The Strengths and Drawbacks of E-resources in Higher Education

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Review Article

ABSTRACT

The use of e-resources in higher education is inexorable. E-resources help students complete a variety of assignments and projects, and you can learn from other sources. While there are many other materials that are not important for education, one needs to be extremely careful with the resources because they require intense concentration. So, both educators and pupils must focus. E-resources perform by reinforcing higher education and accomplishing educational objectives. Higher education becomes enjoyable and interesting with flexible success through electronic resources. E-resources combine online and offline resources. Apart from that, e-resources improve teaching and learning and are helpful in research activities that improve learning outcomes. Review and pay attention to the advantages and some of the challenges of electronic resources in higher education. The review selected articles published from January 2015 up to March 2021. The articles about electronic resources in higher education were taken into consideration. The findings indicate that e-theses, e-dissertations, e-journals, e-books, and conferences are useful in higher education. The study found that electronic resources are very necessary for helping lectures in the teaching and learning process. A part of those resources helps with knowledge updates for the faculty members as well as the administration. Finally, e-resources are associated with databases that help students with writing. The study recommends training and orientation before learning research activities. Having good and powerful WI-FI is needed on campus for better access to resources. Unity and motivation for those who will be accessing resources continuously.

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1. INTRODUCTION

The learning in higher education undergoes some changes in the delivery system. Students need to concentrate on the uses of electronic resources in theory and research activities. Even though Print materials still support learning-resources and electronically from 1980s [1]. E-Learning resources are very important to the students in learning and teaching [2]. Electronic resources need to be accessed electronically with an electronic device. Electronic resources include electronic database journals accessed electronically [3]. E resources are very helpful to the research in higher education and in the community [4]. E-resources includes E-journal, E-newspapers, and E-book and the availability of internet and online database or online materials [5]. E resources are divided into two types. Online thesis and dissertation ,images music, E sounds, in house database E- references E-dictionaries, E-newspaper and encyclopedia resources and offline resources includes not in the computer, offline mail, dictionaries, CD-ROM, subjects guides and offline browsing [6]. Training is needed to students and teachers on how to use and access e-resources from the library [7]. On the same idea training to teachers and students on how to access and use database, e-journals, e-books need to be put into reflection [8]. Students are influenced by teachers or instructors and their level of knowledge in ICT [9]. At this time electronic resources is overtaking the printed materials in higher education [6]. The world is globally now students and teacher can access information at home via internet [10]. On the same idea [11]. E-resources improve research activities in higher education. E-resources, it helps students and teachers to achieve their educational goals in higher education [12]. Therefore, review gives out the benefits and concerns of e resources in higher education. The study will also encourage administrators in higher education and instructors as well as students to pay consideration on the uses of e resources.

2. LITERATURE REVIEW

E resources involve the training, knowledge delivery and feedback from the students and teachers [13]. The online resources need to have communication flow in relation to the content. The knowledge to be delivery fully to the students and finally the feedback in achievement of the students is required.

The learning in higher education would be perfect enough if the students and teachers interact with the online sources as well as the printed materials. Electronic media like telephone and television can be used in learning mathematics. This interaction builds good foundation of studying engineer resources in higher education. The materials used by engineers motivate students to use electronic resources for the aim of helping engineer on how to do their work accordingly [14]. On the other hand Students cannot manage to identify the different materials like journal, book to be used in education with their importance in education. There is the need for teaching learner in higher levels of education on how to access books online [15].

The influence and literacy in computer are very important for students in a way that it can help them to have knowledge on how to access e resources [16]. Students and teachers need to have the course on introduction to computer. This course can help both Undergraduate and postgraduate students to access online materials well.

The process of conducting a research or writing dissertation need knowledge on access the materials which can support the work and is should exported from the different journals with the uses of different searching engines [17]. The growth of electronic resources in higher education is at the pick now where by the students interact with online documents in the process of learning [18]. This is very interesting where by the presence of different search engines can be used to help the learners to access the different materials in higher education levels.

Medical students including the postgraduate and undergraduate agree that the uses of e resources give the update to their carrier [19]. Training on how to use e resources in the medical is very important [20]. The students need to be trained before get in contact with the uses of e resources. The uses of e resources need the knowledge to access as well as to manage the materials as what are the good materials and intended one. Slow downloading, virus problem and expensive on downloading the material for the undergraduate students is still a hinder higher the effectiveness of e resources. E resources are needed and most of the students

in higher learning know about the accessibility. The students from undergraduate and research scholar need to know the uses of e resources [21]. The need to know how to access e journals sounds, and on how to cite when it been used in the work.

The print materials and electronic resources are preferred to be used by the students in the higher education [22]. The agricultural process in the university requires the uses of print materials in the getting knowledge. The students suggest that it is very easy to access and using the materials. The process of downloading is very easy and simple it only needs the good network and the proper sources like computer and phones.

The skills and attitudes plus the availability of good infrastructures at the university influence the uses of electronic resources in learning [23]. Students need and expectation also support and influence the use of the online resources in teaching.

