European Economic Letters
ISSN 2323-5233
Vol 13, Issue 4 (2023)
http://eelet.org.uk

Impact of Cybernetics – E-Learning Will Play an Important Role in the Globalization of Education

[1]Arifa Parvin, [2]Ayasha Akter Opy, [3]Adeeb Ahnaf

[1]Electromedical Technology, Dhaka Mohila Polytechnic Institute

arifadmpi@gmail.com

[2]Electro medical Technology, Dhaka Mohila Polytechnic Institute

Opy777gmail.com

[3]Architecture Technology, Bangladesh University of Engineering and Technology

adeebahnaf972gmail.com

Abstract

'Cyber' related to culture of information technology which deals with information in the digital world virtually. The Internet has influenced the 21st century to produce significant results for education virtually. Through the Internet, the world's various information and communication facilities are made available through interconnected networks using protocols. E-learning has become a very important tool in the education system today. So newly designed e-learning supports administration and technology. Cybernetics is a science of communication like social media posts, cartoons and newsletters etc. and automatic control systems where the basic principle is regulations through control and feedback between both machines and living things.

E-learning has become one of most concerned paths to acquire expected knowledge through internet. Average people performed learning moderately well on instruction by online. It is very important to design a fruit full e-learning platform for teaching, learning, and administration. This paper proposes a new method to design an e-learning platform by combining based on cybernetics mechanism.

Here the concepts in cybernetics with respect to positive thinking which are explaining thinking skills that we should develop and practice to achieve optimum results in the process of e-learning and evaluation by introducing a new branch of science through control and feedback. The expansion of cybernetics which became the new ideal of control and operation for the various social fields of communication. Through this paper the desirable practices of Cybernetics is introduced based on the queries of e-learning are explaining to achieve optimum results.

Keywords: Impact, cybernetics, e-learning, globalization, education.

Introduction

Cybernetics represents to include analyzing their trends, seeking for generalizations and forecasting. Ideally an action plan for their implementation. In this research cybernetics known as Computing with Words is trying to do this process on computers. The origin of cybernetics and its feedback and communication, which suggest that e-learning is fundamentally about living.

This paper also introduces the cybernetic ways of thinking and for which it is also known as the science of effective learning. Now-a-days e-learning has become one of the ways for all classes of people to acquire their desired knowledge. As a developing country, a large portion of the education fund is earmarked to support e-learning strategies to enhance the education sector in Bangladesh. Because of this, important changes are taking place in our cultural system, especially in relation to education. As a starting point, we will now address the new educational ideals emerging from the so-called knowledge society.

The Internet is one of the most unique inventions of our time. Now we live in a historical era that differs from previous ones due to the supposedly infinite possibilities of communication, which are created through communication networks and supports around. There is no doubt that the Internet has created an entirely new way of circulating information,

European Economic Letters
ISSN 2323-5233
Vol 13, Issue 4 (2023)
http://eelet.org.uk

products, people and goods at a speed never seen before. It is this trend that establishes the Internet as a new social value based on its ability to handle large amounts of information.

Designing an efficient e-learning platform is very important for education, research and administration. This paper proposes a new approach through cybernetics to design an efficient e-learning platform by combining e-learning environments and cybernetics effects.

Objectives

1. Familiar of exchanging knowledge and experiences on e-Learning by cybernetics effects.
2. Know how every aspect of e-Learning education create the knowledge asset.

Methodology

A mixed method survey design was used for this study as this work was done to make the data collected more efficient and accurate. Face-to-face data has been collected from various educational institutions of Bangladesh using questionnaires and interviews. Qualitative and quantitative data were used by collecting this data with random sampling and purposive sampling. Data was being processes by Statistical Package for social Sciences (SPSS), MS Excel graphical application software. For purposes of this study, e-learning is operationally defined as a format used in learning when learners do not use whiteboard classrooms. The terms e-learning are used interchangeably throughout the article. To get cybernetics effects is an online based systems data is related to current situations.

Designation

Variables	Frequency	Percent
Teacher	41	20.5
Student	159	79.5
Total	200	100.0

Data Analysis Technique

Statistical Package for social Sciences (SPSS) and MS Excel graphical application software were used for data processed. Then outputs were analyzed. In this analyzed output data were presented by both tabular and graphical form. Data analysis process have given below:

