Awareness of Open Educational Resources among University Students

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Abstract

Open Educational Resources (OER) offer free, easily accessible quality learning materials that enhance the knowledge of students along with sharing and making the education affordable. Awareness among university students plays a significant role in changing their attitude and decision-making regarding the usage of OER in their academic purposes. Different educational and demographic factors can affect pupils' awareness levels. Prior research studies have been emphasized on the differences according to academic discipline, location, and gender. However, the results have frequently been context-specific or inconsistent. The relationship between students' awareness levels and variables including gender, location, and discipline needs to be investigated. The purpose of this study was to examine the awareness level of university students on OER with its knowledge, licensing and source and its association with other demographic variables. The descriptive survey method was used to achieve the objective of the present study with a sample size of 364. The selection of the sample was made through stratified random sampling. A self-developed survey instrument was used to collect data. The investigator attained content validity by obtaining an expert evaluation. Awareness was one of the major components of the tool. The findings reveal that Openstax and SWAYAM were found most preferred OER platforms by university students. There was not a strong association between awareness and other demographic variables except discipline.

Key Terms: *Open Educational Resources, Awareness, Open Access*

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Introduction

Open Educational Resources (OER) serve as fundamental resources that facilitate worldwide improvement in educational practices by reaching out to the unreached as well as providing better quality for those who are lacking quality resources. Quality resources are essential in ensuring that all learners, regardless of their background, have access to the knowledge and skills needed to thrive. By leveraging OER, educators can create inclusive and adaptable learning environments that cater to diverse needs and foster a culture of lifelong learning. Quality resources are essential in ensuring that all learners, regardless of their background, have access to the knowledge and skills needed to thrive. By leveraging OER, educators can create inclusive and adaptable learning environments that cater to diverse needs and foster a culture of lifelong learning. Open Educational Resources emerged as a term during UNESCO's 2002 meeting to demonstrate the power of free teaching materials along with learning content and research materials (UNESCO, 2002). Governments need to support OER by promoting the usage while requiring open licences for publicly funded educational materials, according to the 2012 Paris OER Declaration (UNESCO, 2012). This would ensure that educational resources are accessible to all, thereby enhancing equity in education. By embracing OER, educators can collaborate and share innovative practices, ultimately enriching the learning experience for students from all backgrounds. This would ensure that educational resources are accessible to all, thereby enhancing equity in education. By embracing OER, educators can collaborate and share innovative practices, ultimately enriching the learning experience for students from all backgrounds. This would ensure that educational resources are accessible to all, thereby enhancing equity in education. By embracing OER, educators can collaborate and share innovative practices, ultimately enriching the learning experience for students from all backgrounds. The Community College Open Textbook Project, together with other US-based initiatives, drives the adoption trends of OER throughout the country. The research shows open textbooks lead students to enhance their study habits along with self-directed learning practices (Petrides et al., 2011). The Creative Commons India chapter has operated as a key entity in India for both promoting open content and developing OER practices. This organisation began in 2007 with a 2013 relaunch to host different events that educate people about open licensing practices and the implementation of OER in educational contexts (Jha et al., 2016). Through workshops, seminars, and collaborative projects, the Creative Commons India chapter has significantly contributed to raising awareness and facilitating the adoption of open educational resources across various educational institutions in the country. This initiative has fostered a culture of sharing and collaboration among

educators and learners. Research studies conducted worldwide have examined the patterns through which students use OER. Research in the Czech Republic confirms that most students turn to OER twice as often as traditional materials use them, and Wikipedia stands as the most preferred OER platform. Students preferred the use of OER because they found them convenient and easily accessible, according to Petiška (2018). The results from this study confirm what researchers worldwide have noted about Wikipedia being one of the main educational resources. The "Learning with Wikipedia" project demonstrated the value of using Wikipedia within educational environments because it develops digital literacy and critical thinking abilities and collaborative competencies in students (Petrucco & Ferranti, 2020). Several studies have revealed the positive attitudes toward OER by both educators as well as learners. The adoption of OER materials results in lower educational expenditures combined with better academic accomplishments. Educational institutions, along with their members, show positive opinions about OER because of these resources being adaptable and easily accessible (Hilton, 2019). Worldwide research validates this view about the transformative nature of OER for contemporary education (Farrow, 2016). Research conducted in Kenya demonstrated OER adoption raises learning material accessibility, which solves problems associated with costs and availability and geographical restrictions (Muthanga et al., 2017). OER adoption has the potential to revolutionise educational practices and bridge the gap in resource accessibility, especially in regions where traditional materials are scarce. This present study deals with university students, whether they are familiar with the concept of OER or have a deep knowledge of OER.

