

Use of Open Educational Resources in Higher Education Institutions in Telangana

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Abstract

The Present study "Use of Open Educational Resources (OER's) in Higher Education Institutions in Telangana" is concentrating the availability of Open Educational Resources initiatives in India & abroad. How to locate the OERs, purpose of usage of OER's, advantages and disadvantages of OER's in autonomous Government Degree Colleges in Telangana.

Keywords: Higher Education, Educational Resources & Open Educational Resources.

INTRODUCTION

World wide, open educational resources (OER) have come up as a very useful medium in the fields of education, research and training. The concept of the OER came into existence in 2002 during a conference hosted by UNESCO. After which OER has travelled across the globe in different formats such as OER, Open Courseware (OCW), open textbooks, digital library, open access journal etc. With the basic motto to provide open access to knowledge, one thing that strikes about OER is that there is a lot of activity surrounding this concept. OER is considered as democratization of

knowledge and education. It believes in the concept of sharing and participation."¹

Open Educational Resources (OER): OER are teaching, learning and research materials in any medium that reside in the public domain and have been released under an open license that permits access, use, repurposing, reuse and redistribution by others with no or limited restrictions.²

UNESCO defines OERs as any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt, and re-share them. OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video, and animation (*Hoosen 2012*).

The use of open technical standards improves access and reuse potential. OER can include full courses/programmes, course materials, modules, student guides, teaching notes, textbooks, research articles, videos, assessment tools and instruments, interactive materials such as simulations and role plays, databases, software, apps (including mobile apps) and any other educationally useful materials.

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The term 'OER' is not synonymous with online learning, eLearning or mobile learning. Many OER while shareable in a digital format are also printable.³

NEED OF THE STUDY

Many higher education institutions are incorporating ICT into their management, administration of Library and information centers and educational programmes in order to serve their needs of students and faculty members. Now a day s Educational Resources (Books, Journals, Audios, Videos, PPTs, and Thesis Dissertations etc) are more cost effective. Now Open Education Resources (OERs) are available to all community of academicians with free of cost, quality content, prepared by standard institutions, flexible to access learning resources may access all over the globe. That's why the researcher is concentrating the study on Use of OER's in Higher Educational Institutions especially in degree colleges.

In the state of Telangana there are 19 Universities are offering higher education including state and central Universities. Some of the General universities, Technical Universities, Special Universities & language Universities. Nearly 133 Government Degree Colleges (Aided Also) are offering education to Under Graduate Students. Ten Government Degree Colleges are having Autonomous Recognition by University Grants Commission, Govt of New Delhi.

REVIEW OF LITERATURE

Alexandra Pounds & John Bostock (2019) in their article "*Open educational resources (OER) in higher education courses in aquaculture and fisheries: opportunities, barriers, and future perspectives*" The purpose of this study was to evaluate that the little OER materials exists for higher education in the aquaculture and fisheries sector, mainly due

to lack of awareness, institutional support, and technological structure, which are common barriers found in other sectors.

Bentley CM, Chib A (2016) in his article on "*The Impact of Open Development Initiatives in Lower- and Middle Income Countries: A Review of the Literature*" focused on availability and utilization of OER's developing and undeveloped countries in educational institutions. The main barriers to use are academic competition between institutions and educators, low awareness and availability of OERs and copyright policies, mistrust in OER quality, and technological limitations around adaptation and sharing.

Butcher N, Hoosen S (2012) in his article on "*Exploring the business case for OER. World OER Congress*" analyses on various open Educational initiatives all over the globe(especially European countries OER's), utilization rate and barriers also discussed in educational institutions.

Scope of the Study: The Present Study "*Use of Open Education Resources in Higher Education Institutions in Telangana*" is confined to Autonomous Government Degree Colleges in Telangana only. In the State of Tealangana Ten Autonomous Government Degree Colleges such as:

- Government City College, Hyderabad
- NG College, Nalgonda
- Government Degree College, Siddipeta
- SRR Government Degree College, Karimnagar
- Giriraj Degree College, Nizamabad
- SNRBJR College, Khammam
- Pingle Degree College, Hanamkonda
- Government Degree College for Women, Begumpeta
- Tara Government Degree College, Sangareddy
- MVS Government Degree College, Mahaboobnagar

is selected for the study. The study is between 2020 April to 2021 December only.

