Demography, awareness, and usage: self-directed learners' use of Open Educational Resources in an Open Distance Institution

Morakinyo Akintolu
Senior Research Fellow, UNESCO Chair on Open Distance Learning,
University of South Africa
Email: aknitl@unisa.ac.za

ABSTRACT

The use of open educational resources (OERs) has become increasingly popular in recent years as a means of providing students with access to a wide range of educational materials that are free and openly accessible online. This has led to an increased interest in the demographic dynamics of awareness and usage of OERs among students in higher institutions. This paper examines the ways in which demographic factors such as age and gender play a role in this process in an open distance e-learning institution. Furthermore, this study employed a survey research design using a survey to solicit responses from 1970 students from a South African-based open distance e-learning institution and analysed using descriptive data analysis of percentages and frequency counts. This study reveals that younger students were more likely to use OERs than older students. Another demographic factor that affects the awareness and usage of OERs is gender. The study has shown that both female and male students are equally more likely to use OERs. The study further highlighted how these demographic variables interplay with the awareness and usage of open educational resources among students in the ODel Institution. The study recommends that as OERs become more widely available and accepted by all ages and sexes, it is likely that their usage will increase. It is important for lecturers and policymakers to take these factors into account when designing and implementing OER initiatives in order to ensure that all students have equal access to the educational resources they need to succeed.

Keywords: Open educational resources, self-directed learners, demographic dynamics, usage, awareness, Open Distance eLearning.

INTRODUCTION

Open educational resources (OER) are materials, both digital and nondigital, freely accessible for teaching, learning, and research materials that are freely available for use and reuse by anyone. The availability of the OER presents an opportunity for open distance e-learning institutions to provide accessible and affordable learning materials to their students. However, the awareness and usage of OER among students in these institutions is a topic that requires investigation.

Firstly, it is worthy of note that the awareness of OER among students in open distance e-learning institutions varies. According to a study by Willey and Hilton (2018), some students have never heard of OER, while others have heard of it but do not fully understand what it means. Lack of awareness of OER is a major barrier to its usage among students.

Secondly, the usage of OER among students in open distance eLearning institutions is still low despite its availability (Tisoglu, S., et al, 2020; Mishra & Singh, 2020). Lack of awareness, limited access to the internet, and lack of support from instructors are some of the factors why OER usage is low among students (Mishra et al, 2020; Saxena & Singh, 2023; Akintolu & Letseka, 2023). The various factors that affect the awareness and usage of OERs among students in such institutions have led to interest in the demographic dynamics of awareness and usage of OERs among students in open distance e-learning institutions in South Africa. This paper examines the ways in which demographic factors play a role in this process.

Several studies have shown that there are various demographic factors that affect awareness and usage of OERs among students in an open distance e-learning institution (Hilton, 2020). One of such factors is age. This study reveals that younger students were more likely to use OERs than older students (Atenas et al., 2015). This is because younger students are more technologically savvy and are more likely to be comfortable using online resources. Another demographic factor that affects the awareness and usage of OERs is gender. The study has shown that female students are more likely to use OERs than male students (Deimann & Farrow, 2013). This is due to differences in learning styles and preferences, as well as differences in access to technology.

The adoption and usage of OERs among students in open distance e-learning institutions is a complex issue that is influenced by a range of demographic factors (Kim et al., 2015; Smirani & Boulahia, 2022). While there is growing awareness of OERs among students, particularly among younger and male students, the usage of OERs remains relatively low. As OERs become more widely available and accepted by all ages and sexes, it is likely that their usage will increase. It is important for lecturers and policy makers to take these factors into account when designing and implementing OER initiatives, in order to ensure that all students have equal access to the educational resources they need to succeed (Akintolu & Letseka, 2023)

OER is the term for technology-mediated learning in the context of education and training. Its goals are to increase its use and accessibility outside of the formal framework and boundaries of the complaint systems and to encourage involvement and inclusion in the modern technological society (Puccinelli, Reggiani, Saccone, and Trufelli, 2020).