Rationale of the Study

There is a need to ensure that all learners have equal opportunities to access knowledge. Students either do not enroll in university or leave later in their studies as a result of the growing expenses. There are certain strategies to lower the cost of higher education and make it affordable to the students of states like Mizoram. To reduce the cost of education per student, some alternatives are required without deteriorating the quality of education. There are three challenges affordability, usability and awareness for the knowledge society in terms of educational resources: new development in subject area learning theories for quality learning, and the inclusion of the heterogeneous groups, so it is the adaptability of OER that offers the possibilities to keep the learner at his pace. It makes the fair distribution of high-quality resources and reduces barriers to learning opportunities. OER increases the relevance and efficacy of the educational process by enabling teachers to modify and adapt information to fit particular learning requirements and regional settings. OER's movement in the

country aims to access free and quality content in the remotest corners of the country. The study's findings are providing an overview of the current awareness to make it for better usage of OER by students of Mizoram University in the Northeast region of India, with a focus on implementing the recommendations of the OER policy in higher education. The study's result guides policymakers, government officials, and researchers in developing a framework and policy for university teachers and students, aimed at improving accessibility to Open Educational Resources (OER). Additionally, these results also provide suggestions for overcoming barriers to OER in higher education institutions located in other parts of the Northeast Region.

Research Questions

- What are the levels of Awareness among Mizoram University students?
- Is there any relationship in awareness of open educational resources among university students with regard to gender, locale, faculty of science & social science?

Objectives of the Study

- To find out the levels of awareness of open educational resources among the university students regarding gender, locale, faculty of science & social science.
- To find out the relationship of awareness of open educational resources among university students with regard to gender, locale, faculty of science & social science

Method

Research Design

The preset study was descriptive in nature and survey method was used to collect data. It is determining the university students' levels of awareness of open educational resources. This also examined the differences of their awareness with regard to stream, gender and locality.

Participant

Students who have been receiving postgraduation education in various disciplines under the different schools were included in the survey. There were 2605 students enrolled in the surveyed year as per the information given on the university website. Lists of the admitted were collected from the departments and sample was selected by applying the stratified sampling techniques. The strata were based on the demographic variables i.e Science v/s Social Science, gender and locality. For this study 364 students were selected from Mizoram university as sample representing the

faculty of Science and Social Science. Equal participation was given to Science and Social Science students i.e. 182.

Instrument

A self-developed questionnaire for collecting the information to answer the research question was used which is consisting of 36 items and divided into three parts: Awareness included 8 items and Usage included 8 items and Barriers included 20 items. In the present study only section-A is included. All the questions were designed to get the required information which were based on the knowledge of concept, source, availability, licencing and preferences. An evaluation tool emerged from thorough research of related literature and received validation from ICT experts from the Faculty of Education. The analysis was made by calculating the frequency and percentage and Chi-square. The percentage were calculated in excel whereas the chi square test was applied by using SPSS version 2016.

Results and Discussion

The questionnaire items were analyzed using frequencies and percentages. The following figures and tables present the results and findings of the study:

Figure 1

From which source did you get to know about OER

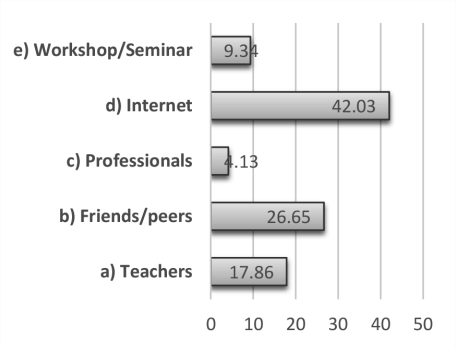


Figure 1 indicates that among Mizoram University students, the internet is the most frequently used source for gaining awareness about OER, accounting for 42.03% of responses. Friends and peers follow as the second most common source at 26.65%, while teachers contribute to 17.86% of the awareness.

Figure 2

Which one of the following is the most correct description of OER

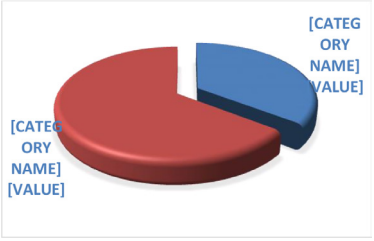


Figure 2, the responses indicate a varied understanding of OER among university students.

