

Online Education and Students' Satisfaction in Response to Covid 19: Evidence from Faculty of Technology, Debre Tabor University

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ABSTRACT

Given the failure of traditional education systems, all that remains today is a virtual education system that changes the education system by very much. The purpose of this study was to investigate and evaluate the relationships between various factors related to the satisfaction of Faculty of Technology, Debre Tabor University, students at the time of the COVID 19 pandemic. This cross-sectional study was conducted in 2020 on students at the Debre Tabor University, Faculty of Technology. They responded to a survey created through the Google platform and the responses were collected online. We analyzed the satisfaction level of virtual education learning and the overall evaluation points of various aspects of the questionnaire. A total of 365 of the 4,224 students volunteered to participate in this study. Student satisfaction with mixed teaching was higher and significant ($p < 0.05$) than the two separate styles, but there was no significant association between satisfaction and some demographics. The majority of participants (87%) were not satisfied. There was a significant association between computer literacy, semester, program level and overall satisfaction ($p < 0.05$). Students showed high dissatisfaction and negative attitude towards online system because both teachers and students had not a "online (virtua) learning space" at home.

Key words: Online education, Students, Satisfaction, Covid-19

INTRODUCTION

Practicing online(virtual learning) learning is a key to satisfy customers by minimize the influence of COVID 19 because education is believed to be the key means through which citizens could be liberated from poverty and backwardness. It also establishes hope among students and families for brighter future. In recognition to this in Ethiopia there are 45 public universities engage in providing education and training for a number of students. However, armed conflicts, forced displacements and many other crises have disrupted the education of 75 million children and youth globally. And that number is growing in an exceptional way with the spread of COVID-19. The coronavirus disease 19 (COVID-19) is a highly transmittable and pathogenic viral infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which emerged in Wuhan, China in December 2019 and spread around the world. There is no clinically approved antiviral drug or vaccine available to be used against the disease. In March 2020 the World Health Organization declared the SARS-Cov-2 virus a global pandemic [1,2].

In response to COVID-19, many countries have now introduced travel restrictions (both inward and outward) with the intention to prevent the spread of the epidemic. Public health experts and

government officials are taking several measures, including social distancing, selfisolation, or quarantine; strengthening health facilities to control the disease; and asking people to work at home. Education has been hit particularly hard by the COVID-19 pandemic with 1.53 billion learners out of school and 184 country-wide school closures, impacting 87.6% of the world's total enrolled learners. Drop-out rates across the globe are likely to rise as a result of this massive disruption to education access [3]. With the spread of the Coronavirus disease (COVID-19), among many disruptions to normal life, more than 160 countries have mandated temporary school closures, leaving 1.6 billion children and youth out of school. Extended school closures may cause not only loss of learning in the short-term, but also further loss in human capital and diminished economic opportunities in the long-term. To help mitigate the loss of learning, many countries are pursuing options to utilize online learning to manage and cope with the crisis. Students take advantages of online virtual education using online learning technology. Online learning can ensure that students 'continue learning through a variety of avenues. While digital technologies can offer a wide set of capabilities for online learning, most education systems in low- and middle-income countries, including schools, children and/or teachers, lack access to high-speed broadband or digital devices needed to fully deploy online

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learning options. As such, education systems need to consider alternative ways for students to continue learning when they are not in school, like in the current COVID-19 crisis [4].

Efforts to reduce the spread of the COVID-19 virus among the younger and adult populations has prompted the widespread closure of schools, colleges, universities, and other educational institutions in many countries. As of March 25, 150 countries have closed schools and educational institutions nationwide, impacting over 80% of the world's student population. Several countries have implemented localized school closures and those closures are expected to be nationwide. In light of rising concern about the current COVID-19 pandemic, a growing number of universities across the world have either postponed or canceled all campus events such as workshops, conferences, sports, and other activities [5].