The engineering and technology students still agree with the use of e resources in the process of learning [24]. The learners accept that e resources are working with the combination of some tools like computers. There is the need of taking it necessary to use e resources in teaching.

Majority in university interact with IEEE Database, DELNET Database in libraries for learning and detaching [25]. The learning in university became smooth through the use of database in libraries but need to have training and demonstration process for the users. The users need to access well the research and in academic as well.

The lack of skills and illiterate to postgraduate's students towards the uses of electronic resources lead to underutilization [26]. Students can retrieve the database from the web but can cite as the print sources. It requires the knowledge for students in higher education on how to use online resources like e journals and dissertations.

The access of e resources requires full knowledge, electronic information and availability of strong infrastructures in most of African countries [27]. The training for the staff members at the university is very necessary. The library should support the researchers to strengthen the research writing. The positive feedback from the library is needed for encouraging researchers on how to access online resources.

Collaboration in online information and libraries from the different university it is very helpful [28]. The sharing of information can shape the researchers and teachers on how to use the online resources in a proper way. The process of accessing the information for research and for teaching. The government supports are very important and needed to the access towards online resources. The students and faculties are preferred using the electronic resources which are available in present digital era [24]. Resources are good in facilitating education in higher learning. The use of e journals can be accessed at any place as long as there is internet can be home, campus, and library. The resources are saving cost, and availability in support learning process in higher level of education.

Electronic resources are supporting in making learners easy to access learning [29]. Teachers and student's awareness, training programmer and network issues should be considered in the use of resources. The institution needs to help students, and researchers with the essential factors on the uses of e resources.

The review highlights the concept of e resources, benefits concern and challenges in higher education.

3. CONCERN OF E RESOURCES

Electronic resources concern with supporting higher education through the use of online resources. Three things to be taken into consideration are available of e resources; training and infrastructures [4]. Faculties should be able to access different types of e resources, knowledge and awareness on the uses of e resources [30]. Electronic resources should support teaching and learning as well as research activities [31].

The proper training and orientation should be Provided to students and teachers on how to use resources from the library [8]. Teachers need to have awareness, concern the assignment on how to access internet [1]. There is the need of understanding the relationship between the need of evaluation ability and utilization of e resources [32].

4. METHODOLOGY

The study uses Google Scholar to conduct a literature review and locate papers and other resources in higher education. The articles range from 2015 to 2021. Conference papers and dissertations were included in a nutshell. The review of the articles based on the different universities from different countries The countries, like Nigeria, Bangladesh, India, Kenya, and Turkey; Zimbabwe; Ghana; Tanzania; Lincoln; and South Africa.

The Table 1 shows the findings related to the review. The findings of the review come from different parts of the world. The findings were reported in a positive way and expressed concern with the use of electronic resources in higher education. This is revealed in the Table 1. The Table 1 shows the year and the author, as well as the place where the study was done and the findings obtained. The review comes with different types of online resources, like electronic journals, books, and dissertations. Journals and conferences are mostly used in teaching, learning, and research.

Table 1. Review of the findings in Blended Learning Models

Author and year	Place	E resources	Findings
Pinigas, Cleopas and Maxwell [33]	Zimbabwe	e journals books,	-contribution in teaching and learning process and these e resources are cheap.
Kumar and Anjaiah [34]	Osmania university	e journals	-preparing project and in teaching and learning process
Haque and Gausul Hoq [12]	Bangladesh	E journals	-Help in research activities and in academic goals.
Yamson, Appiah and Tsegah [35]	Ghana	E journals books	-Help faculties in knowledge update and in teaching and learning process. There is a need of combine together printed and e resources.
Derkach [36]	Ukraine	E journals and e books	-effective teaching and learning in chemical specialties.
Kumar and Singh [1], KJ and Sornam [37], Poompavai and Muthumari [38], Trimukhe [39], Rudraksha, Kona and Chagari [24],	India	E journals and e books	-used in assignment personally by students and teachers. -used in research activities by students and teachers -used in teaching and learning. -The uses of databases like IEEE, DELNET In academic and research
Al-Alawi and Noor [40]	Oman	E-Journals and e books.	-used in teaching and learning and research activities.
Devi and Keshava [4]	Lincoln	E journals and e dissertation	-used in teaching and learning process in medical school.
Kanori, Odundo and Inyega [31]	Nairobi Kenya	E-Journals, e books.	-used in teaching and learning process.
Marliana and Nurhayati [41], Yunus [42]	Indonesia	E journals ,e books, Online resources	-used in teaching and learning process as well as in research activities.
Murugan [23]	tamilnadu -India	E-Journals	-used in research and teaching in the classes
BURNETT [23]	African countries	E-Journals, database	-support in research writing and collaborations
Mallya and Sife [25]	Tanzania	E-journals	-Used in research activities and teaching
Budden [17]	South Africa	E- Journals, Books Conferences	-Used in writing the dissertations.

The findings reveal that electronic journals are frequently used in teaching and learning as well as in developing academic goals. The students and teachers use e-books in their teaching and learning. E-dissertation is used very rarely by teachers and learners during research activities.