There are many number of Open Educational Resources are available in all over the globe. Some of the Indian OER' Initiatives Mentioned below

S. no	From India	Website
01.	National Programme on Technology Enhanced Learning (NPTEL)	https://nptel.ac.in/
02.	Study Webs of Active-learning for Young Aspiring Minds (SWAYAM)	https://swayam.gov.in/
03.	e-PG Pathshala	https://epgp.inflibnet.ac.in/
04.	CEC (Under graduate)	http://www.cec.nic.in/cec/
05.	The Spoken Tutorial	https://spoken-tutorial.org/

06.	Virtual Labs	https://WWW.Virtual Labs.com/
07.	Free and Open Source Software in Education (FOSSEE)	https://www.Free and Open Source Software in Education (FOSSEE).com
08.	Shodhganga	https://shodhganga.inflibnet.ac.in/
09.	VIDWAN	https://vidwan.inflibnet.ac.in/
10.	Talk to Teacher	https://www.iiits.ac.in/academics/digital-learning/talk-to-teacher/
11.	E-Yantra	https://new.e-yantra.org/
12.	AICTE Online Courses	https://free.aicte-india.org/
13.	National Digital Library of India (NDL)	https://ndl.iitkgp.ac.in/
14.	Echarya	http://eacharya.inflibnet.ac.in/vidya-mitra/
15.	E-Kalpa	https://icar.org.in/content/e-kalpa

Some of the OER' Initiatives from Abroad Mentioned below:

S. no.	OER' Initiatives from Abroad	Website
01.	Directory of Open Access Journals (DOAJ)	https://doaj.org/
02.	Directory of Open Access Books	https://www.doabooks.org/
03.	Open Access Thesis & Dissertations	https://oatd.org/
04.	Open Knowledge Repository -World Bank	https://openknowledge.worldbank.org/
05.	PubMed Central (PMC)	https://www.ncbi.nlm.nih.gov/pmc/?cmd=search
06.	Project Gutenberg	https://dev.gutenberg.org/
07.	HighWire	https://www.Free and Open Source Software in Education (FOSSEE).com
08.	Southern Connecticut State University	https://libguides.southernct.edu/openaccess
09.	AGRIS	http://agris.fao.org/agris-search/index.do
10.	ScienceDirect Open Access Content	https://www.sciencedirect.com/browse/journals-and-books
11.	AidData	https://www.aiddata.org/
12.	ILOSTAT	https://ilostat.ilo.org/
13.	Oxford Open	https://academic.oup.com/journals/pages/open_a
14.	Project Euclid	https://www.projecteuclid.org/librarians/lib_oa
15.	SpringerOpen Journals	https://www.springeropen.com/journals
16.	Taylor & Francis Open Access	https://www.tandfonline.com/openaccess/openjo
17.	edX	https://www.edx.org/
18.	Open Access Publishing at KAUST	https://library.kaust.edu.sa/newsitem/openaccesspublishing

OBJECTIVE OF THE STUDY

The Present study "Use of Open Educational Resources in Higher Education Institutions in Telangana" following objectives:

- To know the accessing the OERS in Selected Autonomous Government Degree College in Telangana.
- To findout the users preference on Locating OER's in Selected Autonomous Government Degree College in Telangana.
- To know the purpose of using OER's of Selected Autonomous Government Degree College in Telangana.
- To know the benefits of OER's in Selected Autonomous Government Degree College

in Telangana.

- To findout the Obstacles of OER's in Selected Autonomous Government Degree College in Telangana.

DATA ANALYSIS

Data collected through structured questionnaire by google forms. 1500 questionnaires were distributed to UG students, PG students & faculty members. 1260 (84%) questionnaires received from the respondents of Selected Autonomous Government Degree College in Telangana. The respondents are UG students PG Students & Faculty Members of Selected Autonomous Government Degree College in Telangana.

Table 1: Respondents of Selected Autonomous Government Degree College in Telangana.