In order to increase its accessibility and usage outside of the educational framework and boundaries of the complaint systems and to promote inclusion and participation in the modern technological environment, open educational resources (OER) refer to technology-mediated learning in the context of both education and training (Puccinelli, Reggiani, Saccone, and Trufelli, 2020).

OERs have drawn more attention to ODeL institutions because of their teaching and learning methods and names, like the University of South Africa (UNISA), to supplement the use of learning management systems that other higher education institutions have adopted.

Regardless of their geographic location, ODeL offers educational possibilities to a variety of student categories in higher education institutions both inside and outside the continent. As a result, students are able to engage with the materials at various times, locations, and settings that suit their needs and situations.

However, it has been observed that students in an ODeL-based institution encounter a variety of difficulties, including situational issues like work and home responsibilities, institutional issues like inadequate poor internet access, infrastructure, and a lack of learning support, and dispositional issues like age, learning style, and marital status (Ibrahim & Silong, 2000; Itasanmi, 2020; Akintolu & Letseka, 2023).

Similar to this, Musingafi, Mapuranga, Chiwanza, and Zebro (2015) listed a few obstacles that ODeL students encounter during their studies, including limited study time, insufficient study materials, ineffective feedback systems, and access to and use of ICT. The fact that OERs give educators and students access to e-resources without any associated royalties or license costs is one of their most important features. Many students find it difficult to stay motivated and engaged in an environment where personal connections and real-time interactions are limited. This lack of motivation and engagement can lead to passive or episodically active participation in online meetings and activities (Kemp & Grieve, 2014); hence, accessing OER can be a challenge.

In other words, one of OERs' most important characteristics is that both lecturers and students are permitted to have the ability to access electronic resources without any financial implication attached to them. Demographic dynamics play a crucial role in the awareness and usage of OERs among students in an open distance e-learning institution. Factors such as age, socio-economic background, and technological literacy greatly influence students' ability to utilize open educational resources (Petre, 2021). However, the primary concern of this study is to ascertain the demographic dynamics of ODeL University students' awareness of and use of open educational resources

Rationale

Recently, in 2022, UNISA "contributed to open education resources freely sharing its expertise with the world in the spirit of ubuntu." However, little is known about the demographic perspective on students' awareness of and usage of OER in higher institutions. There is a general consensus about the awareness and usage of OER to engage materials to stimulate students' learning experience in higher institutions. Thus, the primary objective of the research is to examine how demographic dynamics influence the usage and awareness of OER in an ODeL Institution.

Objectives

- To examine gender-based differences in students' awareness and usage of Open Educational Resources (OER) in an ODL institution.
- To explore the age-related differences in students' awareness and usage of Open Educational Resources (OER) in an ODL institution.

Hypothesis

1. There is a significant difference in awareness levels of OER among ODeL students based on sex
2. There is a significant difference in usage levels of OER among ODeL students based on sex.
3. There is a significant variation in awareness levels of OER among ODeL students based on age
4. There is a significant variation in usage levels based on age among ODeL students based on age.

METHODOLOGY

The study adopted the use of a survey design with a quantitative research approach. A cross-sectional study was undertaken at the UNISA across all faculties involving undergraduate students. A web-generated questionnaire was sent to the students through their institutional e-mail addresses. A total of 1970 students responded to the online survey during the time frame of data collection, which is two months.

The questionnaire consists of three sections: demographic information (gender and age), awareness of OERs, and frequency of usage. The questionnaire was developed by the authors and piloted and reviewed by the ethical review committee. Ethical approval was obtained from the University, College Ethical Committee (2022/05/11/90474988/27/AM) (Attached in Appendix A). All ethical protocols were followed, including giving students informed consent, which was indicated at the beginning of the online survey for their acceptance, explaining the details of the research.

A statistical analysis was conducted using the Statistical Package for Social Sciences (SPSS) version 25.1. Inferential statistics were calculated for both objectives using t-tests to achieve

the first objective (first and second hypotheses), and the second objective (third and fourth hypotheses) was achieved through Analysis of Variance (ANOVA) to check the statistical differences with awareness and usage, differentiating according to gender and age. $P<0.05$ was considered statistically significant.

