Methods of E-Learning In Education

Nurul Fatin Farzana Bun Jamen

Faculty of Information Management, Universiti Teknologi MARA, Malaysia

Received: 14 May 2019 • Accepted: 27 October 2019

Abstract. The aim of this research is to identify the methods that has been using in implement e-learning. This paper proposes the three methods that often used in e-learning. As a result, the study reveals the significance of the methods that often used in e-learning. This paper is also expected to act as a medium to look for chances in implementing e-learning in education.

Keywords: E-learning, education, teacher and students, traditional lessons, immediate ways, effectively use.

Introduction

A learning system based on formalized teaching but with the help of electronic resources is known as e-learning. Understanding e-learning is simple because it is a learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online. In this era, user prefers e-learning because it is more immediate way than traditional classroom because it involves technology. The purpose of this study is to study the methods of e-learning. There are three methods that have been used in e-learning. The first method of e-learning according by (Wastiau et al., 2013) is Information and Comunication Technology (ICT). The second method stated by (Zirawaga et al., 2017) of e-learning is Moodle. The last method of e-learning is Online Learning Community (OLC), this point is supported by (Gray, 2004).

Literature Review

This research is expected to define the methods that mostly used in e-learning process also its impacts towards education. For the methods, we focus on three types of methods; which is Information and Communication Technology (ICT), Modular Object-Oriented Dynamic Learning Environment (Moodle) and Online Learning Community (OLC) which are believed that will give effect to the instructor and learners.

Information and Communication Technology (ICT)

Information and Communication Technology (ICT) is very familiar at school and it is frequently used by teacher to prepare their teaching content (Wastiau et al., 2013). Besides that, the author also stated that ICT creating an effective learning process in understand the content and this can increase their interest to learn by themselves. According to (Wastiau et al., 2013; Presnky, 2004), laptop, tablets and mobile phones is the most effective tools in developing ICT learning. Other than that, (Baytiyeh, 2018) found that ICT also becomes an ideal solution for communication and interventions during post-earthquake school closures. This is because study by (Brian & Ben-Zeer, 2014; Kanuri et al., 2015) mentioned that ICT as a method in delivering mental health supports to disasters victims during the post-earthquake. As for the conclusion, ICT can be access by any devices and user can improve their skills in communication and using technology by implement this method in learning.

Modular Object-Oriented Dynamic Learning Environment (Moodle)

According to (Ziwaraga et al., 2017), Moodle is for Modular Object-Oriented Dynamic Learning Environment. This application allows the instructor can edit and upload their learning lessons for their students. (Ziwaraga et al., 2014; Robb, 2004) stated that this Moodle is a useful learning environment because student can access it with anywhere and anytime with any devices. Teacher and students including the whole class also can interact to each other or having a discussion by using this method. Students also can balance the traditional learning method of teaching with elearning. In addition, this method is an open source platform that provides a flexible and user friendly environment. As for the conclusion, Moodle is more like virtual classroom that allows the instructors and the learners making connection to each other.

Online Learning Community (OLC)

OLC is a short form for Online Learning Community. This is one of the effective method that been use in e-learning. This method involves mutual learning process and exchanges their opinions through electronic devices (Sanchez-Casado et al., 2018; Wang et al., 2013). OLC also can improve the teacher teaching styles when they create an interactive education style (Lin et al., 2014; Wang et al., 2013). Besides that, it allows students to learn a new skill and work practices but also an easy process of knowledge sharing through practices and encourage communication with colleagues and peers (Sanchez-Casado et al., 2018; Gray, 2004). In addition, according to Hord, (2004), Lin et al, (2014) and Toole & Louis, (2002) found that OLC can provide structure between the teachers and students that can lead to welfare. As for the conclusion, it is recommended all the higher education organization need to implement and support OLC (Sanchez-Casado et al., 2018).

Table 1. Analysis of Review

Author (s)	(ICT)	(Moodle)	(OLC)
Shironica Karunanayaka et al. (2013)		✓	
Julian Chamizo-Gonzalez et al. (2015)	√	✓	
Jorge Cegarra-Sánchez et al. (2018)	√		✓
Hoda Baytiyeh, (2018)	✓	✓	
Ainslie Robinson & David Cook, (2018)		✓	
Steven Wdowik, (2014)	✓		✓
Patricia Wastiau et al. (2013)	✓		
Victor Samuel Zirawaga et al. (2017)		✓	✓

Conclusion

As for the conclusion, the three methods that have been discussed in this chapter is the effective method in e-learning. According to the table analysis that has been attached, these three methods should be providing in all higher education institution. According to (Widowik, 2014), the teachers need to play the main role in providing supportive lessons to attract the students to participate the learning session. The student itself must shows cooperation to their teachers. In addition, the study also proves that using technology give positive feedback on learning environment and improves the technology skills to the users. To conclude, e-learning is the most effective ways to improve the quality of education through the e-learning methods (Chamizo-Gonzalez et al, 2015).

