Awareness and Access of Open Access Resources by Teacher Educators and Student Teachers: Potential for Reflection

Uzma Shahzadi[*]
Bashir Hussain[**]

Abstract

Open access resources are considered to be the most valuable assets in the field of teaching, learning and research. Like other disciplines, the usage of open access resources by teacher educators and student teachers can be highly useful in teacher education. For this, it is expected from the teacher educators and student teachers that they must be acquainted of/with open access resources and know to access these resources. This study is, therefore, intended to explore the awareness of teacher educators and student teachers about the open access resources and to find out the extent to which teacher educators and student teachers access these resources. This study was descriptive in nature, the teacher educators and the student teachers at the Department of Education, Bahauddin Zakariya University, Multan served as a case. The population of the study was all regular teacher educators of the department and student teachers enrolled in B.Ed. (Hons.) and MA Education. Of 10 teacher educators, eight participated in study. Using cluster sampling, four classes were randomly selected as a sample out of six, representative of both programs. Of these four classes, 151 student teachers were selected as a sample. For collection of data, a questionnaire was developed, with Cronbach's Alpha reliability coefficient value of 0.84. Data were analyzed using descriptive and inferential statistics. It was concluded that majority of the teacher educators consider internet resources specifically HEC- Journals as an open access resource while majority of the student teachers consider books and internet as an open access resource. Teacher educators use internet to prepare their lectures, research and reflection while student teachers mostly use books as open access resource to prepare assigned tasks. It is recommended that an orientation about the use of open access resources may be the part of programs in teacher education departments.

Keywords: utilization, awareness, access, open access resources, reflection, teacher education.

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[*] PhD scholar, Department of Education, Bahauddin Zakariya University, Multan
[**] Assistant Professor, Department of Education, Bahauddin Zakariya University, Multan

Introduction

Open Access Resources [OAR] are the most valuable resources in the field of teaching, learning and research. In the era, when use of terms like learning organization, knowledge economy, knowledge management is getting popular, OAR play vital and most important role in making all the terms functional in their very own way. Pooling the resources and sharing the resources have given teaching and learning a boost towards sharing knowledge, competences and facing challenges of ever-changing world. Development of Web 2.0 has also boosted the process of development of digital databases and increased the provision of access to the users to these digital databases. This development has focused more on the accessibility options and utilization of OAR by the users. OAR are usually defined as the resources that are available online and can be freely accessed by users for their research, teaching, learning and sharing purposes. Rowlands and Nicholas (2006) stated that open access comprises three important features: i.e., it is accessible on internet; there are no financial or legal constraints to access these resources; and finally, authors use copyright only to keep the veracity of scholarly work and retain the ascription right. Open access journals [OAJ], also known as a "Gold Road" to approach quality content, research and scholarly work. Through the internet, these peer reviewed journals are made available free of any cost to the public (Harnad, 2005).

With an increased focus on research activities, utilization of OAR is also increased in the field of education. Many research studies have investigated awareness, access and utilization of OAR in various fields of life (Pelizzari, 2003). Researchers have also explored the impact of a variety of factors on the usage of open access resources. It is evident in literature that research studies explored that access and awareness of OAR also influence the choice of publication by researchers. Literature also provides information on the characteristics of open access resources. For example, Joshi, Vatnal and Manjunath (2012) explored that OAR have several characteristics i.e., scholarly publications are available free of cost; licensing restrictions and copy right issues are resolved; and online availability made access easy. Handling relevant information is easy, sustainable storage enhance the reliability of sources, providing and linking publications to any other research dataset used in writing the paper, full text scholarly and academic, equitable access is the address of open access resources and it is free to use by anyone, anywhere.