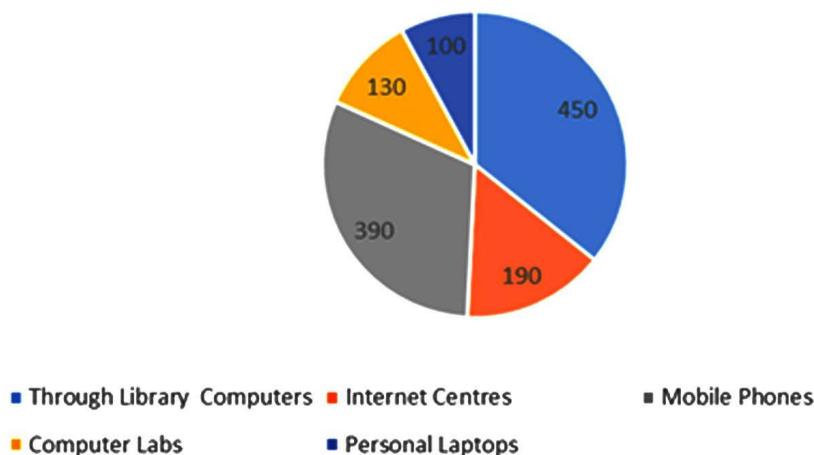
Sl. No	Name of the College	UG students	PG Students	Faculty Members	Total
1	Government City College, Hyderabad	90	40	50	180
2	NG College, Nalgonda	80	30	40	150
3	Government Degree College, Siddipeta	70	30	30	130
4	SRR Government Degree College, Karimnagar	70	25	30	125
5	Giriraj Degree College, Nizamabad	60	30	20	110
6	SNRBJR College, Khammam	60	35	25	120
7	Government Degree College for Women, Begumpeta	65	35	18	118
8	Tara Government Degree College, Sangareddy	55	25	30	110
9	MVS Government Degree College, Mahaboobnagar	68	20	21	109
10	Pingle Degree College, Hanamkonda	55	25	28	108
Total		673	295	292	1260

The above table show that the respondents of Selected Autonomous Government Degree College in Telangana. UG student’s highest number i.e. 90 are from Government City College, Hyderabad and least number i.e., 55 from Pingle Degree College, Hanamkonda & Tara Government Degree College, Sangareddy. PG Students highest number i.e. 40 are from Government City College, Hyderabad and least number i.e., 20 from MVS Government

Degree College, Mahaboobnagar. Faculty members highest number i.e. 50 are from Government City College, Hyderabad and least number i.e., 18 from Government Degree College for Women, Begumpeta. It is shows that the highest respondents i.e 180 from Government City College, Hyderabad and least number i.e., 108 from Pingle Degree College, Hanamkonda.

Graph 1: Accessing of Open Educational Resources Selected Autonomous Government Degree College in Telangana.

Accessing of OER's from Government Degree Colleges

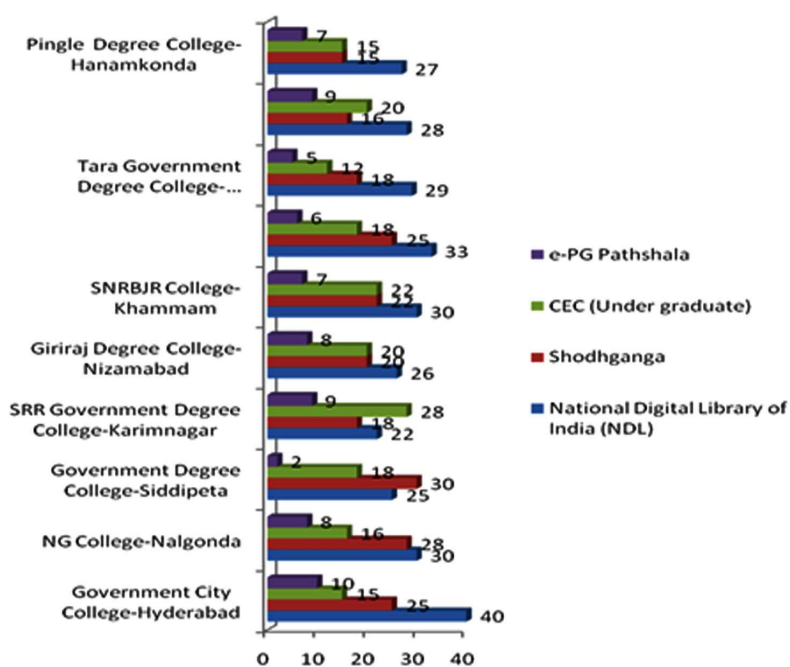


The above pie charts are showing that the Accessing of Open Educational Resources Selected Autonomous Government Degree College in Telangana. Majority i.e. 450 respondents are accessing OERs Through Library Computers only. Second majority i.e. 390 respondents are accessing OERs Through Mobile Phones only & Least number i.e., 100 respondents are accessing OERs

Through Personal Laptops only. It shows that majority of users are utilising the library computers accessing the OERS for their academic activities. Even pandemic period also 390 respondents are accessing OERs Through Mobile Phones means users are expressing that Mobile Phones playing crucial role in academic activities.

