
THE EFFECTS OF ONLINE LEARNING ON STUDENTS' POSITIVE AND NEGATIVE ONLINE LEARNING OUTCOMES

KHAWATER FAHAD A. ALSHALAN

ABSTRACT

The physical classroom is known as a vital place for students to learn. However, learning is still possible while using the Internet. Research indicates that online learning can result in developing the learning outcomes of a student. Researchers and educators tend to compare the effectiveness of face-to-face education and online learning. This paper investigates how online learning is proved to be as effective as traditional learning by listing and summarizing its positive and its negative findings. Moreover, this literature review advises educators to consider online learning at all times and trust its guaranteed outcomes.

Keywords: online learning, blended learning, traditional learning, positive learning outcome, negative online outcome, effects, benefits.

1.0 INTRODUCTION

Online learning means that classes are done virtually. Students are not physically together; they are separated. Electronic means, like a computer and Internet, are required to be accessible to educational online services. Although, the availability of technology nowadays and the spread-out nature of the Internet have produced a flow in the need for web-based teaching and learning (Chaney, 2010). The use of distance learning is quickly increasing, which helps users not be restricted in the specified time and place; it is flexible (Chaney, 2010). This paper investigates how online learning is proved to be as effective as tradition learning by listing and summarizing its positive and its negative findings.

2.0 DEFINITIONS

The U.S. Department of Education (2010) defined online learning as “learning that takes place partially or entirely over the Internet”. Online learning is a form of distance education (Bartley & Golek, 2004). The student is exposed to online courses, which are courses completely given with the use of the Internet. This paper also mentions blended learning that associates traditional face-to-face learning and learning supported by technologies (Hoic-Bozic, Mornar, & Boticki, 2009).

3.0 BENEFITS OF ONLINE LEARNING

There are many benefits to using online learning. First, students get an effective education. Second, it's less expensive than traditional education. Third, anyone with an Internet

connection can join a World-class education (De la Varre, Keane, & Irvin, 2011; Lorenzetti, 2013).

There is a study that shows, in 2014, the overall national college student loan debt is more than one trillion dollars (Finaid.org, 2014). Educators consider online learning an effective form in battling the expensive cost of traditional education by offering less expensive courses and by fattening an enormous number of students in one class that is impossible to happen in a traditional setting (Bowen, 2013).

Several scholars have a positive attitude towards the success of online learning, especially for the websites that provide a huge number of open online courses (Fisher, 2012; Lewin, 2012). These famous websites and companies that provide such courses include edX, Khan Academy, Coursera and Udacity.

Even though there are many benefits of online learning, there must be some concerns regarding its effectiveness in educating students. The focus of this paper is to make sure that online learning format is as effective as the traditional format in educating students by listing the positive and the negative student learning outcomes.

4.0 POSITIVE ONLINE LEARNING OUTCOMES

Numerous research studies investigate and conclude that there are statistically positive outcomes of students' learning in online education. These positive outcomes revolve around measuring test scores, material involvement, students' attitudes towards online learning and decreasing the rate of students' failure.

Riffell and Sibley (2005) conducted a study about the struggle of an archaeologist in completing a science course in order for him to graduate. Jean-Luc failed the science traditional course and joined the online version of the same course that he failed. He was much comfortable with online and performed better in online assignments because he had ample time to study more than traditional lectors. Therefore, Jean-Luc test scores were higher than the traditional class. This is one example that clearly explains how a student had a positive online learning outcome.

Another study conducted by (Bowen & Ithaka, 2012) at Ithaka states that there was a control group and a treatment group. The control group was the students taking the traditional learning format. However, the treatment group is about the student meeting and learning online once a week. Findings show that there are similar learning outcomes for both the control group and the treatment group. However, there were cost savings for the online course. Moreover, the development of learning and cost-saving improvement is being tested as a new beneficial tool for online learning.

Online education has its great features; freedom from restricted time and place and freedom from closed areas (Keegan, 2000). Mehrmohammadi (2002) declares that learning is not only accomplished in a closed classroom; it can be massively developed through the use of technology. Students can acquire and reach to more recourses to learn about. Online learning provides students with the ability to learn anywhere and anytime (Adibi, 2010). After all

these positive views about online learning, this paper needs to mention negative online learning outcomes.