Scale Reliability Test

Cronbach's Alpha (CA) serves as a gauge of internal consistency reliability, as outlined by Hair et al. (2019). It evaluates the degree of relatedness among a set of items (indicators) when considered as a whole, indicating the reliability of a scale or measuring instrument. Typically, a CA value exceeding 0.70 is deemed acceptable for research purposes.

Composite Reliability (CR), on the other hand, measures the internal consistency of indicator variables that load on a latent variable. Hair et al. (2019) stated that a CR value greater than 0.7 is considered acceptable in assessing the reliability of such variables. Table 1 presents the CA values of Open Educational Resources Awareness (OERA), Open Educational Resources Usage (OERU), and Challenges faced using Open Educational Resources (OERC) constructs.

Table 1: *Reliability results*

Variable	Cronbach's Alpha	Number of Items
Open Educational Resources Awareness (OERA)	0.933	13
Open Educational Resources Usage (OERU)	0.937	15
Challenges faced using Open Educational Resources (OERC)	0.847	10

The reliability results presented in Table 1 demonstrate that the instrument used for measuring open educational resources (OER) exhibits great internal consistency. In particular, the value of Cronbach's Alpha of Open Educational Resources Awareness (OERA) is 0.933, indicating excellent reliability. This suggests that the 13 items used to measure awareness of OER consistently reflect the same underlying construct. Similarly, Open Educational Resources Usage (OERU) has a Cronbach's Alpha of 0.937, indicating excellent reliability. The 15 items assessing the usage of OER show internal solid consistency, meaning they reliably measure the same concept. For Challenges Faced Using Open Educational Resources (OERC), Cronbach's Alpha value is 0.847, which, while slightly lower than the other two constructs, still indicates good reliability. The ten items used to measure the challenges faced by users of OER are consistently aligned with the intended construct. All three variables exceed the commonly accepted threshold of 0.70, as Hair et al. (2017) recommended, indicating a robust internal consistency level. Therefore, the results imply that the instrument used in this study is reliable and can accurately measure the intended constructs related to Open Educational Resources.

PRESENTATION OF DATA/DATA ANALYSIS

Demographic Statistics

This section presents demographic statistics and explores whether Open Educational Resources (OER) Usage varies across different age groups among students in an open-distance learning-based institution in South Africa. The analysis aims to understand if age influences the level of OER usage among the ODeL student population. The demographic distribution of age and sex among the participants is summarized in Table 2.

Table 2: *Demographic statistics*

Variables		Number of respondents	Percent (%)
Age	**16-20**	**135**	**6.9%**
	21-30	864	43.9%
	31-40	512	26.0%
	41-50	317	16.1%
	51-60	128	6.5%
	>=61	14	0.7%
Sex	Female	1333	67.7%
	Male	630	32.0%
	NA	7	0.4%

The demographic distribution reveals that most participants are between 21 and 30 (43.9%), followed by those aged 31 to 40 (26.0%). Females constitute the predominant gender group, comprising 67.7% of the participants.

Descriptive analysis

Research Hypotheses

Hypothesis One:

Analysis of Open Educational Resources Awareness (OERA) by Sex

The independent samples t-test was used to determine whether Open Educational Resources Awareness (OERA) differs by sex. The analysis compared the OERA scores between female and male participants to ascertain if there is a significant difference in awareness levels based on sex. Table 3 presents the group statistics and the independent samples t-test results.

Table 3: *T-test Results for OERA*

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	T	Df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
OERA	Equal variances assumed	.804	.370	-.740	1961	.230	.459	-.02160	.02919	-.07885	.03565
	Equal variances not assumed.			-.731	1198.363	.232	.465	-.02160	.02954	-.07955	.03634

Table 3: Referring to the t-test results, assuming equal variances because the table demonstrates that the variances are equal, according to Levene's Test for Equality of Variances (F = 0.804, p = 0.370). OERA scores for boys and females do not differ significantly, according to the t-test for equality of means (t (1961) = -0.740, p = 0.459 for the two-sided test). The 95% confidence interval for the difference, which includes zero, is between -0.07885 and 0.03565, while the mean difference of -0.02160 is not statistically significant. This suggests that there is

no statistically significant difference in Open Educational Resources Awareness (OERA) between males and females.