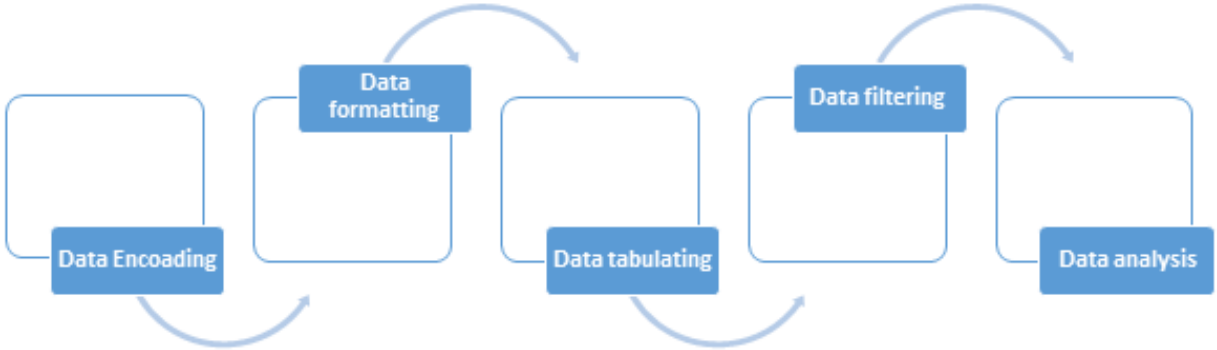


Figure: Data analysis process

Data were collected from different educational institutions of Bangladesh by mixed method survey design. The data is then pretested to validate the questions. From time to time this was guided by feedback from the supervisor. It mainly focused cybernetics effects of e-learning educations. Through this survey, various educational institutions have been contacted to know their current status and to get data.

European Economic Letters
ISSN 2323-5233
Vol 13, Issue 4 (2023)
http://eelet.org.uk

Data Analysis and Finding

Primarily sample are collected as mixed method questionnaires survey. Sample are collected by different educational institutions of Bangladesh. Here different opinions have been expressed about the present situations of cybernetics effect on e-learning educations.

Frequency Distribution:

Variables	Frequency	Percent
Bionics	27	13.5
Microchip	31	15.5
Neuroscience	32	16.0
Above all	110	55.0
Total	200	100.0

Table 1: Frequency Distribution of Cybernetics has been used in

Table illustrate that 13.5% people says that Cybernetics has been used in Bionics, 15.5% people says that Cybernetics has been used in Microchip, 16% people says that Cybernetics has been used in Neuroscience and 55% people says that Cybernetics has been used in all field.

Variables	Frequency	Percent
Online learning	23	11.5
Offline learning	1	.5
E- Learning	25	12.5
A & C	151	75.5
Total	200	100.0

Table 2: Frequency Distribution of the modern education system in Cybernetics

Statistics says that 11.5% people opinions about modern education system in Cybernetics are online learning, 12.5% people opinions are E-learning, is online learning, 75.5% people opinions modern education system in Cybernetics are online learning and E-learning both.

Variables	Frequency	Percent
Connect from anywhere	25	12.5
Save the time	9	4.5
Interact student's peer	3	1.5
Above all	163	81.5
Total	200	100.0

Table 3: Frequency Distribution of the positive impact on globalization of E-learning education

Regarding the statistics 12.5% people show about the positive impact on globalization of E-learning educations are it has been connect from anywhere, 4.5% people show about the positive impact on globalization of E-learning educations are it has been save time, 1.5% people show about the positive impact on globalization of E-learning educations are it has been interact student's peer and 81.5% people show about the positive impact on globalization of E-learning educations are it have been provided all facilities.

European Economic Letters
ISSN 2323-5233
Vol 13, Issue 4 (2023)
http://eelet.org.uk

Structured Interviews and Findings:

Interview designed to include:
A. Interviews location date and time,
B. Interviewer information
C. Interviewee information

