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Perception Of Research Scholars About OER In Relation To Subject Studies And Gender

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Abstract

The advent of technology in the realm of education system opens many opportunities for all. Advancement in technology give rise to the diffusion of knowledge in the era of 21st century which expedite the accessibility for users end. To contextualize and localize the resources in the field of vast arena of knowledge, Open Educational Resources plays a significant role to make the learning process easier and reachable to all.The study examined perception of Research Scholar about OER in Relation to Subject Studies and Gender was conducted on 45 M.phil and 45 Ph.D scholars from different streams such as Arts, Science and Commerce scholars of Ravenshaw University. Survey design was used to collect data from the participants by employing perception scale. Inferential statistics like Anova, t-test were used to analyze data. The main findings of the study revealed that **t**he mean perception of M.Phil scholars about OER (140.31) does not differ significantly from their counter part of Ph.D scholars (140.08). It was found that both M.Phil & Ph.D scholar have the same perception about OER. There was no significant difference found between male scholars (140.05)and female scholars (140.29) about OER. So that it was found that both the male and female scholar having same idea and knowledge about OER.The mean perception about OER of Science research scholars (149.50),Arts research scholars (139.60) and Commerce research scholar (131.50) differ significantly. It was revealed that Science research scholars are more positively oriented towards the perception of OER than the Arts and Commerce research scholars.

Background of the Study

The present study comes under the area of e-learning for development of students knowledge regarding OER. E-learning allows for personalized, just in time, up-to-date and user-centred educational activities (Haddad and Draxler, 2002). Open Education Resources (OERs) are the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes (UNESCO, 2002). The research conducted by Hilton(2016) found that OER are utilized and simultaneously save significant amounts of money, also students and faculty are positive regarding it., Ganapatya(2015) reported that 80% teachers said that they have heard open coursewares (OCWS), around 75% of the respondents are also familiar with the resources from youtube , most of the respondents are not familiar with

the resources available in e-learn(14.3%). **Rowell (2015)** found from his study that there were no significant differences between the independent variables and the 6 OER perception dimension. The motivation to learn perception mean was highest at 3.97 on 5.point likert type scale; the value of OER had the lowest perception dimension mean of 3.37.There was a significant weak negative relationship between the number of credit hour taken and the level of perceived cognitive learning dimension. **Robinson (2015)** found that students using open textbooks earned on average lower grades than students who used traditional textbooks. Students who used open textbooks enrolled in more credits than students using traditional textbooks. **Youssef &Dahmani, 2008**found that the purpose of the present paper is to examine the relationship between the use of information and communication technologies (ICT) and student performance in higher education. So far, economic research has failed to provide a clear consensus on the effect of ICT investments of student's achievement. **Kelly,(2014) found** that k-12 teachers stood out as finding OER relevant to improving their practices and emphasis on easy to use design to improve self-efficacy of OER.***Kursun, , Cagiltay,& , Can (2014)*** the majority of the participants' perceptions of OER benefits and their attitudes toward publishing their course materials were positive, legal issues were perceived as an obstacle to effective application. **Armstrong (2011)** found that role of communication in shaping students' perceptions and approach to learning and participants did not perceive the negative attributes of technology. student's approaches to learning appeared to be shaped by both the structure of the learning environment and the nature of assessments used in the online environment. Alves and et.al (2014) found that there is a positive, low, or very low correlation between students' IT knowledge and the features associated with digital educational resourcesand inexistent knowledge of the OER concept and of their uses as well as of th e existing OER platforms. From the above studies it conclude that most of the teachers are familiar with the OER and also using, sharing and repurposing by their own convenience. Most of the students have very good in ICT knowledge but abscence of existence knowledge of the OER concept and of their uses. For this the Investigator interested to conduct a study and explore the perception regarding different OER platforms, and creat awareness among students about using OER in relation to different subject studies for their own improvement.