It is declared that open access resources are such type of resources that are available in real time for the use of readers and researchers of

any academic field. These resources also have copy right issues, but these are set free to use by users and authors authorize its reuse by acknowledging contribution of specific author in the specific area of knowledge (Antelman, 2004; McVeigh, 2004; Harnad et al., 2008; Lawrence, 2001). Open access contents usually exit in variety of format i.e., data, texts, soft wares, audio/video clips, multi-media projectors, scholarly material, research work and preprints. Open access journals also prefer to perform peer review procedures like paper journals and online traditional journals do for publishing an article and then they make the content available online for free. (Ewing, 2003). There are many challenges in open access that are still need solution. Present research only caters the need of knowing and exploring about the awareness and access of OAR by teacher educators and student teachers.

Address of open access resources is preservation of research work by lowering cost and enhancing the access to scholarly work. The cost involved in library management and publications is lowered by open access resources as these resources provide free of cost knowledge services for scholars and organizations (Warlick & Wughan, 2007). In Pakistan, almost every level of education is undergoing reform. Special focus is on teacher education that needs an address of research-oriented classrooms. Being a part of developing world, open access mode has influenced educational resources almost in every field of education. Higher Education Commission [HEC] offers a wide range of open access resources in terms of digital library, e books, and access to data bases. The current research is one of its kind as it provides an insight into the awareness of open access resources by teacher educators and student teachers and address the accessibility of open access resources.

Literature Review

There is vast literature about the awareness and access of open access resources. Research studies are conducted to understand the importance of OAR in different fields of life, especially in the field of education. Obuh and Bozimo (2012) conducted a study that explored the awareness and usage of scholarly open access resource publications by lecturers in the southern region of Nigeria. The theme of the study was to explore the use of OAR and also to answer the research question that how much utilization is available for academia. The study recommended that for creating the awareness that efforts should be made and provision of the access for the use of OAR should be enhanced by enabling enacting policies and providing infrastructure to access open access

resources. It is also recommended that open access archives with obligatory deposit of scholarly works also excel the access and use of OARs by faculty and students in a higher educational institute

Adebayo and Adesope (2007) conducted a study with title Awareness, access and utilization of ICTs by female researchers, this study. The study presented that female researchers are acquainted with ICT resources and they also know the access of Internet on their own. The study showed that respondents do not have sufficient access to IT resources. Study also reflected that ICT types looked-for by female researchers include; WWW., Word Processing, Spreadsheet, E- Mail, CDs/DVDs, Multimedia, computer, Web Design, Chatrooms and blogs.

Dhanavanda, Esmail and Nagarajan(2012) conducted a study on Access and Awareness of ICT Resources. This study concluded that almost all teachers daily visit the library and majority of them used to spend thirty minutes to sixty minutes in the library. It is also found that internet is used by the majority of the faculty members. The respondents use digital resources for their study, communication and research purposes. The study found that almost all the respondents learned using E- resources by taking up additional and external courses and guidance from their peers and other professionals. The respondents access the information on the Internet by using Google scholar and stated that internet is helping them to access latest and up to date information. The respondents declared that access is not a problem but searching relevant information and retrieval of such information is the main hurdle in using e-resources and they choose and prefer books. Library is visited by the respondents to collect material for their subject. The study declared that it is easy to access the material in the library because of the arrangement of reading material and they are satisfied and this is also the reason they prefer library over e-library.

Tyagi(2012) found that the majority of the respondents showed key interest in use of a range of databases like Web of Science, Science Direct, IEEE/IEE/IEL Online and the other online resources for variety of purposes that mainly include study, lecture preparation, research and reflection. Awareness about the availability of online journals was found satisfactory among users. Mostly accessed journals were online journals and used for research work and it was also found that most preferred format was PDF. There are many factors that may affect the use of scholarly online journals. Including these factors is the availability of resources and time spend to search for material from these journals. It also includes the financial factors that include the subscription rates needed to access these journals.

