Journal of Educational Research and Public Policy
Volume-1, Issue-1, January-June 2024

URL : https://jerpp.org/volume1_issue1/jerpp_2024_1_1_3.pdf

Perception of Post Graduate Students towards Open Educational Resources: A Case Study

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Abstract

The present study is an attempt to know the perception of Post Graduate students towards open educational resources. The sample was comprised of 150 Post Graduate students of Rama Devi Women's University, Bhubaneswar by using simple random sampling technique. A Perception Scale was employed to know the perception of Post Graduate students towards Open Educational Resources with regard to the sharing of knowledge and learning resources, as well as adaptation and use of Open Educational Resources(OER). Results state a very positive and encouraging attitude of students towards the use and sharing of OERs. It also reveals the frequent use of Google, facebook and emails as platforms for sharing OERs. However, there is a need to motivate students to access more other OER enriched platforms for learning.

Keywords: Open Educational Resources, Post Graduate students, sharing knowledge

Introduction

Open educational resources (OERs) are freely accessible and openly licensed digital assets such as text and media which are used for the purpose of teaching, learning and assessment. These resources are also useful for doing research. The main features of those open materials states that anyone can legally and freely duplicate, utilize, adapt and re-share them. The term OER describes publicly accessible materials and resources for any user to use, re-mix, improve and redistribute under some licenses (Bell, 2021). The development and promotion of open educational resources is often motivated by a desire to provide an alternate or enhanced educational paradigm (Sanchez, 2021).

The OER movement originated from developments in open and distance learning (ODL) and in the wider context of a culture of open knowledge, open source, free sharing and peer collaboration, which emerged in the late 20th century (David,2006). The Massachusetts Institute of Technology (MIT) Open CourseWare project is credited with a global Open Educational Resources Movement after announcing in 2001 that it was going to put MIT's entire course catalogue online and launching this project in 2002 (Guttenplan, 2010). For students and educators OER give access to worldwide substance that can be limited without limitations, give them progressively decision about learning assets and make comprehensive learning networks (Butcher, 2011).

The term "open educational resources (OER)" was first adopted at UNESCO's 2002 Forum on the Impact of Open Courseware for Higher Education in Developing Countries (Johnstone, 2005). Accordingly, it states that OER is "teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions (Chiu, 2016).

The William and Flora Hewlett Foundation (2013) defines OER as: teaching, learning, and research resources that lies in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. It includes full courses, course materials, modules, textbooks, streaming videos, tests, software and any other tools, materials or techniques used to support access to knowledge. The foundation again states "Open Educational Resources are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.

The above definition clearly indicates that OER includes both digital and non-digital resources. According to Wiley and Hilton(2018), OER involves 5R activities which include the following:

1. Retain - the right to make, own, and control copies of the content (e.g., download, duplicate, store and manage),
2. Reuse - the right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video),
3. Revise - the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language),
4. Remix - the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mash up), and

5. Redistribute - the right to share copies of the original content, your revisions or your remixes with others (e.g., give a copy of the content to a friend).

The Organization for Economic Co-operation and Development (OECD) defines OER as: "digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research. OER includes learning content, software tools to develop, use, and distribute content, and implementation resources such as open licenses" (OECD, 2007).

These definitions have certain elements in common viz. they all cover use and reuse, repurposing, and modification of the resources; include free use for educational purposes by teachers and learners, and encompass all types of digital media (Pawlowski, Jrkkalainen, Gervacio, Nordin and Embi, 2014)

India as a creating nation appears to have a developing craving for receptiveness in instruction, including the creation and spread of OER. The nation has a National Repository of Open Educational Resources (NROER) for K-12 educational materials. In 2008, the Indian government's National Knowledge Commission (NKC) required a "national e-substance and educational plan activity'' to animate the creation, adjustment and use of OER by Indian foundations (Perryman and Seal, 2015).