Hypothesis Two

Analysis of Open Educational Resources (OER) Usage (OERU) by sex

A t-test for independent samples was used to determine whether Open Educational Resources Usage (OERU) differs by sex. The analysis compared the OERU scores between different age groups to ascertain if there is a significant difference in usage levels based on sex. The group statistics and Table 4 display the results of the independent samples t-test.

Table 4: *T-test Results for OERU*

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	T	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
OERU	Equal variances assumed	1.298	.255	-1.590	1961	.056	.112	-.03930	.02472	-.08779	.00918
	Equal variances not assumed.			-1.561	1179.330	.059	.119	-.03930	.02518	-.08870	.01009

According to Table 4, The variances are equal, according to Levene's Test for Equality of Variances. ($F = 1.298$, $p = 0.255$), so we refer to the t-test results assuming equal variances. The t-test for equality of means reveals no significant difference in OERU scores between females and males ($t(1961) = -1.590$, $p = 0.112$ for the two-sided test). The mean difference of -0.03930 is not statistically significant, and the difference's 95% confidence interval falls between -0.08779 to 0.00918, which includes zero. The analysis indicates no statistically significant difference between females and males in Open Educational Resources Usage (OERU).

Hypothesis Three

Analysis of Open Educational Resources (OER) Awareness by Age Group

An analysis of variance (ANOVA) was performed to determine if age influences OER usage. The hypothesis aimed to assess whether there is a significant variation in awareness levels based on age. The ANOVA results, including between-group and within-group statistics, are presented in Table 5.

Table 5: *ANOVA Results for OERA*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.089	5	0.618	1.696	0.132
Within Groups	715.513	1964	0.364		
Total	718.603	1969			

Table 5 shows the ANOVA results for Open Educational Resources Awareness (OERA). The F-statistic (F = 1.696, p = 0.132) exceeds the standard significance threshold of 0.05. This suggests that there is no statistically significant difference in OER usage among different age groups of students. Therefore, age does not appear to significantly impact the OER usage level among students in the ODeL institution. It implies that factors other than age may play a more substantial role in determining OERA levels among participants.

Hypothesis Four

Analysis of Open Educational Resources (OER) Usage by Age Group

An analysis of variance (ANOVA) was performed to examine whether Open Educational Resources Usage (OERU) differs across various age groups. The hypothesis aimed to determine if there is a significant variation in usage levels based on age. The ANOVA results, including between-groups and within-groups statistics, are summarised in Table 6.

Table 6: *ANOVA Results for OERU*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.075	5	0.415	1.585	0.161
Within Groups	514.261	1964	0.262		
Total	516.336	1969			

The results presented in Table 6 indicate that the F-statistic is 1.585, with a matching p-value of 0.161, surpassing the conventional threshold point of 0.05. These findings suggest no statistically significant difference between age groups in Open Educational Resources Usage (OERU) scores. Therefore, it can be inferred that age group does not significantly influence OERU levels. These results imply that factors other than age may play a more substantial role in determining OERU usage among participants.

Limitations of the study

- Due to the huge population, the number of students sampled may not accurately represent all students enrolled in the ODel institution in South Africa. It is crucial to remember that the sample size for the study was the number of respondents who took part in the online survey. Nonetheless, several limitations mentioned in the study, such as inadequate internet connection and inadequate ICT abilities, might be the reason why some students were unable to complete the online survey.
- Variables which are demographic, awareness, and usage of students in an ODeL space. Further research to look into factors like attitude, learning effectiveness, and satisfaction can be considered.
- The study is exclusively addressed to Open Distance eLearning Institution. For future researchers, it will be imperative to consider the awareness, usage and challenges in a contact-based institution.