Asefeh and Nosrat (2007) conducted an investigation to explore the association between awareness and use of digital resources among students in Isfahan University of Medical Sciences. The study used descriptive survey method to explore the awareness and use of digital media. The results   showed that mostly students reflect awareness of e-resources and have used them. It was revealed that some were aware of offline availability of database and there were very few using them for their assignment preparations. It was also found that majority of the students were aware of online databases while few of them have utilized them. The study concluded that intermittent periodic orientation to the OAR and lack of acquaintance to the process of use of offline databases along with the availability of lesser terminals connected to the server are the main factors that students showed less use of offline databases. In the same way, low speed in connectivity and scarcity of hardware facilities to use digital resources are the common problems reported by the users (Asefeh &Nosrat,2007).

Frass and Gardner (2013) explored authors' views about OAR and issues related to the awareness and access of the OAR. A survey opinion poll was used to collect the data It was concluded that the participants think that open access journals present few benefits over other resources i.e., wider spread, higher availability, fastest publication than paid journals. Startlingly, devoid of awareness of such benefits, a little number and few authors showed their intent to have articles published in open access journals Another study conducted by Kaaba and Said (2015) presented that academia have a positive perception and a good knowledge about OAR. It was reported in literature that academic regularly use OAR for scholarly works, research and teaching/learning activities. Moreover, the findings of the study pointed out that female faculty members shown more likeliness to use OAR than the male faculty members. It is also explored that the faculty members have a highly positive perception of OAR and reflected a high level of awareness and use of OAR. The study also concluded that Presentation of seminars, Conference research reports, publication of research articles in research or academic journals is weakly associated with the faculty members' level of awareness and use of OAR.

Objectives

Key objectives of this study were as follows:
1. To find out the awareness of teacher educators about the open access resources.
2. To examine the access of open access resources by the teacher educators.
3. To examine the awareness of student teachers about the open access resources.
4. To examine the access of open access resources by student teachers.
5. To compare awareness and access of the open access resources by teacher educators and student teachers.
6. To compare awareness and access of the open access resources by male and female teacher educators and student teachers.
7. To compare awareness and access of the open access resources by teacher educators and student teachers.

Methodology

This study was descriptive in nature and teacher educators and student teachers at the Department of Education, Bahauddin Zakariya University, Multan served as a case. The population of the study was all regular teacher educators of the department and student teachers enrolled in B.Ed. (Hons.) and MA Education. Of 10 teacher educators, eight participated in study. Using cluster sampling, four classes were randomly selected as a sample out of six, representative of both programs. Of these four classes, 151 student teachers were selected as a sample. For collection of data, a questionnaire was developed, with Cronbach's Alpha reliability coefficient value of 0.84., both for teacher educators and student teachers. Tool was first validated by the literature, followed by experts' opinion. Tool was administered to 202 student teachers and 151 responded. Response rate was 74%. Tool was administered to 10 teacher educators, and eight of them returned questionnaire. The response rate for teacher educators was 80%. Data were tabulated and analyzed using SPSS version 22.

Findings

Data were analyzed by preparing an excel sheet and using SPSS version 22. Mean scores and standard deviation were calculated. Independent sample t-test was also used.

Table 1

Gender and Program Distribution of Sampled Teacher Educators and Student Teachers

	Gender				Program			
	Male		Female		MA		B.Ed.	
	N	%	N	%	N	%	N	%
Teacher Educators	3	37.5	5	62.5	8	100	8	100
Student Teachers	17	11.2	134	88.7	109	72.1	42	56%

Table shows that 37.5% male teacher educators and 62.5% female teacher educators participated in the study. All teacher educators are involved in teaching MA education program and 87.5% teacher educators are involved in teaching B. Ed (Hons.) program. A total of 11.2% male student educators participated in the study and 88.7% females participated in the study. From MA education program 72.1% participated and 56% from B.Ed. (Hons.) participated in the study.