In 2010, the Indira Gandhi National Open University (IGNOU) began a Post Graduate Diploma in E-learning (PGDEL) utilizing OER. The Commonwealth Educational Media Centre for Asia (CEMCA) has helped a few associations to create content utilizing Wiki Educator, while IGNOU's Staff Training and Research Institute of Distance Education (STRIDE) in 2008 utilized online wiki preparing aptitudes to create self-learning materials for distance instruction. Few other OER initiatives in India include the following:

NMECIT: National Mission on Education through Information and Communication Technology is a centrally sponsored scheme to leverage the potential of ICT, in providing high quality personalized and interactive knowledge modules over the internet/intranet for all kind of learners in higher education in anytime, anywhere mode. This project requires all the universities to be connected with National Knowledge Network (NKN) and the colleges with broadband connectivity.

SHAKSHAT: A landmark initiative of the Ministry of Human Resource Development (MHRD), it aims at developing a One Stop Education Portal for addressing all the education

and learning related needs of students, scholars, teachers and lifelong learners. **NPTEL:** NPTEL is a joint initiative of IITs and IISc that provides e-learning through online Web and Video based courses in engineering, science and humanities streams.

EKLAVYA: Launched jointly by IIT, Bombay and IGNOU on 26th January, 2003, the project aims at a free exchange of knowledge and ideas by placing all the relevant academic material in the Open Source. The project has developed an Open Source Educational Resources Animation Repository (OSCAR) to create a repository of web-based, interactive animations for teaching various concepts and technologies. Its major activities include e-GURU, e-OUTREACH and e-CONTENT programmes.

OSCAR: OSCAR (Open Source Courseware Animations Repository) is an initiative of IIT Bombay to build a large repository of web based interactive animations for teaching and learning of scientific and technological concepts.

E-Grid: Launched by IIIT, Kerala and supported by the MHRD, E-Grid portal has been intended to increase and facilitate access to education resources by the educational community and to facilitate collaboration, sharing of knowledge and best practices to improve the quality of education and learning.

Review of Literature

Various studies found a significant positive correlation between OER and student achievement (Grewe and Davis, 2017). Annand (2018), Sulisworo, Sulistiyo and Akhsan (2017), Weller and Pitt 2015). Perryman (2016) found that OER can give women a voice, access to information and education, and the opportunity to connect with peers and train others. The finding of the study by Ganapathi (2018) revel that the use of OER allows for greater distribution of learning material across different cultural and linguistic settings, particularly in rural and remote regions, at the same time, the study warn against the adaptation and pedagogical barriers of OER into societies where traditional modes of education are established and trusted.

Studies on attitude and perception of distance teachers towards OER conducted by Venkaiha (2008), Ganapaty and Jong (2015), Grissett (2017) and Panda (2017) reveal a positive attitude towards the use and sharing of OER. However, studies by Hurt (2013) indicated that OER were not always accessible and usable. Ozdemir and Bunk (2015) reveals that teachers perceive the use of OER as a mean to bring improvement in students' learning.

Studies conducted by Jhangiani and Hendricks (2016) and Islim and Koybasi (2016) found that faculty were more likely to adopt and create OERs. Teachers were using OER for ideas, to supplement existing coursework, and to prepare for teaching. The barriers to the use of OER in Higher Education in Tanzania was found out by Mtebe and Raisamo (2014) who showed that lack of access to computers and the Internet, low Internet bandwidth, absence of policies, and lack of skills to create and/or use OER are the main barriers to the use of OER.

Rationale of the Study

Open Educational Resources (OER) is considered as one of the most innovative teaching and learning practices as well as cost-effective mechanisms to improve the quality of education by optimising the use of available resources. OER can be used by any institution to improve their cost-efficiency. They have the prospective to transform teaching and learning practices in all educational settings. They can be used to reduce time to develop courses and programmes, facilitate knowledge sharing, preserve and disseminate indigenous knowledge, and improve educational quality at all levels (Kanwar, Kodhandaraman and Umar, 2010).

For teachers and students, OER (i) provide access to global content that can be localised without restrictions, (ii) give them more choice about learning resources and (iii) create inclusive learning communities (Butcher, 2011). OER also allows teachers to produce material that is adapted for their classes. Where most textbooks will have their strengths and weaknesses, OER material allows faculty member to pull only strong material into their class. Along with presenting one's own material, OER gateways also allow materials to be modified by other faculty around the world.