Table 2: Accessing the OERS by the UG & PG Students of Selected Autonomous Government Degree College in Telangana.

Sl. No	Name of the College	National Digital Library of India	Shodh Ganga	CEC (Under Graduate)	e-PG Pathshala	Swayam	(NPTEL)	DAOJ	DA OB	Open Access Thesis & Dissertations	Total
1	Government City College, Hyderabad	40	25	15	10	8	7	7	8	10	130
2	NG College, Nalgonda	30	28	16	8	6	4	3	7	8	110
3	Government Degree College, Siddipeta	25	30	18	2	3	3	5	6	8	100
4	SRR Government Degree College, Karimnagar	22	18	28	9	6	2	3	4	3	95
5	Giriraj Degree College, Nizamabad	26	20	20	8	6	3	2	2	3	90
6	SNRBJR College, Khammam	30	22	22	7	6	2	3	1	2	95
7	Government Degree College for Women, Begumpeta	33	25	18	6	7	4	2	3	2	100
8	Tara Government Degree College, Sangareddy	29	18	12	5	5	3	3	2	3	80
9	MVS Government Degree College, Mahaboobnagar	28	16	20	9	6	2	3	2	2	88
10	Pingle Degree College, Hanamkonda	27	15	15	7	5	3	2	3	3	80
Total		290	217	184	71	58	33	33	38	44	968



The above table & bar diagram shows that Accessing the OERS by the UG & PG Students of Selected Autonomous Government Degree College in Telangana. Largest Number i.e. 290 respondents are accessing Open Educational Resources from National Digital Library of India (NDLI). Second largest Number i.e. 217 respondents are accessing

Open Educational Resources from Shodhganga and least number i.e. 33 respondents are accessing Open Educational Resources from NPTEL & DAOJ. It shows that majority colleges are also accessing OERS from National Digital Library of India (NDLI).

Table 3.1: Accessing the OERS by the Faculty members of Selected Autonomous Government Degree College in Telangana.

Sl. No	Name of the College	National Digital Library of India (NDLI)	Shodhganga	CEC (Under Graduate)	e-PG Pathshala	Swayam	(NPTEL)	DAOJ	DAOB	Open Access Thesis & Dissertations	Total
1	Government City College, Hyderabad	12	18	10	—	03	—	2	—	05	50
2	NG College, Nalgonda	10	12	08	—	02	02	—	—	06	40
3	Government Degree College, Siddipeta	08	07	05	2	3	—	—	—	05	30
4	SRR Government Degree College, Karimnagar	07	08	—	2	3	05	05	—	—	30
5	Giriraj Degree College, Nizamabad	05	07	02	—	—	—	05	—	01	20
6	SNRBJR College, Khammam	—	05	02	07	05	—	05	01	—	—
7	Government Degree College for Women, Begumpeta	04	03	05	—	03	—	03	—	—	18
8	Tara Government Degree College, Sangareddy	06	09	—	3	4	03	03	—	02	30
9	MVS Government Degree College, Mahaboob Nagar	03	06	04	01	02	—	02	02	01	21
10	Pingle Degree College, Hanamkonda	09	04	06	5	—	—	—	04	—	28
	Total	64	79	42	20	25	10	25	07	20	292

The above table shows that Accessing the OERS by the Faculty members of Selected Autonomous Government Degree College in Telangana. Largest Number i.e. 79 respondents are accessing Open Educational Resources from Shodh Ganga for

their Research Works. Second largest Number i.e. 64 respondents are accessing Open Educational Resources from National Digital Library of India (NDLI) and least number i.e. 07 respondents are accessing Open Educational Resources from DAOB.

Table 4: Users preference on Locating OER's of Selected Autonomous Government Degree College in Telangana.