In response to coronavirus outbreak, schools and universities are closed in Ethiopia and many parts of the world. As result of school closures caused by COVID-19, UNESCO recommends the use of distance learning programmes and open educational applications and platforms that schools and teachers can use to reach learners online and limit the disruption of education. Thus, national efforts to utilize technology in support of online learning, distance education and online learning during the COVID-19 pandemic are emerging and evolving quickly [6-8]. This implies that Staffs are expected to work online and students are required to take classes online and/or offline with resources. While these solutions work for many urban areas, this is out of reach for millions of Ethiopians in rural areas. So many don't have access to internet and even lack online learning apparatus (books, mobile, laptop, computers, Television, radio).

In many countries, the immediate response to the need to close institutions was to pivot as much as possible into distance learning. In many places, this has resulted in online delivery. Through issues of equity, infrastructure, broadband capacity, and pedagogic capacity immediately emerged as challenges in online learning. Other forms distance learning: from email delivery/return of assignments, TV, radio, phones and mobile applications, and independent study are tried and tested in this massive global experiment as off-site learning potential and modalities. In delivering online learning for different education levels the content must be multi modal, with different technologies used for different education levels. Well-planned online learning experiences are meaningfully different from courses offered online in response to a crisis. Colleges and universities working to maintain instruction during the COVID-19 pandemic should understand those differences when evaluating this emergency online teaching. Transition to distance learning platform tends to be messy and frustrating, even in the best circumstances [9,10].

This research entitled "Online Learning Practices and student satisfaction in Response to Covid 19" to undertake problem-solving research on the current learning crises and increase customer satisfaction due to COVID 19. The aim of this study is to investigate emergency virtual (online) learning practices, experiences and challenges during COVID 19 crisis in Faculty of Technology, Debre Tabor University. The study of online (virtual) learning during the COVID 19 crisis would be beneficial to identify gaps and to recommend actions and considerations related to influence of COVID 19 with customer satisfaction. The outputs of this research would also provide scientific information and propose possible solutions, immediate actions/considerations and future directions in managing the learning crises we face due to COVID 19.

The threat of COVID-19 has presented some unique challenges for institutions of higher education and schools. Students and teachers are being asked to do extraordinary things regarding course teaching and learning. For evaluation and future implementation purpose we need research's outputs and detailed documents of the situation.

Objective of the Study

General objective

The main objective of this study is to investigate emergency online (virtual) learning practices, experiences, challenges and student satisfaction in response to COVID 19 crisis.

Specific objectives

The specific objectives are listed as follows:

- Evaluating the effectiveness of emergency online (virtual) learning practices being implemented
- Examining the existing challenges in implementing the emergency online learning practices
- Identifying alternative online learning strategies and experiences
- Suggesting suitable online learning approaches

METHODOLOGY OF THE STUDY

Study Area

Faculty of technology is one of the faculties in Debre Tabor University; is one of the public universities established in 2008 at Debre Tabor town located 654 km north of Addis Ababa and 113 km north east of Bahir Dar. Currently, the university enrolls 4,224 students in undergraduate programs.

Study Design

The study will employ a cross sectional descriptive survey design involving both quantitative and qualitative research approaches.

Target Population and Sample Size Determination

The sample size was determined by using stratified random sampling technique and the target respondents has been selected from each stratum by using systematic random sampling procedures. Particularly, students were stratified on the basis of their departments. The number of respondents in each stratum was determined by proportionally allocation approach and the actual respondents were identified by a lottery method from the list of the names to be obtained from the records of the institutes.

Currently, there are 4,224 students enrolled in the selected facility (756 students in chemical engineering department, 1342 students in civil engineering department, 383 students in computer science department, 931 in electrical engineering department and 812 students in mechanical engineering department). The sample size has been determined by using Yemane's formula:

$$n = \frac{N}{1 + N(e)^2} \text{ Sample Size} = \frac{4224}{1 + 4224(0.05)^2} = 365$$

Where: n-Sample size, N-population, e-Margin of error of 0.05.