Open Educational Resources have become significantly important in education systems across the world. However, since the literature's lack of studies investigating students' perception towards OER in Indian set up, this study may provide useful results for the literature especially showing how students perceive OER in Indian context.

Objectives of the Study

The study was carried out with the following objectives

1. To find out the Open Educational Resources used by students to supplement lecture notes.
2. To explore the platforms used by students to share knowledge with peers.
3. To study the perception of Post Graduate students towards Open Educational Resources with regard to :

a) Sharing of knowledge and learning resources,
b) Adaptation and use of OER,

Research Questions

1) What Open Educational Resources are used by students to supplement their lecture notes?
2) What platforms are used by students to share knowledge among peers?
3) What are the Perception of Post Graduate students towards Open Educational Resources with regard to knowledge sharing, adaptation and use, quality and motivation?

Methodology

The sample constituted 150 Post Graduate Arts students of Rama Devi Women's University selected by simple random sampling technique. A Perception Scale for students was developed by the investigator. It was a five point scale consisting Strongly Agreed(SA) , Agreed(A) , Undecided(UD) , Disagreed(DA) , Strongly Disagreed(SD).

Table 1: Number of Students Responding to the Questionnaire

Economics	Education	Gender St.	Hindi	Home Science	English	Odia
24(96.0)	25(100)	23(92.0)	22(88.0)	14(56.0)	20(80.0)	22(88.0)

Numbers and percentage of responses of students across Post Graduate programmes

Table 2: Resources Used by Students to Supplement Lecture Notes

	Never %	**Sometimes %**	**Often %**	**Very often %**	**Always %**
Wikipedia	7(4.66)	26(17.33)	27(18)	37(24.66)	53(35.33)
YouTube	10(6.66)	17(11.33)	28(18.66)	39(26)	56(37.33)
Journal Database	40(26.67)	74(49.33)	22(14.67)	20(13.33)	16(10.66)
Others (specify)	69(46)	52(34.67)	13(8.67)	14(9.33)	2(1.33)

The two major online resources used by students are Wikipedia and YouTube with 35.33 and 37.33 percent of students respectively claiming to use it for educational purposes.

Only 13.33% and 10.66% students use Journal Database very often and always respectively. The acquaintance of students with Wikipedia and YouTube may be the cause behind the use of these platforms. Students weren't very much well conversant with various journal databases which might be the reason behind its lesser use. Very few students use other OREs such as Open Courseware and online tutorials to supplement their lecture notes.

Percentage analysis is done to find out the perception of students towards sharing of knowledge and learning resources available online and the same is depicted in Table 3 given below.

Table 3: Perception of Students towards Sharing of Knowledge and Learning Resources

Sl. No	Statement	SA%	A%	UD%	DA%	SD%
1.	I feel happy using Open Educational Resources developed by other Universities/ Institutions.	56(37.33)	90(60)	4(2.67)	0	0
2.	It gives me pleasure if teachers adopts/adapts open educational resources .	74(49.33)	66(44)	8(5.33)	1(0.67)	1(0.67)
3.	I believe that sharing educational materials as OER will encourage others to do so as well.	84(56)	52(34.67)	11(7.33	1(0.67)	2(1.33)
4.	Sharing of educational resources increases my profile amongst peers and others.	63(42)	74(49.33)	6(40)	5(3.33)	2(1.33)
5.	Sharing enhances my confidence as I see myself in part of larger community.	79(52.67)	56(37.33)	12(8)	29(19.33)	1(0.67)
6.	Teachers should use OER developed by other institutions during their lectures.	98(65.33)	39(26)	9(6)	3(2)	1(0.67)
7.	My university should share Open Educational Resources for free with other institutions.	99(66)	30(20)	12(8)	4(2.67)	5(3.33)
8.	I collaborate with peers in accessing OER.	59(39.33)	68(45.33)	17(11.33)	5(3.33)	1(0.67)

SA=Strongly Agree, A=Agree, UD=Undecided, DA=Disagree, SD=Strongly Disagree

Majority of the students have given a very positive response towards the sharing of OER and believe that such sharing would enhance their confidence and make a space for them in their community as well as among their peers. Few students who claimed not to share learning resources might be concerned about producing a unique work that could reflect their effort and time taken to look for searching resources and preparing assignments. Students also reported that they collaborate with their peers in searching and retrieving resources online.