5.0 NEGATIVE ONLINE LEARNING OUTCOMES

There are some studies that indicate negative online learning outcomes. The researchers Brown and Liedholm (2002) found that, in a microeconomics course, students who took the online format had worse test scores than the students who took the traditional format while they had better GPA scores. The reason behind these unfortunate results is spending less time studying online compared to the traditional format. Online students claimed that they spend less than three hours each week; traditional students attended every class, which is at least three hours. Having the time needed to study a course would lead to better test scores.

Figlio et al. (2010) conducted one experimental study about online learning and the traditional format. Some students attended lectures and others watched the same lecture online using the same material and the type of instruction. Findings show that there was a positive effect on the traditional format, not the online format. The reason behind this is that the traditional students had the chance to learn from attending the class and watch the online lecture; they had two resources. As for the online learners, they only had one resource to study from.

6.0 CONCLUSION

To conclude, online learning is as effective as traditional learning based on positive and negative online learning outcomes. The use of online learning assists students to not be restricted in learning at a specified time and place; it is flexible. One can say that online learning is still improving and its progress will depend on the upcoming future.

REFERENCES

- Adibi, M. (2010). The effect of information and communication technology on the educational improvement of secondary students (Unpublished master's thesis). Islamic Azad University-Garmsar Branch.
- Bartley, S. J., & Golek, J. H. (2004). Evaluating the Cost Effectiveness of Online and Face-to-Face Instruction. *Educational Technology & Society*, 7(4), 167–175.
- Bowen, W. G. (2013). *Higher education in the digital age*. Princeton University Press.
- Bowen, W. G., & Ithaka, S. (2012). *Interactive learning online at public universities: Evidence from randomized trials*. Ithaka S+ R. Retrieved from <http://mitcet.mit.edu/wp-content/uploads/2012/05/BowenReport-2012.pdf>
- Brown, B. W., & Liedholm, C. E. (2002). Can web courses replace the classroom in principles of microeconomics? *The American Economic Review*, 92(2), 444–448.

- Chaney E. G. (2010). Web-based instruction in a Rural High School: A Collaborative Inquiry into Its Effectiveness and Desirability. *NASSP Bulletin*, 85(628), 20-35.
- De la Varre, C., Keane, J., & Irvin, M. J. (2011). Enhancing Online Distance Education in Small Rural US Schools: A Hybrid, Learner-Centred Model. *Journal of Asynchronous Learning Networks*, 15(4), 35–46.
- Figlio, D. N., Rush, M., & Yin, L. (2010). *Is it live or is it internet? Experimental estimates of the effects of online instruction on student learning*. National Bureau of Economic Research.
- FinAid | Loans | Student Loan Debt Clock. (n.d.). Retrieved March 5, 2014, from <http://www.finaid.org/loans/studentloandebtclock.phtml>
- Fisher, D. (2012, November 6). Warming Up to MOOC's. *The Chronicle of Higher Education Blogs: ProfHacker*.
- Hoic-Bozic, N., Mornar, V., & Boticki, I. (2009). A Blended Learning Approach to Course Design and Implementation. *IEEE Transactions on Education*, 52(1), 19–30. doi:10.1109/TE.2007.914945
- Keegan, D. (Ed.). (1993). *Theoretical principles of distance education*. London: Routledge.
- Lewin, T. (2012, July 18). Anant Agarwal Discusses Free Online Courses Offered by a Harvard/M.I.T. Partnership. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/07/20/education/edlife/anant-agarwal-discusses-free-online-courses-offered-by-a-harvard-mit-partnership.html>
- Lorenzetti, J. (2013.). *Academic Administration - Running a MOOC: Secrets of the World's Largest Distance Education Classes - Magna Publications*.
- Mehrmohammadi , M. (2002, July). Online education. Proceedings of the third conference of quality managers (131-153). Tehran: Iranian Standard and Industrial Research Organization. Available online at: www.qmconference.com/indexFa.aspx?p=25
- Riffell, S., & Sibley, D. (2005). Using web-based instruction to improve large undergraduate biology courses: An evaluation of a hybrid course format. *Computers & Education*, 44(3), 217–235.
- U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*, Washington, D.C., 2010. <https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>.