DISCUSSION OF FINDINGS, RECOMMENDATIONS, AND CONCLUSION

The assumption of equal variances is correct, as shown by the analysis in Table 2, which shows that Levene's Test for Equality of Variances produces an F-value of 0.804 and a p-value of 0.370. As a result, the t-test findings that assume equal variances might be used for additional analysis. The test statistic t(1961) = -0.740 and a p-value of 0.459 for the two-sided test demonstrate that there is no significant difference in Open Educational Resources Awareness (OERA) ratings between males and females according to the t-test for equality of means.

The observed mean difference between the groups is -0.02160, which is not statistically significant. Furthermore, the 95% confidence interval for this difference ranges from -0.07885 to 0.03565, encompassing zero. This confidence interval further supports the conclusion that there is no statistically significant difference in OERA scores between females and males. Therefore, the data does not provide evidence to suggest a gender-based disparity in awareness of open educational resources. This finding implies that both females and males exhibit similar levels of awareness regarding open educational resources, reinforcing the importance of considering gender equity in the dissemination and utilization of these educational tools.

The findings merge with the trend of studies conducted in the United State by (Bimber, 2000; Katz et al., 2001; Losh, 2003) that there are no different in how both sex assess educational materials via digital mode, however, the study of Enoch & Soker, (2006) is contrary in the fact that the difference between female and male gender are persistent over time indicating the existence of gender based digital divide in assessing the online resources among Israeli students. Finally, contrary to the general expectation, the study found that despite the continuous gap in gender disparity in the accessibility of digital and usage of digital resources, the gap between females and males remains equal in the present study.

The absence of a significant mean difference and the inclusion of zero within the confidence interval both suggest that gender does not play a significant role in influencing OERU scores. This finding implies that both females and males use open educational resources at similar levels. Deimann and Farrow (2013) contradict this finding and aver that female students are more likely to use OERs than male students. Stating that this can be due to differences in learning styles and preferences as well as differences in access to technology.

Such results are important for educators and policymakers, as they highlight the importance of gender neutrality in the promotion and implementation of open educational resources. By ensuring equal access and usage across genders, educational initiatives can better support a diverse range of learners. The distinction between awareness and usage is undoubtedly a parallel and important addition to the discussion of open educational resources.

The digital divide or internet use in relation to age, gender, ethnicity, social class, socioeconomic background, and technological literacy has typically been the focus of prior research on access, awareness, and usage (Enoch & Soker, 2006; Petre, 2021; Mattison et al., 2023). Nonetheless, the current study focuses on how age affects knowledge and use of open educational resources. The author identified four age groupings within the student population: Young students are under the age of 20, normal students are those between the ages of 21 and 30, adults are those between the ages of 31 and 40, and mature students are those over the age of 41. It should be mentioned that the ODL institution is primarily intended for mature, self-directed adult learners.

The lack of statistical significance in the ANOVA results suggests that age does not have a substantial impact on OER awareness levels among students in the Open and Distance e-Learning (ODeL) institution. Consequently, age is not a determining factor in the level of awareness students have about open educational resources.

This finding implies that other factors beyond age are likely to play more critical roles in influencing OER awareness among students. Potential factors could include the quality and accessibility of the resources, institutional support for OER initiatives, or individual differences in motivation and engagement with educational technology. However, in a study carried out by Atenas et al. (2015), it was indicated that younger students were more likely to use OERs than older students. This is due to the fact that younger students are more technologically savvy and are more likely to be comfortable using online resources.

Further research could investigate these alternative influences to better understand what drives OER awareness and utilization among students.

These results have broader implications for educational strategies and policies. Since age is not a significant factor, other variables might be more influential in determining how students engage with OER. Hilton (2020) declares that research has shown that there are various demographic factors that affect awareness and usage of OERs among students in an open distance e-learning institution. These could include the availability and quality of the resources, technological proficiency, institutional support, or individual motivations and learning preferences.