Objectives of the study:

The present study has the following objectives:

1. To find out the perception of Research scholars pursuing higher education in arts, science and commerce stream about OER.
2. To study the perception of Research scholar of arts, science and commerce students about OER with reference to gender.

2.7. Hypotheses:

Based on the above stated objectives, the investigator has formulated following null hypotheses of the study are as follows:

1. Ho1. There exists no significant difference between M.phil and Ph.D scholars in their perception of oer.

2. Ho2. There is no significant difference by using OER between male and female Research scholars.

Methodology of the Study: (*Design & Sample of Study*)

The study used survey design to find out the perception of research scholars about Open Educational Resources (OERs). The population of present study consist of all the research scholars of Ravenshaw University, of Cuttack district, Odisha. The researcher selected 90 research scholars that is 45 (M.Phil and Ph.D) from Arts, Science and Commerce streams of Ravenshaw University. Stratified random sampling procedure was followed to conduct this study. The detailed description of the selection of sample has been given in table

Table-1

Stream wise and level wise distribution of participants

Stream and Scholars		M.Phil	Ph.D	Total
Arts	M	7	7	14
	F	8	8	16
Science	M	5	4	9
	F	10	11	21
Commerce	M	7	6	13
	F	8	9	17
Total	**=**	**45**	**45**	**90**

The tool was developed by the Investigator to study the perception of research scholars about Open Educational Resources (OERs). The series of items was developed based on the following dimensions: Availability, Accessibility, Quality, Adaptability and sharing. This scale contained likert type of items with five-point scale as- strongly agree (SA), agree (A), undecided (UD), disagree (DA), strongly disagree (DSA).

Result and Discussions:

The obtained data have been analyzed both qualitatively and quantitatively to arrive at conclusion. Here the investigator studied the tabulated materials to determine the inherent facts or meaning. The analyses and interpretation of data have been given in the following headings.

Perception of research scholars about Open Educational Resources (OERs) by level.

4.1.1 Perception mean score and sd of M.Phil and Ph.D. scholars about OER

Table-2.1. Summary of t-value for perception about OER between M.Phil and Ph.D. scholars

Class	N(90)	Mean	S.D.	Df	t-value
M.Phil	45	140.31	14.18	88	.081(No significant)
Ph.D.	45	140.08	11.63		

From the table 2.1, it is observed that the t-value of .081for perception about OER of M.Phil and Ph.D. scholars is not significant at 0.05 level of significance. Therefore, the null hypothesis "There is no significant difference in perception about OER between M.Phil and Ph.D scholar s" is retained. Hence, the mean perception of M.Phil scholars (which is 140.31) does not differ significantly than there counterpart Ph.D scholars(which is 140.08).

Table-2.2- **Mean perception about OER between M.Phil and Ph.D scholars in different dimension**

Dimension	Research scholar	N	Mean	Std.deviation	Std.Error Mean
Availability	M.Phil	45	28.51	4.003	.596
	Ph.D	45	28.93	3.822	.569
Accessibility	M.Phil	45	24.82	4.529	.675
	P.Hd	45	23.68	3.660	.545

Quality	M.Phil	45	27.51	4.703	.701
	P.hD	45	26.95	3.397	.506
Adaptability	M.Phil	45	38.06	4.350	.648
	P.hD	45	38.80	3.545	.528
Sharing	M.Phil	45	21.40	3.186	.475
	P.hD	45	21.71	2.951	.439