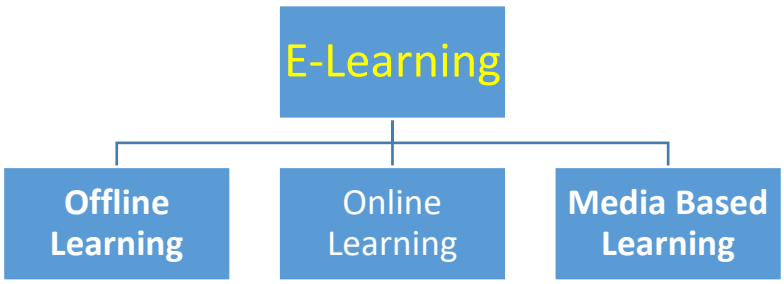


Figure 1: E-Learning Education

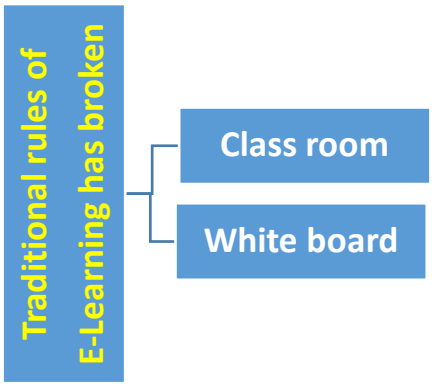


Figure2: Traditional rules of E-Learning has broken

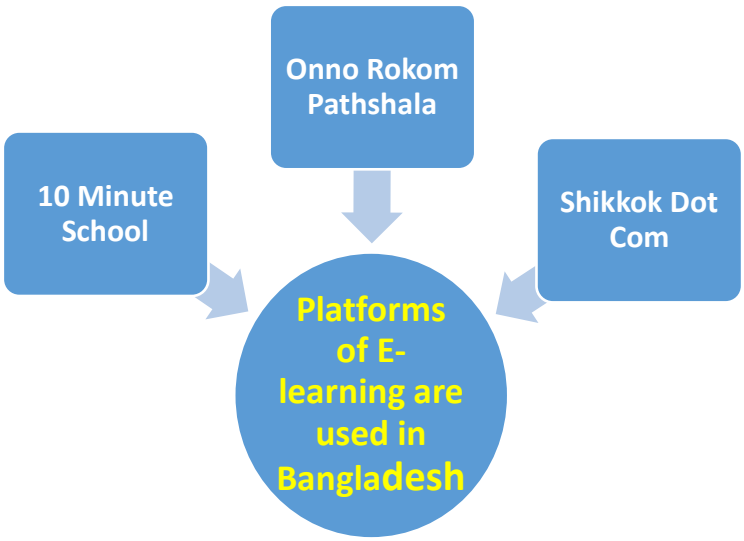
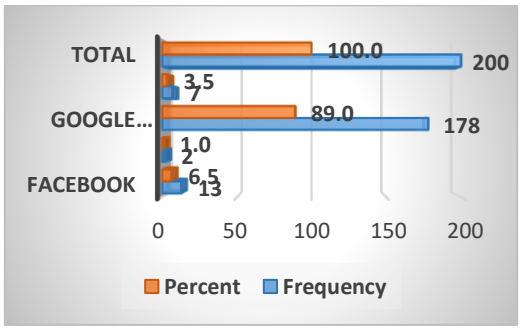


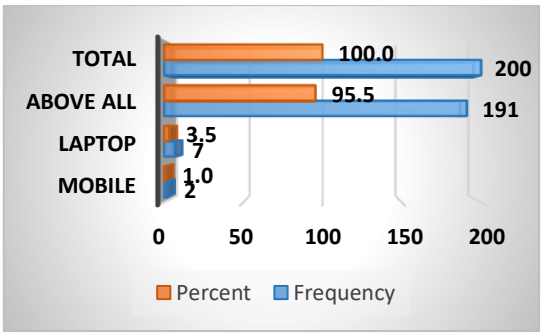
Figure3: Platforms of E-learning are used in Bangladesh

Graphical Representation:



Graph 1: Media is used for E-learning system

Regarding the statistics 6.5% people used as a media of E-learning system is Facebook, 1% people used as a media of E-learning system is Twitter, 89% people used as a media of E-learning system is Google Classroom and 3.5% people used as a media of E-learning system is none of them.



Graph 2: Device are used for E-learning

Statistics says that 1% people opinions about E-learning device is mobile, 3.5% people opinions about E-learning device is laptop, 95.5% people opinions about E-learning device is mobile and laptop both.

Conclusion and Recommendation

Cybernetics effect on e-learning educations is a global concern. Hence the need for consciousness level about e-learning educations. E-learning delivered to fulfill the online possibility of blending the borders of the classrooms. Currently online education is most standardized curriculum model that ignores the needs of whiteboard classrooms. It might be useful to individual programs of the academic learning. The study might also be useful to the educational institutions that want to fast-growing technology and the intensified financial austerity.
As cybernetics is the science that deals with e-learning with important contributions. This work may be helpful in treatment quite compatible with contemporary cybernetics. Educational institutions will be design and policy oriented and core curriculum will be systems science and cybernetics, hence increasing specialization in educational institutions is increasing the need. So the science that converges on research, focusing on the consequences of science in their field of information systems, the field of cybernetics, which has been developing since the late 1940s, provides a general theory of information and control.

References

1. L. Salamat & I. L. Saifi (2018). *Effects of E-Learning on Students Academic learning at university level* . Retrieved fromhttps://www.researchgate.net/publication/347512838_Effects_of_E-Learning_on_Students'_Academic_learning_at_university_Level
2. N. A. Saadi (2017). *E-learning and its impact on future generations.* Retrieved from : https://www.researchgate.net/publication/348607024_E-learning_and_its_impact_on_future_generations
3. J. Dasic & V. Sherifi (2012). *Evolution of e-learning.* Retrieved from : https://www.researchgate.net/publication/272237506_Evolution_of_e-learning

4. R. Holliman (2005). *An introduction to communicating science.* Retrieved from : https://www.researchgate.net/publication/242513678_An_introduction_to_communicating_science
5. S. Umpleby (2015). *A General Theory that includes Command and Control.* Retrieved from : https://www.academia.edu/35684585/Cybernetics_A_General_Theory_that_Includes_Command_and_Control
6. D. A. Novikov (2016). *Cybernetics from Past to Future.* Retrieved from : https://www.researchgate.net/publication/287319297_Cybernetics_from_Past_to_Future
7. C. Gershenson, P. Csermely & H. Knyazeva (2013). *The Past, Present and Future of Cybernetics and Systems Research*Retrievedfromhttps://www.researchgate.net/publication/256199484_The_Past_Present_and_Future_of_Cybernetics_and_Systems_Research
8. W. Cope & M. Kalantzis (2022). *The Cybernetics of learning.* Retrieved from : https://www.researchgate.net/publication/358379977_The_cybernetics_of_learning