Sl. No	Name of the College	Following Suggestion from fellow Students	Following Suggestion from Academic Staff	Following Suggestion from Library Professionals	Using OER Search Engines & Repositories	Using General Purpose of Search Engines	Searching College/University Websites that offers OER'S	Total
1	Government City College, Hyderabad	40	50	40	15	20	15	180
2	NG College, Nalgonda	30	40	50	20	5	5	150
3	Government Degree College, Siddipeta	35	25	40	10	15	5	130
4	SRR Government Degree College, Karimnagar	25	20	30	15	20	15	125
5	Giriraj Degree College, Nizamabad	15	25	20	20	10	20	110
6	SNRBJR College, Khammam	50	15	10	25	8	12	120
7	Government Degree College for Women, Begumpeta	48	30	12	10	10	8	118
8	Tara Government Degree College, Sangareddy	32	28	10	12	10	18	110
9	MVS Government Degree College , Mahaboobnagar	28	12	32	18	8	11	109
10	Pingle Degree College, Hanamkonda	21	22	27	8	12	18	108
	Total	324	267	271	153	118	127	1260

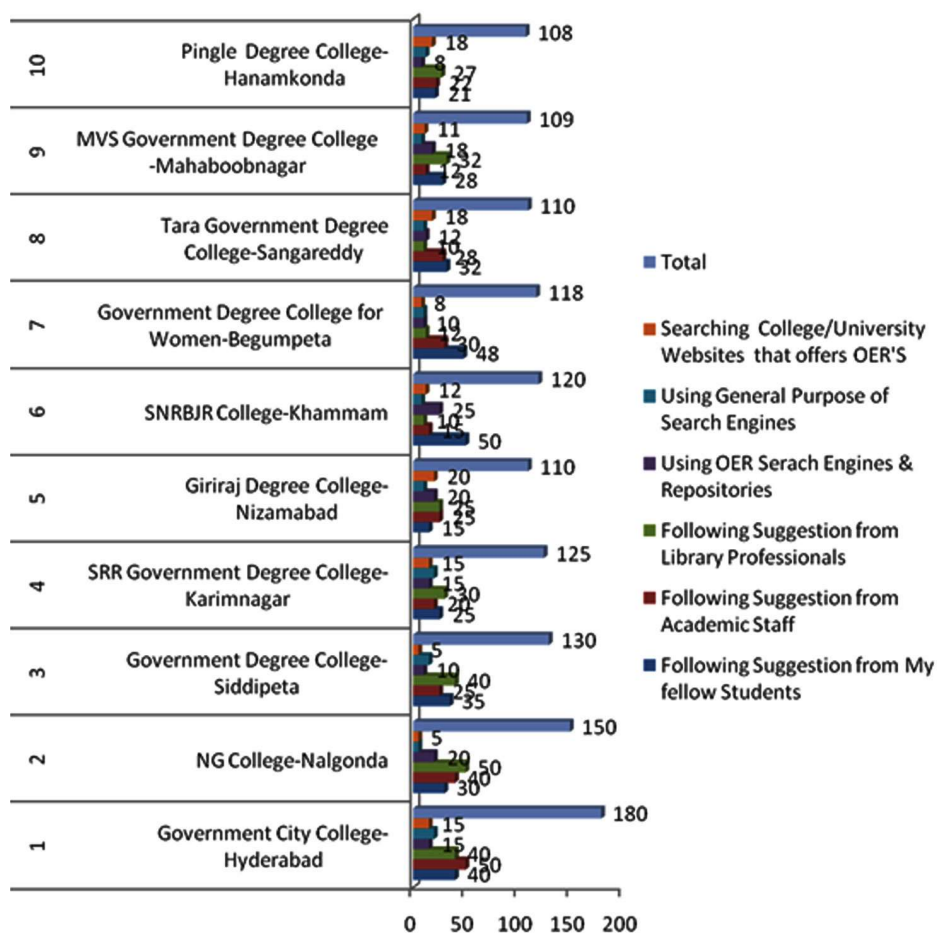
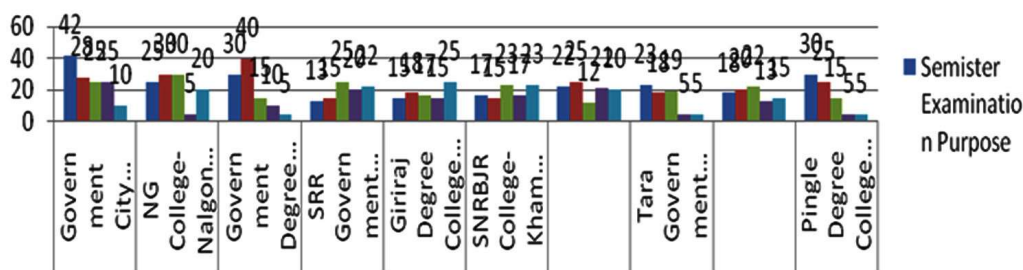


Table 4 The above table & bar diagram shows that respondent's preference on locating OER's of Selected Autonomous Government Degree College in Telangana. Majority i.e 324 respondents are locating OER's Following Suggestion from fellow Students, second mmajority i.e 271 respondents are locating OER's Following Suggestion from Library

Professionals and least i.e., 118 respondents are locating OER's Using General Purpose of Search Engines only. It shows that respondents locating OER's by suggestions of friends and Library professional's means LIS professional are playing key role to suggesting the respondents to access the OER's.

