Research on the Factors Influence Online Education

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Abstract: This paper examines the literature on online education in regard to the factors that affecting online education, especially with the motivation, teachers, learners, educational technology, and other potential influencing factors and how to affect online education. Search identified 35 papers reporting empirical evidence including qualitative and quantitative research. The findings revealed that various factors affecting online education though different ways. The most frequently occurring factor are attitudes and feeling of teachers and learners. Recommendations of improving online education from different aspects are discussed.

1. Introduction

The world has always seen new technologies and inventions throughout history. Still, it's hard to deny that this last century is special in the ways it's surging with new technologies and inventions. As technologies improve, new ideas and new ways of doing things emerge. Almost always, all these aspects of life affect each other. Ideas, technologies, things, and people are never mutually exclusive.[1]

As Cook and Grant-Davis (2005) mentions in the past times many educational institutions and programs have been experimenting with teaching from a distance using audio, video, telephone, and wide-area networks. When computer technology has developed to what it is today and the world wide web has reached millions at present, the use of online and live lessons, learning management systems, and all aspects of distance education has become extremely important within academia and out. With the speedy advent of technology in all aspects of our public and private life, we see all forms of technological tools being used in classrooms as part of the lesson. Here, one of the things academia has to do is to inform the educational institutions and teachers of the pedagogical uses of such technological tools in our lessons. So, we use them intentionally and consciously in our schools.[2-3]

In this last two-decade, online education has improved in such a way that now there are mega-universities in many countries, teaching thousands of students online such as British Open University, China TV University System, the French Centre National d'Enseignement àDistance, Indira Gandhi National Open University, and Indonesia's Universitas Terbuka, among others. Apart from these, there are many online lessons on websites such as Udemy, Coursera, Edx etc. Youtube and other video platforms offer many video lessons as well. Nowadays Instagram live is quite popular in many countries, in the way many experts give live conferences via this app reaching so many people around the world.[4]

During the past pandemic period, there were a lot of essential changes in every field in our life, such as transportation, medicine, education, and so on. Especially in the educational area, the biggest change was that online lessons almost replace face-to-face lessons during that period. To reduce the

time that many people stay in one place which can lead to the risk of being infected Covid 19. Many countries made decisions to turn the face to face lessons online. Students could take online lessons or meetings. The online education system had become very essential since those times. The aim of the current article was carrying out a systematic literature review on issues of online education.[5]

2. Definition of The Gap and The Significance of The Study

Amidst the Coronavirus pandemic and crisis, the whole world's education had been transferred to online platforms during that period. Since it was a very large-scale issue, doing a systematic literature review on online education at that time of the past affairs has never been done before. Scanning the literature with the perception we bring to the table due to our experiences as a teacher and as a student during online education of that period revival is extremely valuable. It's clear that such an outlook and circumstances we all are in can bring new perspectives to a systematic literature review on Online Education.[6-7]

The article will be beneficial for administrators, instructors and students. This article will scan the literature about online education. The readers can take a lot of information about online education from this article. The administrators can adjust their curriculum according to the features of online courses, instructors can take instructional designs specially for online, and learners can use more efficient learning strategies for online learning.[8-9]

3. Research Questions and Goal of the Systematic Review

This systematic review aims to identify what educational technology field and academy has explored in terms of online education during 2015-2021these five years.

Summarize the components of online education and the characteristics of technology, so that a wider range of readers can understand the information of online education, and improve the integration of educational technology and other factors (such as learning strategies, teaching strategies, attitudes, motivation, etc.) with online education to support the efficiency of online education. The scope was limited in higher education/ university.[10-11]

The research questions that guide this systematic review are:
1) What are the researches focuses on?
2) What research has been done on technology use among online education?
3) What are the factors that affect the online education? How do the factors influence efficiency of online education?

4. Methods

The search focused on the literature on online education in the context of technology and the factors of affecting online education published between January 2015 and January 2021. The search was limited to this period because the online education developed quickly during this period.[12]

4.1 Selecting the literature

The process for selecting the literature included in the current review started with a search in the databases Google Scholar and Education Resources Information Centre (ERIC). Keywords included online education, online teaching, online learning, online courses, distance education, distance teaching, distance learning, distance education, and technology, teacher, learner, motivation, attitudes, which responded to the descriptors/topics 'online education', 'online teaching', 'online learning'.[13] According the key words and time the searches retrieved 3574 articles. Then according the inclusion

criteria, the first round of selection was conducted. The inclusion criteria were the following first, fourth criteria, 392 articles were retrieved. Then researcher reviewed the titles and abstracts, findings and methods of these articles, conducted the second round of selection according the following second and third criteria. Finally, 35 articles were included in this review.[14]

The selected papers were conducted a descriptive analysis. The table of the article implies some content, including the purpose of the study, the characteristics of the participants, the methods and results, and the inclusion of the article must meet the eligibility criteria:[15-16]

1) Be academic journals
2) Be empirical studies
3) Focusing one of the influencing factors of online education
4) Be published between 2015 and January 2021

4.2 Data analysis

4.2.1 Coding of papers

The 35 articles that selected by the inclusion criteria were coded and categorized the different kinds of factors. It encodes the factors that take learners and teachers as direct factors, and further encodes the factors such as specific types of factors, learners ' motivation, technology use, and learners ' attitudes. The design of the study also was coded according to the kinds that used: quantitative, qualitative or mixed method.[17-18]

4.3 Results

Table 1: Different factors of online education

Kind of the factor	Number
Technology	10
Attitudes and perceptions	11
Strategy	3
Social environment	2
Motivation	5
Teacher	2
Learner's feedback	1
Administrator management	1

The Table 1 shows the different kinds of factors that were explored in the papers, the results showed that a number of the different factors that affecting online education were explored. The number of research about attitudes and perception and technology is most. Technology is 10 and attitudes and perception are 11. And then motivation is five. 3 article that are about strategy, 2 articles are about social environment. Teacher is also 2. The article about learner's feedback and administrator management is 1, 1, respectively. [19-20]

5. Conclusion

5.1 Technology

Online technologies had been explored, the study of the online flipped classroom (Liu, Chubarkova, & Kharakhordina, 2020) compared the flipped classroom online and campus based and the finding showed that there is no significant difference between performance of online and campus based flipped classroom. However, the performance in the online flipped classroom showed a

polarization. When using online discussion posts using that is important to provid frequent and posts which on course topics, improve online discussion of online class. (Raković, M., Marzouk, Z., Liaqat, A., Winne, P. H., & Nesbit, J. C. 2020) And also there is a study about mobile using during the online period. Whatsapp using during course part can motivate the motivation of learners and support students turn the knowledge into practice. [21-22]

5.2 Attitudes and perceptions

This part mainly focuses on the learners and teachers' attitudes and perceptions towards many aspects that related to online education. like the attitudes of learners toward online course during the pandemic, generally the different results from study showed that learner's attitudes negative ones are more than the positive attitudes (Adnan, M. 2020) Students attitudes towards Moocs, perceptions toward vocational education also be examined in the study(Syauqi, K., Munadi, S., & Triyono, M. B. 2020) (Zhou, M. 2016) Social environment is about pandemic time, the online education directly be affected by that (Julien, G., & Dookwah, R. 2020) The motivation of students facing online education like Moocs was explored.[23-24]

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