belonged to nuclear family and 73(73%) had an income of Rs.10,001 – 15,000.

Table 1: Frequency and percentage distribution of effect of E-learning and teaching during lockdown among school students N = 100

Level of Effect	No.	%
Low (≤50%)	20	20.0
Moderate (51 – 75%)	71	71.0
Good (>75%)	9	9.0

Conclusion
The analysis revealed that there is moderate in the level of impact among the school students. The researcher concluded that in the process of ensuring the quality of online education, the instructor plays a key role. Not only because the instructor "faces" the students directly, but also because more responsibility has been put on the instructor's shoulder. The administrator should provide sufficient supports (training, administrative, monetary, and promotional), hire qualified faculty, and motivate faculty to provide effective online teaching. The findings of this study indicated that majority of the students evinced a positive attitude towards online classes in the wake of corona. The online learning was found to be advantageous as it provided flexibility and convenience for the learners.

Authors Contribution
All the authors actively participate in the work of the study. All authors read and approved the final manuscript.

Conflicts of interest
The authors declare no conflicts of interest.

Reference
1. Álvarez Q, Fernández MD, Mariño R. E-Learning: Another Way of Teaching and Learning in a Traditionally Face-to-Face University. Particular Case Study. Profesorado Revista de Currículum y Formación del Profesorado 2013;17:273-291.
2. Espino-Díaz L, Fernandez-Caminero G, Hernandez-Lloret CM, Gonzalez-Gonzalez H, Alvarez-Castillo JL. Analyzing the Impact of COVID-19 on Education Professionals. Toward a Paradigm Shift: 3.López-Mayor, L.; Cascales-Martínez, A. Tutorial Action and Technology: Formative Proposal in Primary

Education. Rev. Int. For. Prof. 2019;22:233-249.

3. Prieto DV, Quiñones LRI, Ramírez DG, Fuentes GZ, Labrada PT, Pérez O. Impact of Information and Communication technologies in education and new paradigms of the educational approach. Rev. Cuba. Ed. Med. Supply 2011;25:95-102.

4. Ayala OR. Information and Communication Technologies as Educational Resources in Training for Citizen Exercise. Rev. Integr. Educ 2012;5:105-118.

5. Gil-Jaurena I, Dominguez D. Teachers' Roles in Light of Massive Open Online Courses (MOOCs): Evolution and Challenges in Higher Distance Education. Int. Rev. Educ 2018;6:197-219.

6. McConnell, D. E-Learning Groups and Communities; Open University Press: London, UK, 2006.

7. Burdina GM, Krapotkina IE, Nasyrova LG. Distance Learning in Elementary School Classrooms: An Emerging Framework for Contemporary Practice. Int. J. Instr 2019;12:1-16.

8. Cacheiro-González ML. ICT Educative Resources for Information, Collaboration and Learning. Pixel-Bit Rev. Medios Educ 2011;39:69-81.

9. Kupczynski L, Mundy MA, Goswami J, Meling V. Cooperative Learning in Distance Learning: A Mixed Methods Study. Int. J Instr 2012;5:81-90.

10. Poveda DF, Rodríguez A. E-Learning Models to Integrate ICT and Transform Distance Education Programs into Virtual Programs. UNAD 2014;13:59-75.

11. Gros B. The Evolution of E-Learning: From the Virtual Classroom to the Web. RIED 2018;21:69-82

12. Amor-Pérez M, Hernando-Gómez A, Aguaded-Gómez, I. The Integration of ICT in Educational Centers: Perceptions of Coordinators and Directors. Estud. Pedag. 2011;37:197-211.

13. Cabero J. Virtual Training in the New 2.0 Framework: E-Learning 2.0. In Tecnologías y Medios Para la Educación en la E-Sociedad; Aguaded JI, Cabero J, Eds.; Alianza Editorial: Madrid, Spain 2013, 23-51.

14. Suárez JM, Almerich G, Orellana N, Belloch MC. The Use of ICT by Non-University Teaching Staff. Basic Model and Influence of Personal and Contextual Factors. Rev. Iberoam. Eval. Educ 2012;5:249-265.

15. Dhawan S. Online Learning: A Panacea in the Time of COVID-19 Crisis. J Educ. Technol. Syst 2020;49:5-22.

16. Sangrá A, Vlachopoulos D, Cabrera N. Building an Inclusive Definition of E-Learning: An Approach to the Conceptual Framework. IRRODL 2013;13:145-159.

17. Area M, Adell J. E-Learning: Teaching and Learning in Vitual Spaces. In Ecnología Educativa: La Formación del Profesorado en la era de Internet; Pablos, J Ed.; Aljibe: Málaga, Spain, 2009, 391-424.

18. Çevik H, Duman T. Analyzing the Effects of E-Learning on Science Education. Int. J Instr 2018;11:345-362.

19. García, L. Bases, Mediations and Future of Distance Education in the Digital Society; Síntesis: Madrid, Spain, 2014.

20. So WWM, Chen Y, Wan ZH. Multimedia E-Learning and Self-Regulated Science Learning: A Study of Primary School Learners' Experiences and Perceptions. J Sci. Educ. Technol 2019;28:508-522.

21. Dey P, Bandyopadhyay S. Blended Learning to Improve Quality of Primary Education among Underprivileged School Children in India. Educ. Inf. Technol 2019;24:1995-2016.

22. Crisol-Moya E, Herrera-Nieves L, Montes-Soldado R. Virtual Education for All Systematic Review. Educ. Knowl. Soc 2020;21:1-13.

23. Firat M. Measuring the E-Learning Autonomy of Distance Education Students. Open Prax. 2016;8:191-201.

24. Espino-Díaz L, Alvarez-Castillo JL, Gonzalez-Gonzalez H, Hernandez-Lloret CM, Fernandez-Caminero G. Creating Interactive Learning Environments through the Use of Information and Communication Technologies Applied to Learning of Social Values: An Approach from Neuro-Education. Soc. Sci 2020;9:72.

25. Margottini M, Rossi F. Self-Regulation Processes and Feedback in Online Learning. J Educ. Cult. Psychol. Stud 2020;21:193-209.

26. Rodenes M, Salvador R, Moncaleano G. E-Learning: Characteristics and Evaluation. Ensayos Econ 2013;43:143-159.

27. Almerich G, Suárez JM, Belloch MC Bo RM. Training Needs of Teachers in ICT: Training Profiles and Elements of Complexity. RELIEVE 2013;7:1-28.

28. Chiappe A, Amado N, Leguizamon L. Educommunication in Digital Environments: An Interaction's Perspective inside and beyond the Classroom. Innoeduca 2020;6:34-41.