Table 5: UG & PG students purpose of using OER's of Selected Autonomous Government Degree College in Telangana.

Sl. No	Name of the College	Semester Examination Purpose	To Know the Current Developments in their Subjects	Project Purpose	Competitive Examination Purpose	Higher Education Purpose	Total
1	Government City College, Hyderabad	42	28	25	25	10	130
2	NG College, Nalgonda	25	30	30	5	20	110
3	Government Degree College, Siddipeta	30	40	15	10	5	100
4	SRR Government Degree College, Karimnagar	13	15	25	20	22	95
5	Giriraj Degree College, Nizamabad	15	18	17	15	25	90
6	SNRBJR College, Khammam	17	15	23	17	23	95
7	Government Degree College for Women, Begumpeta	22	25	12	21	20	100
8	Tara Government Degree College, Sangareddy	23	18	19	5	5	80
9	MVS Government Degree College, Mahaboobnagar	18	20	22	13	15	88
10	Pingle Degree College, Hanamkonda	30	25	15	5	5	80
	Total	235	234	203	141	155	698



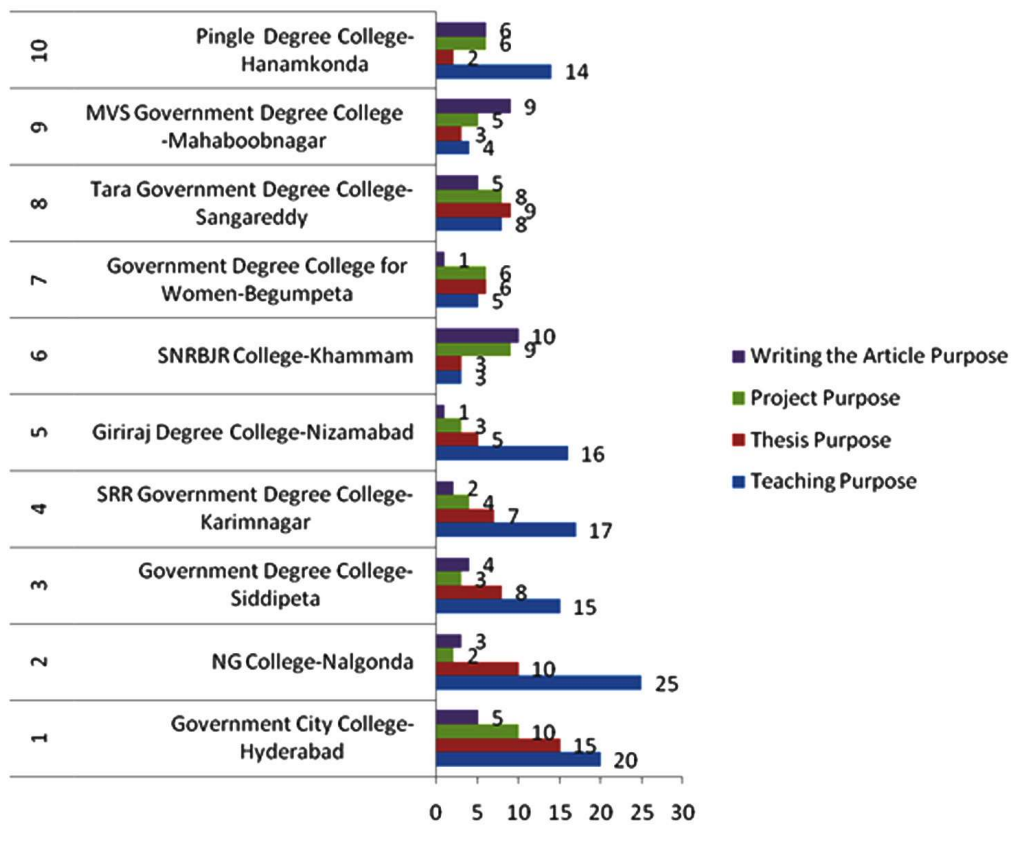
The above table & bar daigram shows that the UG & PG studnts purpose of using OER's of Selected Autonomous Government Degree College in Telangana. Highest number i.e. 235 respondents are using OERs for Semester Examination Purpose, second highest number i.e. 234 respondents are using OERs for To Know the Current Developments in

their Subjects and least number i.e., 141 respondents are using OERs for Competitive Examination Purpose. It shows that majority of students are accessing OERs for Semester Examination Purpose & To Know the Current Developments in their Subjects only.