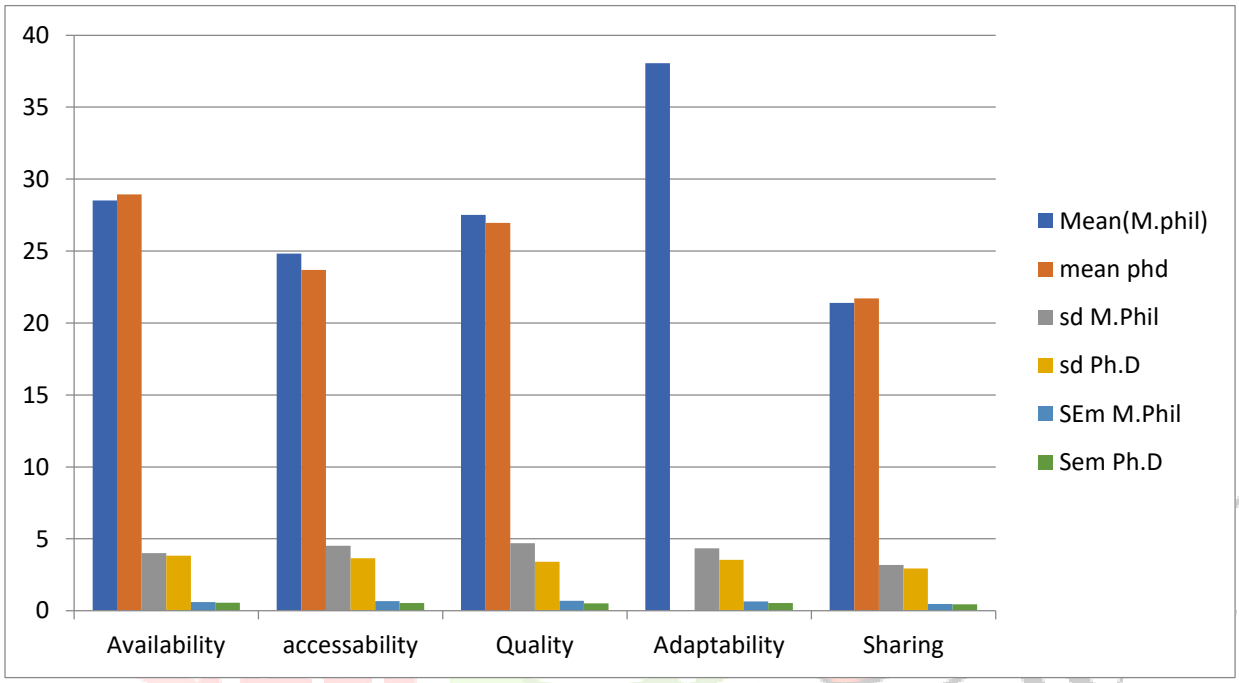

Figure-1 showing- Descriptive score on different dimensions of OER

From the table-2.2, it is observed that the mean perception about OER of M.Phil scholars in different dimensions is not significantly higher than the P.hD scholars in ravenshaw university, cuttack. Here there is a same score of mean between M.Phil and Ph. D scholars.

Table-2.3- Anova table for perception about OER IN availability dimension among Arts, Science and Commerce research scholars:

	Sum of squares	Df	Mean square	F-value
Between groups	299.489	2	149.744	12.377* (significant)
Within groups	1052.56	87	12.098	
Total	1352.05	89		

***significant at 0.05 level of significance**

From the table2.3, it was found that the f-value is significant at 0.05 level of significance. It means that there is significant difference among Arts, science and Commerce research scholars on perception about OER in availability dimension.

Table-2.4. ANOVA table for perception among Arts, Science and Commerce research scholars about accessibility dimension of OER:

	Sum of squares	Df	Mean square	F-value
Between group	294.56	2	147.478	10.464*
Within group	1226.16	87	14.094	
Total	1521.12	89		

From the table 2.4, it was found that the f-value is significant at 0.05 level of significance. It means that there is significant difference among Arts, science and Commerce research scholars on perception about OER in accessibility dimension.

Table-2.5. Anova table for perception about OER in Quality dimension among Arts, Science and Commerce research scholars:

	Sum of squares	Df	Mean square	F-value
Between group	221.66	2	110.83	7.614**
Within group	1266.43	87	14.557	
Total	1521.12	89		

From the table 2.5, it was found that the f-value is significant at 0.05 level of significance. It means that there is significant difference among Arts, science and Commerce research scholars on perception about OER in Quality dimension.