Statistical Analysis

All statistical methods were performed by using SPSS software version 23. Quantitative data were presented as mean \pm SD and qualitative ones reported as frequency and percent. To analyze,

due to normal distribution, Chi-square and Pearson correlation tests were used to identify the relationships in qualitative and quantitative variables, respectively. The statistical significance level was set at $p < .05$.

RESULTS

Three hundred sixty five students (75.1% male and 24.9% female) with a mean age of 21.85 ± 1.75 years (ranging from 19 to 29 years) participated in the study.

The percentages of subjects at the different grades were as follows: Bachelor students =96.1%, Master students =3.9% and PhD students =0%. The majority of participants had basic (67.3%) and

intermediate (23.4%) computer skills and whilst only 9.3% of them have advanced computer skill (Table 1).

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This results show that majority of students (87%) had not at all satisfied and only 3% of them were highly satisfied with this management of online learning system (Table 3 and 4).

Table 1: Sample Size Determination.

Departments in Faculty of Technology in Debre Tabor University= strata	Population size (Ni)	Proportion (%)	Sample size (n)
Chemical engineering	756	18	66
Civil engineering	1342	32	117
Computer science	383	9	33
Electrical engineering	931	22	80
Mechanical engineering	812	19	69
Total	4,224	100	365

Source: own survey, 2020

Table 2: Distribution of Demographic Character of participants.

Variable	Mean+SD	N(%)
Age	21.85 ± 1.75	
sex	male	275(75.1)
	female	90(24.9)
Computer skills	Basic	246(67.3)
	Intermediate	85(23.4)
	Advanced	34(9.3)
Academic program	Bachelor	351(96.1)
	Master	14(3.9)
	PhD	0(0%)
Presence of Practical lesson	Yes	78(21)
	No	287(79)

Source: own survey, 2021

Table 3: Distribution of students' total satisfaction with onlinel learning.

Total satisfaction level	Frequency (%)
Not at all	318(87)
low	22(6)
medium	15(4)
high	3(11)
Very high	0(0)

Source: own survey, 2020

Table 4: Correlation between satisfaction score and questionnaire dimension.

Satisfaction factors	Total satisfaction score	
	r	p
platform availability of system	0.32	0.032
Designed content	0.19	0.09
Interactive learning activities	0.61	<0.001
quality of service	0.29	0.047
Teacher evaluation	0.06	0.28

Source: own survey, 2021

CONCLUSION

From the above analysis, we draw the conclusion that among the five major factors, designed content had no direct influence on user total satisfaction. Also, the above results show that, the influence index of user satisfaction mainly involved service quality. Users mainly hoped that the platform could meet their learning needs and provide necessary functions for learning; however, they did not have high expectations for the interface design of the platform.

REFERENCES

1. Shereen MA, Khan S, Kazmi A, Bashir N, Siddique R. COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. *J Adv Res.* 2020;24:91.
2. Di Gennaro F, Pizzol D, Marotta C, Antunes M, Racalbuto V, Veronese N, et al. Coronavirus diseases (COVID-19) current status and future perspectives: a narrative review. *Int J Environ Res and Public Health.* 2020;17(8):2690.
3. <https://www.educationcannotwait.org/covid-19/>
4. The World Bank Education Global Practice Guidance Note: Online Learning & COVID-19 2020.
5. Sahu P. Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus.* 2020;12(4).
6. "Guidance for Interruptions of Study Related to Coronavirus (COVID-19)," Federal Student Aid, Information for Financial Aid Professionals (IFAP) 2020.
7. Surry DW, Ensminger D. What's wrong with media comparison studies?. *Educational Technology.* 2001;41(4):32-5.
8. Head JT, Lockee BB, Oliver KM. Clarifying the Discussion of Distance Education Effectiveness. *Quarterly Review of Distance Education.* 2002;3(3):261-268.
9. For a discussion of institutions moving to pass/fail in response to COVID-19, see Allison Stanger, "Make All Courses Pass/Fail Now," *Chronicle of Higher Education* 2020.
10. Moore M, Lockee B, Burton J. Measuring success: Evaluation strategies for distance education. *Educause Quarterly.* 2002;25(1):20-26.