Table 5.1: Faculty members purpose of using OER's of Selected Autonomous Government Degree College in Telangana

Sl. No	Name of the College	Teaching Purpose	Thesis Purpose	Project Purpose	Writing the Article Purpose	Total
1	Government City College, Hyderabad	20	15	10	5	50
2	NG College, Nalgonda	25	10	2	3	40
3	Government Degree College, Siddipeta	15	8	3	4	30
4	SRR Government Degree College, Karimnagar	17	7	4	2	30

5	Giriraj Degree College, Nizamabad	16	5	3	1	25
6	SNRBJR College, Khammam	3	3	9	10	25
7	Government Degree College for Women, Begumpeta	5	6	6	1	18
8	Tara Government Degree College, Sangareddy	8	9	8	5	30
9	MVS Government Degree College, Mahaboobnagar	4	3	5	9	21
10	Pingle Degree College, Hanamkonda	14	2	6	6	28
		123	68	55	46	292



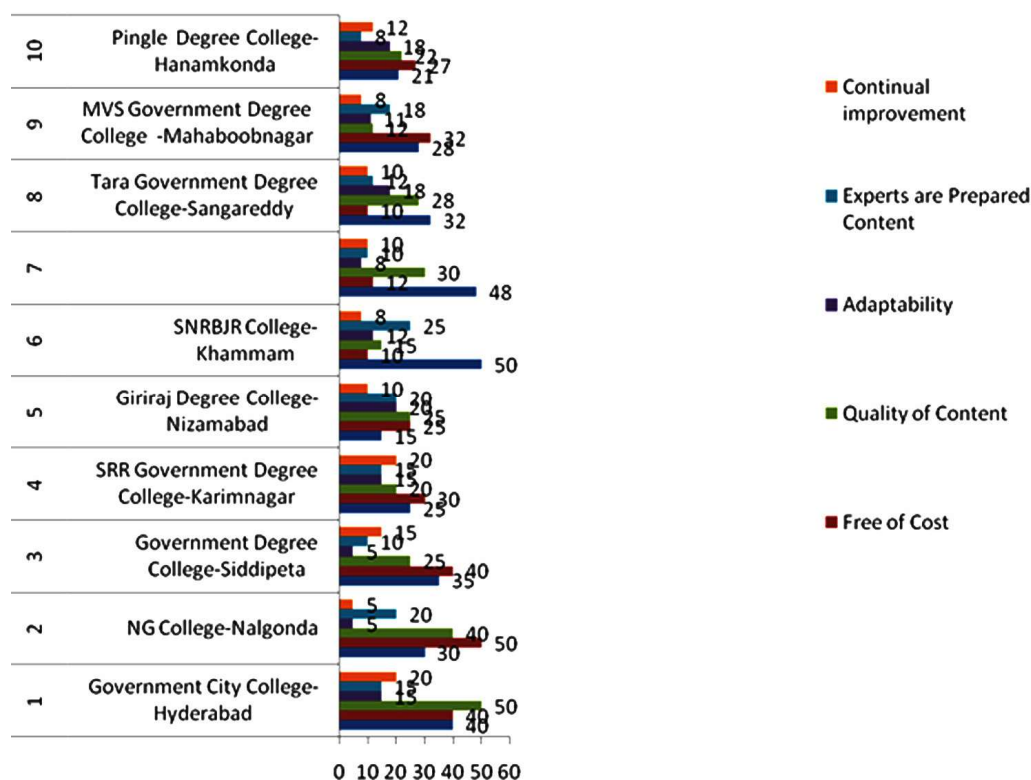
The above table & bar diagram shows that the faculty members purpose of using OER's of Selected Autonomous Government Degree College in Telangana. Highest number i.e. 123 respondents are accessing the OER's for Teaching Purpose and

least number i.e., 46 respondents are accessing the OER's for Writing the Article Purpose only. It shows that majority faculty members are accessing the OER's for class room teaching purpose only.

Table 6: Benefits of OER's in Selected Autonomous Government Degree College in Telangana.