To optimize the effectiveness and reach of OER initiatives, educational institutions and policymakers should focus on these alternative factors. For instance, ensuring high-quality, easily accessible resources, providing robust technical support, and fostering a culture that encourages the use of OER can be more effective strategies than targeting specific age groups. Additionally, these findings can inform future research directions. Studies could explore the impact of variables such as socioeconomic status, prior educational experience, and technological access on OER usage. By identifying and understanding these factors, educational institutions can develop more targeted and effective interventions to enhance OER adoption and utilization, ultimately improving educational outcomes for a diverse student population.

Considering that the ODeL institution's model is clinging to the use of technology in the current twenty-first century, the institution should work harder at developing modules and outreach to engage students with the aid of ICT usage.

Understanding that age does not significantly affect OER awareness can help educational institutions focus their efforts on more impactful areas when promoting and supporting the use of open educational resources. By identifying and addressing the key determinants of OER awareness, institutions can more effectively enhance the educational experiences and outcomes of their diverse student populations.

Demographic characteristics of students have a significant impact on the engagement and utilization of open educational resources in an institution that offers distant learning. Acknowledging and addressing these challenges is necessary to ensure that e-learning is truly inclusive and effective for all learners, regardless of their background or circumstances.

REFERENCES

Akintolu, M., & Letseka, M. (2023). Investigating the awareness, use, and challenges of open educational resources: A survey of an open distance e-learning-based institution in South Africa. *OPEN EDUCATION RESOURCES*, 81.

Atenas, J., Havemann, L., & Priego, E. (2015). Open data as open educational resources: Towards transversal skills and global citizenship. *Open praxis*, *7*(4), 377-389. http://dx.doi.org/10.5944/openpraxis.7.4.233

Bimber, B. (2000). Measuring the gender gap on the Internet. *Social science quarterly*, 868-876. https://www.jstor.org/stable/42864010

de Hart, K., Chetty, Y. & Archer, E. (2015). Uptake of OER by Staff in Distance Education in South Africa. International Review of Research in Open and Distributed Learning, 16(2), 18–45. https://doi.org/10.19173/irrodl.v16i2.2047

Deimann, M., & Farrow, R. (2013). Rethinking OER and their use: Open education as Bildung. *International Review of Research in Open and Distributed Learning*, *14*(3), 344-360. https://doi.org/10.19173/irrodl.v14i3.1370

Enoch, Y., & Soker, Z. (2006). Age, gender, ethnicity and the digital divide: university students' use of web-based instruction. *Open Learning: The Journal of Open, Distance and E-Learning*, *21*(2), 99-110. https://eric.ed.gov/?id=EJ738646

Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, *1*(2), 107–123. https://doi.org/10.1504/IJMDA.2017.087624

Hilton III, J. (2020). Open educational resources, student efficacy, and user perceptions: A synthesis of research published between 2015 and 2018. *Educational Technology Research and Development*, *68*(3), 853-876. https://doi.org/10.1007/s11423-019-09700-4

Ibrahim, D. Z., & Silong, A. D. (2000, October). Barriers to self-directed learning in a virtual environment among adult students. In *14th Annual Conference of the Asian Association of Open Universities* (pp. 25-27). Manila Filipina.

Itasanmi, S. A. (2020). OER awareness and usage among open and distance learning students in South-Western Nigeria. *IJIET (International Journal of Indonesian Education and Teaching)*, *4*(2), 343-357. https://doi.org/10.24071/ijiet.2020.040216

Katz, J. E., Rice, R. E., & Aspden, P. (2001). The Internet, 1995-2000: Access, civic involvement, and social interaction. *American behavioral scientist*, *45*(3), 405-419. https://doi.org/10.1177/0002764201045003004

Kemp, N., & Grieve, R. (2014). Face-to-face or face-to-screen? Undergraduates' opinions and test performance in classroom vs. online learning. Frontiers in psychology, 5, 1278. https://doi.org/10.3389/fpsyg.2014.01278

Kim, B. W., Lee, W. G., Lee, B. R., & Shon, J. G. (2015). Influencing factors in OER usage of adult learners in Korea. *The International Review of Research in Open and Distributed Learning*, *16*(2). https://doi.org/10.19173/irrodl.v16i2.2051

Losh, S. C. (2003). Gender and educational digital chasms in computer and internet access and use over time: 1983–2000. *IT & Society*, *1*(4), 73–86.