The review gives out the benefits of electronic resources as used in teaching and learning, research activities, and motivation among students and teachers. The collaboration part is necessary for the use of electronic resources in higher education.

5. STRENGTH OF E RESOURCES IN HIGHER EDUCATION

i. E-resources help the students to achieve academic goals. Teaching and learning involve the use of different online resources [2]. There is the need of providing knowledge to students and teachers at the university on how to integrate e resources with the process of teaching for more success in learning [43]. Scholars manage to update their knowledge [44]. The students agree that e-resources are the one of the good way that helps them in the process of learning in higher education [2].

ii. E resources help in the process of learning and teaching as well as in the way of updating their knowledge in the university [44]. On the same idea e resources has bring a great changes in education and the functions of library [45]. The faculties prefer the uses of few members, students are aware with the use of e-resources and they access and use once in a week [46].

iii. E-resources satisfy the needs of the research scholar in the universities [5]. Students are aware and in touch with the E-journal, and E-book and the availability of internet and online database or online materials [7]. To support the idea [17] in order for dissertation to complete it need e resources to make it valid for readers. The dissertation needs references and citations from the different resources. This proves that you cannot write a good dissertation without having e resources.

iv. Computers facilitate the collaborative learning and give the students freedom to express their opinions. Also the communication becomes easy in teaching

and learning process [42]. These can be accessible using internet with different platforms for sharing ideas.

6. DRAWBACKS OF E RESOURCES

i. Poor infrastructures, the additional of work load, and most of users fail to access the sources as well as the network connectivity still hinder the use of e resources in higher education. Most of the students fail to use because of lack of knowledge about the uses of e resources in learning process [47].

ii. Complications in search engines, lack of resources in library, the issue of anti-virus packages and training for students and teachers in teaching still challenges the uses of e resources in higher education [4]. The lack of unity among students and faculties is another challenge [38].

iii. The cost of resources and lack of knowledge among the users is a big challenge toward its application in teaching and learning in higher education. WIFI with higher capacity of data for the user to access it well. The users need to undergo training and orientation. These will help them to use resources well and accordingly

iv. Bonding teacher and students is increasing. The e resources became as the communication tools rather than a face-to-face communication among teachers and students. This still challenge the use of e resources in higher education [48-50].

v. The less of confidence among the students lead to fail to interact with the resources. The students need to have confidence towards the use of e resources in learning process [42].

7. CONCLUSION

E-resources perform by reinforcing higher education and accomplishing educational objectives. E-resources are very helpful for all of the students and teachers. It is very helpful for those who want extra materials and extra time to study. Higher education becomes enjoyable and interesting with flexible success through electronic resources. E-resources combine online and offline resources. Sounds, journals, and images E-music and E-sounds house database E- references E-dictionaries, e-newspapers, and encyclopaedia resources, as

well as offline e-resources, including offline mail, e-dictionaries, CD-ROMs, subject guides, and offline browsing resources, bring changes and overtake printed materials in higher education. E-resources improve the teaching and learning process, are helpful in research activities, and improve learning outcomes. The review focuses attention on the benefits and concerns of electronic resources in higher education. Some challenges facing human resources have been discussed in this work. The review is based on 13 selected articles published from January 2015 up to March 2021. The articles about electronic resources in higher education were taken into consideration. This current review suggests more concern should be paid to the use of theses and dissertations for studies. Training and orientation should be taken into consideration before learning about research activities. Having good and powerful WI-FI is needed on the campus for better access to electronic resources as well as unity and motivation for those who will be accessing electronic resources continuously.

8. RECOMMENDATION

i. Training on how to access and use electronic resources. Students and teachers need to be taught how to access information online without plagiarising ideas from different sources. Students need knowledge on which information is to be taken for the assignment and which information is not supposed to be taken. In short, students should be taught to avoid copying and pasting from online resources while doing work. The researchers and faculties need to understand how to access and use electronic dissertations, like citations, from the Web, which is different from printed materials.

ii. Information and communication technology should go together with readiness for both teachers and students. This helps in achieving academic goals. Encouraging students and teachers to use dissertation music and sounds. Teachers should be taught not to rely on resources like e-journals.

iii. Access to the internet. The need for WI-FI with quick speed for accessing information should be taken into consideration. The need for good network speed with alternative power is very important.

Students and teachers need higher education.

iv. Alternative power. There is a need at the university, like generators and solar power for extra power instead of depending on one source of power.

v. Orientation for students towards the use of electronic resources is very important.

vi. The need for administration support funds for the universities. This will support the presence of library resources for teachers and students. The availability of enough computers in the library is very important for accessing electronic resources.

vii. Collaboration between the different universities should be taken into consideration. This will help in sharing ideas about online resources and how to solve the challenges and problems facing their use.

viii. Motivation for teachers and students towards the use of electronic resources Universities should promote the use of electronic resources by giving motivation to students and teachers. Full information, electronic knowledge, and infrastructure are very necessary in higher institutions. This supports the use of online resources.

ix. There is a need to put together online resources and print materials for better education. The other review to be conducted is on the challenges faced by resources in higher education.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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