Table 2

Description of Awareness of Teacher Educators about Open Access Resources

Resources	N	Mean	SD
Books	08	2.1	1.0
Journals	08	2.7	1.4
NP	08	2.9	2.0
TV	08	1.5	1.5
INT	08	3.1	1.2
E-Book	08	2.7	1.5
E-Journal	08	2.7	1.5
CP	08	2.9	1.4
Encyclopedia	08	2.5	1.6
CDs/DVDs	08	1.4	0.5
HEC -B	08	3.4	1.2
HEC-J	08	3.6	0.8

Table 2 shows that mean score (3.6) represents that majority of teacher educators perceive that HEC journals are open access resources. Table further reflects that mean score (3.4 and 3.1) for the HEC books and internet is also perceived as open access resources by some teacher educators. Table 2 also shows that CDs and DVDs are considered as

open access resources by few teacher educators (1.4).

Table 3

Access of Open Access Resources by Teacher Educators

OAR	N	Mean	SD.
Books	08	2.4	0.9
Journals	08	2.5	0.9
NP	08	2.1	1.7
TV	08	2.9	1.4
INT	08	4.4	1.1
E-Book	08	2.4	1.3
E-Journal	08	3.9	0.6
CP	08	1.4	1.1
Ency	08	1.4	1.1
CDs/DVDs	08	1.5	1.3
HEC -B	08	4.7	0.6
HEC-J	08	4.6	0.8

Table 3 shows that mean score (4.7,4.6) represents that majority of teacher educators perceive that HEC-books and HEC-journals are always accessed as open access resources. Internet resources (4.4) is also reflected as often accessed open access resource and E-Journals (3.9) are also perceived to access often as open access resources for the preparation of lectures, research tasks and reflection. Table also reflects that conference proceedings(CP) and encyclopedias are almost never accessed as open access resources by teacher educators.

Table 4

Awareness of Student Teachers About Open Access Resources

OAR	N	Mean	SD.
Books	151	4.3	1.3
Journals	151	2.7	1.6
NP	151	2.6	1.6
TV	151	2.7	1.7
INT	151	4.4	0.8
E-Book	151	2.9	1.4
E-Journal	151	3.9	1.1
CP	151	3.6	1.6
Ency	151	3.3	1.0
CDs/DVDs	151	2.3	1.7
HEC -B	151	3.6	1.5
HEC-J	151	3.3	1.5

Table 4 reflects   that mean score represents that majority of student teachers(4.4) perceive that books are the open access resources. Table also reflects that some student teachers considered journals (3.8), E-books and e journals (3.7, 3.7) also as open access resources.

Table 5

Access of Open Access Resources by Student Teachers

OAR	N	Mean	SD
Books	151	4.3	1.3
Journals	151	2.7	1.6
NP	151	2.6	1.6
TV	151	2.7	1.7
INT	151	4.4	0.8
E-Book	151	2.9	1.4
E-Journal	151	3.9	1.1
CP	151	3.6	1.6
Ency	151	3.3	1.0
CDs/DVDs	151	2.3	1.7
HEC –B	151	3.6	1.5
HEC-J	151	3.3	1.5

Table 5 reflects that mean score(4.4,4.3)represents that majority of student teachers perceive that internet and books are almost always accessed open access resource. Table 5 also reflects that e- journals, conference proceedings, HEC books and HEC journals with mean scores (3.9,3.6 and 3.6 respectively)   are sometimes accessed open access resources by student teachers.

Table 6

 Independent Sample t- test for Awareness of Open Access Resources

Participants	N	Mean	*df*	Sig.
Female Teacher Educators	5	44.20	6	.85
Male teacher Educators	3	43.33		

The results of table 6 presents that the significant value (p-value) for awareness of open access resources is .85 that is P>0.05. and it shows that there is no statistical significant difference between the awareness of female and male teachers about the open access resources. Table also reflects that the awareness of open access resources of female teachers is higher than that of male teachers.