While 35.44% correctly identified OER as teaching, learning, and research materials in any format that reside in the public domain or under copyright released with an open license. Which is correct.

Figure 3

Which one of the following is the meaning of open access

Figure 3 indicates that 79.67% (majority of the respondents) correctly identified "open access" as meaning "accessible for everyone" whereas 12.09% believed that it is accessible only for registered users, while 5.47% thought it is available for paid users

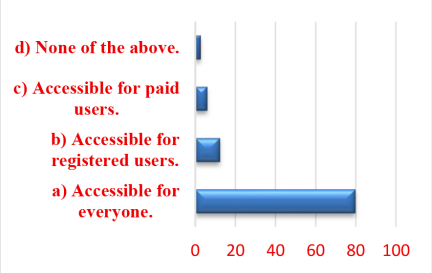


Figure 4

The most unrestricted licence to use OER is

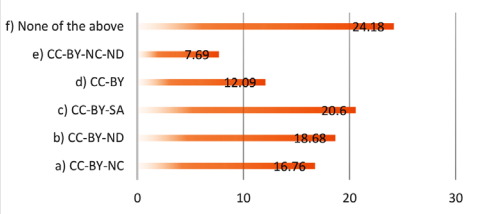


Figure 4 is showing that 12.09 percent university are correctly identified most unrestricted licence to make the use of OER.

Figure 5

Which of the following OER is used for accessing articles in journal

Figure 5 is showing that 14.29% of Mizoram University students have selected "DOAJ" (Directory of Open Access Journals), which is the correct resource for journal articles.

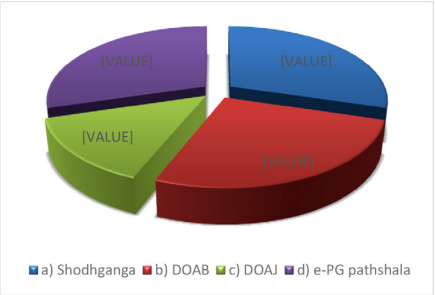
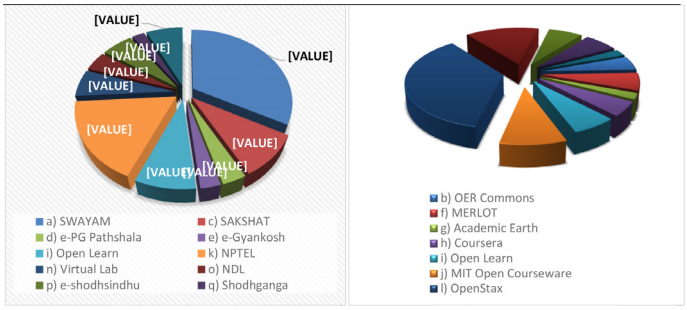


Figure 6

OER Initiative in India and Other than India and Choices among University Students



Open Stax stands at first choice to make use by the university students with 42.15% which is offered by other than India followed by Indian SWYAM (32.97%). Shodhganga was used by the least number of university students with 2.47% (See figure,2).

Table 1

Awareness Levels of OER with Regard to Gender

Category	Group	Level of Awareness	Observed N	Expected N	Residual
Gender	Male	Low	142	137.3	4.7
		Medium	30	34.8	-4.8
		High	4	3.9	0.1
	Female	Low	142	146.7	-4.7
		Medium	42	37.2	4.8
		High	4	4.1	-0.1

Table 2

Relationship between Awareness Levels of OER and Gender

Statistic	Value	Df	p	Effect Size	Interpretation
Pearson Chi-Square	1.61	2	0.448	Cramer's V = .066	Not statistically significant
Likelihood Ratio	1.61	–	0.446	–	Not statistically significant
Phi Coefficient	0.066	–	–	–	Very small association

No. of Valid Cases	364	–	–	–	–

Table 1 & 2 is showing the relationship between gender and awareness levels of OER. The relationship between the variables was not statistically significant, $\chi^2(2, N = 364) = 1.61$, $p = .448$, indicating that gender is not significantly associated with awareness levels in the present study. The effect size, measured by Cramer's V, was small ($V = .066$), suggesting a weak association between the two variables. This implies that male and female participants exhibited similar distributions across the different levels of awareness.