References

Adult online education. (2018). *Development and Learning in Organizations: An International Journal*, 32(3), pp.31-34.

Baytiyeh, H. (2018). Online learning during post-earthquake school closures. *Disaster Prevention and Management: An International Journal*, 27(2), pp.215-227.

- Cegarra-Sánchez, J., Bolisani, E., Cegarra-Navarro, J. and Martínez Caro, E. (2018). Online learning communities and their effects on relational capital. *VINE Journal of Information and Knowledge Management Systems*, 48(4), pp.491-503.
- Chamizo-Gonzalez, J., Cano-Montero, E., Urquia-Grande, E. and Muñoz-Colomina, C. (2015). Educational data mining for improving learning outcomes in teaching accounting within higher education. *International Journal of Information and Learning Technology*, 32(5), pp.272-285.
- Cheston, C., Flickinger, T. and Chisolm, M. (2013). Social Media Use in Medical Education. *Academic Medicine*, 88(6), pp.893-901.
- Gray, B.(2004), "Informal learning in an online community of practice", Journal of Distance Education, Vol.19No.1,pp.20-35.
- Chitpin, S. (2014). Principals and the professional learning community: learning to mobilize knowledge. *International Journal of Educational Management*, 28(2), pp.215-229.
- Hermans, H., Kalz, M. and Koper, R. (2013). Toward a learner-centered system for adult learning. *Campus-Wide Information Systems*, 31(1), pp.2-13.
- Hord,S.M.(2004), "Professional learning communities: an overview", in *Learning Together Leading Together Changing Schools through Professional Learning Communities*, Teachers College Press, p.5.
- Kanuri, N., Newman, M.G., Ruzek, J.I., Kuhn, E., Manjula, M. and Jones, M. (2015), "The feasibility, acceptability, and efficacy of delivering internet-based self-help and guided self-help interventions for generalized anxiety disorder to Indian university students: design of a randomized controlled trial", JMIR Research Protocols, Vol. 4 No. 4, p. 136
- Karunanayaka, S., Fernando, C. and de Silva, V. (2013). Designing an online learning environment on Open Educational Resources for science education. Asian Association of Open Universities Journal, 8(1), pp.1-11.
- Leeds, B. (2014). Temporal experiences of e-learning by distance learners. *Education + Training*, 56(2/3), pp.179-189.
- Lin, K.Y., Hong, H.Y. and Chai, C.S. (2014), "Development and validation of the knowledge-building environment scale", Learning and Individual Differences, Vol. 30, pp. 124-132, doi: 10.1016/j. lindif.2013.10.018.
- Louis, K.S., Kruse, S. and Bryk, A.S. (1995), "Professionalism and community: what is it and why is it important in urban schools?", inProfessionalism and Community Perspectives on Reforming UrbanSchools,SAGEPublicationsLtd.

- Prensky, M. (2004) Digital Game-Based Learning (New-York, Mcgraw-Hill) Redecker, C., Ala-Mutka, K., Bacigalupo, M., Ferrari, A. & Punie, Y. (2009) Learning 2.0: The Impact Of Web 2.0 Innovations On Education And Training In Europe (Sevilla, Jrc-Ipts).
- Robb, T. (2004). Moodle: A Virtual Learning Environment for the Rest of Us. TESL-EJ, 8(2), 1-8. Roblyer, M., & Doering, A. (2013). Integrating educational technology into teaching (6th ed.). Van Ments, M. (1999). The effective use of role-play (2nd ed.). London: Kogan Page. Yue, W., & Zin, N. (2009). History educational games design. Institute of Electrical and Electronics Engineers (IEEE).
- Rosli, M., Saleh, N., Aris, B., Ahmad, M., Sejzi, A. and Shamsudin, N. (2015). E-Learning and Social Media Motivation Factor Model. *International Education Studies*, 9(1), p.20.
- Rui-Hsin, K. and Lin, C. (2018). The usage intention of e-learning for police education and training. *Policing: An International Journal*, 41(1), pp.98-112.
- Wang, M., Sierra, C. and Folger, T. (2003), "Building a dynamic online learning community among adult learners", Educational Media International, Vol. 40 NoS. 1/2, pp. 49-62, doi: 10.1080/0952398032000092116
- Wastiau, P., Blamire, R., Kearney, C., Quittre, V., Van de Gaer, E. and Monseur, C. (2013). The Use of ICT in Education: a survey of schools in Europe. *European Journal of Education*, 48(1), pp.11-27.
- Wdowik, S. (2014). Using a synchronous online learning environment to promote and enhance transactional engagement beyond the classroom. *Campus-Wide Information Systems*, 31(4), pp.264-275.
- Zirawaga, V.S., Olusanya, A.I., Maduku, T. (2017) Gaming in Education: Using games as a support tool to teach history. *Journal of Education and Practice*, 8(15),.