Sl. No	Name of the College	Offered by Highly Recognised Educational Institution	Free of Cost	Quality of Content	Adaptability	Experts are Prepared Content	Continual Improvement	Total
1	Government City College, Hyderabad	40	40	50	15	15	20	180
2	NG College, Nalgonda	30	50	40	5	20	5	150
3	Government Degree College, Siddipeta	35	40	25	5	10	15	130

4	SRR Government Degree College, Karimnagar	25	30	20	15	15	20	125
5	Giriraj Degree College, Nizamabad	15	20	25	20	20	10	110
6	SNRBJR College, Khammam	50	10	15	12	25	8	120
7	Government Degree College for Women, Begumpeta	48	12	30	8	10	10	118
8	Tara Government Degree College, Sangareddy	32	10	28	18	12	10	110
9	MVS Government Degree College, Mahaboobnagar	28	32	12	11	18	8	109
10	Pingle Degree College, Hanamkonda	21	27	22	18	8	12	108
Total		324	271	267	127	153	118	1260



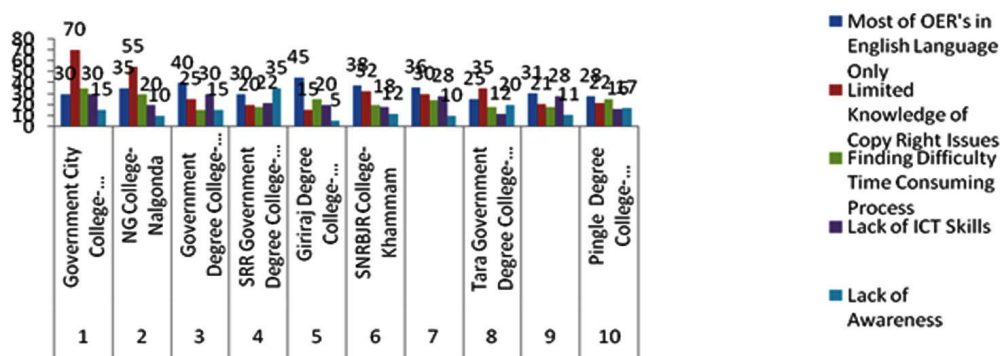
The above table & bar daigram shows that benefits of OER's in Selected Autonomous Government Degree College in Telangana. Highest number i.e. 324 respondents are says that the OER's are, second highest number i.e. 271 respondents are says that the OER's are and least number i.e., 118 respondents

are says that the OER's are Continual improvement. It shows that the majority of respondents expressed that OER'S Highly Recognised Educational Institution, Free of Cost and Quality of Content resources are accessing and utilizing the day to day academic activities.

Table 7: Obstacles of OER's in Selected Autonomous Government Degree College in Telangana.

Sl. No	Name of the College	Most of OER's in English Language Only	Limited Knowledge of Copy Right Issues	Finding Difficulty Time Consuming Process	Lack of ICT Skills	Lack of Awareness	Total
1	Government City College, Hyderabad	30	70	35	30	15	180
2	NG College, Nalgonda	35	55	30	20	10	150

3	Government Degree College, Siddipeta	40	25	15	30	15	130
4	SRR Government Degree College, Karimnagar	30	10	28	22	25	125
5	Giriraj Degree College, Nizamabad	45	15	25	20	5	110
6	SNRBJR College, Khammam	38	32	20	18	12	120
7	Government Degree College for Women, Begumpeta	36	30	24	18	10	118
8	Tara Government Degree College, Sangareddy	25	35	18	12	20	110
9	MVS Government Degree College, Mahaboobnagar	31	21	18	28	11	109
10	Pingle Degree College, Hanamkonda	28	22	25	16	17	108
	Total	318	315	238	214	155	1260



The above table and diagram shows that the Obstacles of OER's in Selected Autonomous Government Degree College in Telangana. Majority number i.e., 318 respondents are expressed that Most of OER's in English Language Only, second Majority number i.e., 315 respondents are expressed that Limited Knowledge of Copy Right Issues and least number i.e., 155 respondents are expressed that Limited Knowledge of Lack of Awareness. It shows that the majority of respondent's opinion are OER content in English language and copyright issues.

CONCLUSION

Higher Education is back bone to the any developed and developing country. Libraries are nerve of the any higher education institution either colleges or universities. The present Open Access movement many quality of education resources are accessing openly for learning, teaching and research also. These open educational resources are supporting and enhancing the quality of education by the quality of resources.

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