Table 7

Independent sample t- test for Access of Open Access Resources by Teacher Educators

Participants	N	Mean	*df*	Sig.
Female Teacher Educators	5	40.2	6	.79
Male teacher Educators	3	41.6		

The results of table 7 presents that the significant value (p-value) for awareness of open access resources is .79 that is P>0.05. Which means that there is no statistical significant difference between the perception of access of open access resources by female and male teachers. Table 7, further shows that male teacher have slightly more access to the open access resources as compare to female teachers.

Table 8

Independent Sample t- test for Awareness of Open Access Resources of Student Teachers

Participants	N	Mean	*df*	Sig.
Female Student teachers	134	36.30	149	.2
Male Student teachers	17	39.06		

The results of table 8 presents that the significant value (p-value) for awareness of open access resources is .2 that is P>0.05 reflecting that there is no statistical significant difference between the awareness of female and male student teachers about the open access resources . Table reflects that the awareness of open access resources of male student teachers is higher than that of female student teachers.

Table 9

Independent Sample t- test for Access of Open Access Resources of Student Teachers

Participants	N	Mean	*df*	Sig.
Female Student teachers	134	39.43	149	.4
Male Student teachers	17	41.29		

.   The results of table 9 presents that the significant value (p-value) for awareness of open access resources   is ..4   that is P>0.05., means that there is no statistical significant difference between the   access   of open access resources of female and male student teachers. Table also reflects that male student teachers have slightly high access of the open access resources as compare to female student teachers

Table 10

Independent Sample t- test for Awareness of Open Access Resources of Teacher Educators and Student Teachers

Participants	N	Mean	*df*	Sig.
Teacher Educators	8	38.63	155	.5
Male Student teachers	151	36.51		

The results of table 10 presents that the significant value (p-value) for awareness of open access resources   is .5   that is P>0.05. Which means that there is no statistical significant difference between the awareness   of open access resources of teacher educators and student teachers. Table also reflects that teacher educators reflects slightly high awareness of the open access resources as compare to student teachers.

Table 11

Independent Sample t- test for Access of Open Access Resources of Teacher Educators and Student Teachers

Participants	N	Mean	*df*	Sig.
Teacher Educators	8	46.75	155	.05
Male Student teachers	151	39.46		

The results of table 11 presents that the significant value (p-value) for awareness of open access resources   is .05   that is $P<=0.05$. Which means that there is statistical significant difference between the access of open access resources of teacher educators and   student teachers. Table also reflects that teacher educators reflects   high access of the open access resources as compare to student teachers.

Conclusions and Recommendations

The study intended to explore the awareness and accessibility of open aces resources by teacher educators and student teachers. It is concluded that teacher educators perceive that internet resources are open access resources and they specify HEC-Journals and student teachers perceived that all mentioned resources are not open access resources and they specify that books and journals are the open access resources. It is further, concluded that internet as more accessible open access resource by both teacher educators and student teachers. Teacher educators reflected that they always access HEC books and journals to prepare their lectures for research tasks and reflection. While student teachers always access books and internet resources for preparation of their assignments and research tasks. The study also concluded that rarely accessed open accessed resources include, encyclopedias, CDs and DVDs, conference proceedings and e books by teacher educators. While less accessed open access resources by student teachers are CDs/ DVDs, newspapers and television programs. The study concluded that female teacher educators are more aware about open access resources than male teacher educators. It was, further, found that male teacher educators and male student teachers have more access to open access resources than female teacher educators and female student teachers. The study also concluded that teacher educators have more access to the open access resources than student teachers. The study recommended that there may be orientation of student teachers to the open access resources. Open access resources may be a compulsory part of referencing section of each and every course guide, scheme of studies and course outline. It is also recommended that teachers and supervisors may assign task to consult open access resources by the students. Institutes may consider having their own repositories to facilitate their students and teachers. Open access resources can be a potential reflective tools that can be used in classrooms teaching learning practices.

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