Table-2.6. Anova table for perception about OER in Adaptability dimension among Arts, Science and Commerce research scholars:

	Sum of squares	Df	Mean square	F-value
Between group	221.26	2	110.63	8.179**
Within group	1176.83	87	13.52	
Total	1398.10	89		

From the table 2.6, it was found that the f-value is significant at 0.05 level of significance. It means that there is significant difference among Arts, science and Commerce research scholars on perception about OER in Adaptability dimension.

Table-2.7. Summary of Anova table for perception about OER in Sharing dimension among Arts, Science and Commerce research scholars:

	Sum of Square	Df	Mean square	F-value
Between groups	168.08	2	84.04	11.010**
Within groups	664.13	87	7.634	
Total	832.22	89		

From the table 2.7, it was found that the f-value is significant at 0.05 level of significance. It means that there is significant difference among Arts, science and Commerce research scholars on perception about OER in sharing dimension.

Table-2.8. Summary of Anova table for perception about OER among Arts, Science and Commerce research scholars:

	Sum of squares	Df	Mean square	F-value
Between groups	4876.20	2	2438.10	21.348*
Within groups	9936.20	87	114.20	
Total	14812.40	89		

From the table 2.8, it is observed that the F-value of perception about OER belonging to Arts, Science and Commerce research scholars is 21.348 which is significant at 0.05 level of significance. Therefore the null hypotheses “There is no significant difference about the perception of OER among Arts,Science and Commerce research scholars” is rejected. Hence, the mean perception about OER of Arts research scholars (which is 139.60), Science research scholars(which is 149.50) and Commerce research scholars(which is 131.50) differ significantly.

Major Findings of the study

1. The mean perception of M.Phil scholars about OER (140.31) does not differ significantly from their counter part of Ph.D scholars (140.08). It was found that both M.Phil & Ph.D scholar have the same perception about OER
2. The mean perception of male scholars (140.05) about OER does not differ significantly from their counter part of female scholars (140.29).So that it was found that both the male and female scholar having same idea and knowledge about OER.
3. The mean perception about OER of Science research scholars (149.50),Arts research scholars (139.60) and Commerce research scholar (131.50) differ significantly. It was revealed that Science research scholars are more positively oriented towards the perception of OER than the Arts and Commerce research scholars.
4. The mean perception of OER in availability dimension of Science research scholars (31.10) differs significantly than the mean perception about OER of Commerce research scholar (26.66).
5. The mean perception of OER in availability dimension of Arts research scholars(28.40) slightly differs than the mean perception of Commerce research scholars (26.66).
6. In accessibility dimension the mean perception about OER of Science research scholars (25.40) differs significantly than the mean perception about OER of Commerce research scholar(21.70).
7. In accessibility dimension the mean perception about OER of Arts research scholars (25.66) does not differ significantly than the mean perception about OER of Science research scholars (25.40).
8. In quality dimension the mean perception about OER of Science research scholars (29.06) is significantly higher than the perception about OER of Arts research scholars (27.40) and Commerce research scholars also.
9. In adaptability dimension the mean perception about OER of Science research scholars (40.53) differ significantly than the perception about OER of Commerce research scholars (36.76) but slightly differs than the perception of Arts research scholars (38.53).

The mean perception about OER in sharing dimension of Science research scholars (23.4) significantly differs than the perception about OER of the Arts research scholars (20.13) and Commerce research scholars also.

1. It provide a progress report of research scholars of Ravenshaw University to the authority of this University about difficulties regarding Open Educational Resources (OERs) which will help to develop and creating awareness programme for them.
2. Different programmes like workshops, seminars and orientation programme should be organised in every department for research scholars about their better knowledge towards OER.
3. Library and laboratory facility should be equipped with quality infrastructure to avoid the low speed of Internet.

4. Electronic gadgets should make available for the research scholars in the department for accessing of information.
5. When OER is accessible for all the research scholars , it will make the educational process cost-effective.

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