Table 4: Platforms used by students for sharing resources with peers

	Never %	**Sometimes %**	**Often %**	**Very often %**	**Always %**
Email	3(2)	9(6)	7(4.67)	30(20)	101(67.33)
YouTube	2(1.33)	8(5.33)	21(14)	65(43.33)	54(34)
Facebook	4(2.67)	4(2.67)	8(5.33)	55(36.67)	79(52.67)
Google+	4(2.67)	9(6)	12(8)	44(29.33)	81(54)
Twitter	40(26.67)	79(52.67)	19(12.67)	9(6)	3(2)
Others (specify)	87(58)	44(29.33)	7(4.67)	7(4.67)	5(3.33)

Table 4 reveals that 67.33 percent of students use email (always) to share resources with their peers and this is the highest reported mode for sharing, followed by Google and Face book with 54% and 52.67% students respectively reporting to use them always. This may possibly due to the wide use of these platforms by students and as such would use them more for educational purpose. The other networking site such as twitter and others did not score above 10.percent as choices for sharing resources with peers.

Table 5: Perception towards adaptation and use of Open Educational Resources

Sl. No.	Statement	SA%	A%	UD%	DA%	SD%
1.	I adopt OER for my learning as they fulfil my academic needs.	84(56)	43(28.67)	10(6.67)	9(6)	4(2.67)
2.	I am well versed in information and communication technologies (ICT) needed to adopt and use OER.	75(50)	63(42)	8(5.33)	4(2.67)	1(0.67)
3.	I am aware of various open licences available to allow others to reuse recourses.	69(46)	52(34.67)	13(8.67)	14(9.33)	2(1.33)
4.	OER saves time of students.	101(67.33)	30(20)	7(4.67)	9(6)	3(2)
5.	If OERs are appropriate in their content, I prefer to use them.	83(55.33)	49(32.67)	9(6)	7(4.67)	2(1.33)
6.	OERs assist the developing countries to have quality materials	.61((40.67)	65(43.33)	12(8)	7(4.67)	5(3.33)
7.	I access educational resources that have been peer-reviewed by experts.	57(38)	61(40.67)	19(12.67)	8(5.33)	5(3.33)
8.	OER gives me opportunities to learn new things.	95(63.33)	40(26.67)	7(4.67)	4(2.67)	4(2.67)
9.	OER provides access to best materials and teachers.	70(46.67)	64(42.67)	10(6.67)	4(2.67)	2(1.33)

The above table shows a consistent agreement among students towards the adaptation and use of OER with 63.33% of students strongly believing that it gives them opportunity to learn new things whereas 46.67% students strongly agree that it provides them access to best learning materials. As perceived by students, they use OERs for learning purposes because it saves their time. Students' efficiency in information and communication technologies and their awareness of various open licences may be the responsible factors behind such positive attitude of students towards the use of OER.

Policy Implications

Educational policies should emphasize integrating OER into formal and informal learning environments, encouraging both students and teachers to make full use of these resources.

Enhance ICT Skill Development : Policymakers should prioritize the development of ICT skills among students through specialized training programs, ensuring they are capable of accessing and utilizing diverse OERs, including international platforms.

Promote Teacher Involvement in OER Adoption : Teachers should be encouraged and supported through policy to play an active role in motivating students to adopt and engage with OERs, ensuring they become part of the educational culture.

Collaboration with Technology Providers : Educational institutions and policymakers should work with technology providers to simplify access to OERs, ensuring that the platforms remain user-friendly and accessible to students with varying levels of digital proficiency.

Conclusion

Findings of the study reveal that students do recognise the significance of open resources for the purpose of education and believe that its use and sharing would create a place for them among their peers. Students also believed that the technologies used for OERs are simple and easy to use and it should be made available to public free of cost. However, efforts should be made by teachers, policy makers and other stake holders of education to enhance the ICT skills of students so that they can access various OERs (least used by them) available at international level.

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