Table 3

Awareness Levels of OER with Regard to Locality

	Locality	Level of Awareness	Observed N	Expected N	Residual
Locality	Rural	Low	138	131.1	6.9
		Medium	28	33.2	-5.2
		High	2	3.7	-1.7
	Urban	Low	146	152.9	-6.9
		Medium	44	38.8	5.2
		High	6	4.3	1.7

Table 4

Relationship between Awareness levels of OER and Locality

Statistic	Value	df	p	Effect Size	Interpretation
Pearson Chi-Square	3.65	2	0.161	Cramer's V = .10	Not statistically significant
Likelihood Ratio	3.75	–	0.154	–	Not statistically significant
Phi Coefficient	0.1	–	–	–	Small association
No. of Valid Cases	364	–	–	–	–

Table 3 & 4 is showing relationship between locality (rural, urban) and awareness level (low, medium, high). The test did not show a statistically significant association between locality and awareness level, $\chi^2(2, N = 364) = 3.65$, $p = .161$. The effect size,

measured by Cramer's V (V = .10), suggests a small association between the two variables. This indicates that although rural and urban participants showed slightly different distributions in awareness levels, these differences were not statistically significant in this sample.

Table 5

Awareness Levels of OER with Regard to Faculty

	Discipline	Awareness Level	Observed N	Expected N	Residual
Faculty	Science	High	3	4	-1
		Medium	31	35.9	-4.9
		Low	148	141.6	6.4
		Total	182	182	—
	Social Science	High	5	4	1
		Medium	41	35.9	5.1
		Low	136	141.6	-5.6
		Total	182	182	—

Table 6

Relationship between Awareness Levels of OER and Faculty

Statistic	Value	df	p	Effect Size	Interpretation
Pearson Chi-Square	367.4	6	< .001	Cramer's V = .709	Large effect size
Likelihood Ratio	16.2	–	0.013	–	Statistically significant
Phi Coefficient	1.003	–	–	–	Strong association
No. of Valid Cases	364	–	–	–	–

Table 5 & 6 demonstrate the relationship between university students' faculty (Science & Social Science) and their levels of awareness (Low, Medium, High). The test revealed a significant association between faculty and awareness level, $\chi^2(6, N = 364) = 367.4$, $p < .001$. Cramer's V was .709, indicating a strong effect size and suggesting that awareness level is strongly related to students' academic discipline. Science students were more likely to be "Low Aware" and slightly less represented in the "Medium Aware" category than expected. Social Science students had slightly higher-than-expected "Medium Aware" counts and fewer "Low Aware" cases.

Discussion

This study aims to assess the awareness of OER of Mizoram University students and significant association with three demographic variables: gender, locality,

and academic discipline. The findings indicate no significant association between awareness of male and female university students, as well as rural and urban Mizoram University students, exhibited similar distributions across awareness levels, with p-values of .448 and .161 respectively, and very weak effect sizes found (Cramer's V = .066 and .100). These results suggest that awareness is evenly distributed across these demographics, likely due to equal access to available educational resources. In contrast, academic discipline demonstrated a statistically significant and strong association in awareness level ($\chi^2 = 367.4$, $p < .001$; Cramer's V = .709), indicating that discipline eventually affected the level of awareness. Science and Social Science students are showing different patterns. Nevertheless, the findings suggest that future awareness initiatives may benefit from being tailored according to academic background, while demographic factors like gender and locality may require less differentiation in intervention strategies. Internet was the most preferred source to get the knowledge of OER. People increasingly rely on internet information despite evidence that it potentially inaccurate (Flanagin and Metzer, 2000). Around one third were able to give correct description of OER. Most unrestricted licence is selected by most of the students in 90 projects which is CC-BY (William and Werth, 2021). Mizoram University students could not identify the most unrestricted licence, only 12.09 % correctly identified. The university students did not have in-depth knowledge of OER. So, the knowledge can enhance the usage of OER for which awareness is required.

Conclusion

Mizoram University students' awareness of Open Educational Resources (OER) is largely similar across gender and location. Different levels of awareness were shown by students studying social science and science, indicating that academic background is playing a significant role in the knowledge of the concept of OER. Many students lack a proper understanding of the concept and in-depth knowledge, including details about licensing, open access, and appropriate sources for specific information. Internet surfing became the most favoured source to become acquainted with the concept of OER. This is demonstrated by the poor identification rate of the most unrestricted license, CC-BY. These results highlight the necessity for focused awareness of contributing factors that improve conceptual knowledge of open educational resources, especially by including discipline-specific tactics. Increasing this understanding is crucial to encouraging higher education institutions to use open educational materials wisely and effectively.

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