Mishra, D., Nair, A. G., Gandhi, R. A., Gogate, P. J., Mathur, S., Bhushan, P., ... & Singh, M. K. (2020). The impact of COVID-19 related lockdown on ophthalmology training programs in India–Outcomes of a survey. *Indian journal of ophthalmology*, *68*(6), 999-1004. https://doi.org/10.4103/ijo.IJO_1067_20

Musingafi, M. C., Mapuranga, B., Chiwanza, K., & Zebron, S. (2015). Challenges for Open and Distance Learning (ODL) students: Experiences from students of the Zimbabwe Open University. *Journal of Education and Practice*, *6*(18), 59–66. ISSN 2222- 288X (Online)

Ngubane-Mokiwa, S. A. (2017). Implications of the University of South Africa's shift to open distance e-learning on teacher education. *Australian Journal of Teacher Education (Online)*, *42*(9), 111-124. https://doi.org/10.14221/ajte.2017v42n9.7

Petre, I. (2021). A brief analysis of eLearning educational services in pandemic crisis. In *MATEC Web of Conferences* (Vol. 343, p. 11011). EDP Sciences.

Puccinelli, R., Reggiani, L., Saccone, M., & Trufelli, L. (2020). Open Educational Resources and Library & Information Science: towards a common framework for methodological approaches and technical solutions. *Grey Journal (TGJ)*, *16*(3).

Saxena, M. K., & Singh, A. (2023). Open Educational Resources in India and its Application in Teaching and Learning.

Smirani, L., & Boulahia, J. (2022). Using the unified theory of acceptance and use of technology to investigate the adoption of open educational resources by faculty members. *International Journal of Information Technology*, *14*(6), 3201-3211.

Tisoglu, S., Kursun, E., & Cagiltay, K. (2020). Open educational resources in Turkey. *Current state of open educational resources in the "belt and road" countries*, 213-235.

United Nations Educational, Scientific and Cultural Organization (UNESCO) and Commonwealth of Learning. 2019. Guidelines on the development of open educational resources policies. Available at: https://www.unesco.de/sites/default/files/2020-01/Guidelines_on_the_Development_ of_OER_Policies_2019.pdf

UNESCO (2019). *Recommendation on Open Educational Resources* (OER).

Wiley, D., Bliss, T. J., & McEwen, M. (2014). Open educational resources: A review of the literature. *Handbook of research on educational communications and technology*, 781-789.

Wiley, D., & Hilton Iii, J. L. (2018). Defining OER-enabled pedagogy. *The International Review of Research in Open and Distributed Learning*, *19*(4).

Appendix A

Open Educational Resources Awareness and Usage Questionnaire
UNESCO Chair on Open Distance Learning, University of South Africa (UNISA)

South Africa

Dear Colleagues,

This questionnaire is designed to collect data on Open Educational Resources (OER) awareness and usage among students at the University of South Africa (UNISA) as an Open Distance Learning Institution. Your support is therefore needed for the successful completion of this study and all information collected is strictly for research purposes only.

For a better understanding of the questionnaire items, **Open Educational Resources refers to teaching and learning materials that are available for use freely in form of course materials, videos, modules, journal articles, and any other materials provided to aid learning either through traditional means or electronic means (internet) aside from the purchased textbooks or course materials.**

Thanks.

Section A: Demographic Data

1. Age: 16-20( ), 21-30 ( ), 31-40( ), 41–50( ), 51-60( ), 61 and above( )
2. Sex: Female ( ), Male ( )
3. Marital Status: Single ( ), Married ( ), Divorce ( )
4. College:_____
5. Department:_____
6. Level: 100 ( ), 200 ( ), 300 ( ), 400 ( ), 500 ( )

Section B

Open Educational Resources (OER) Awareness

S/N	Items	Very Aware	Aware	Unaware	Very Unaware
1	Open Educational Resources (OER) are free to use. They reduce the cost of learning				
2	Many OER are created by teachers from prestigious and famous schools across the world				
3	OER are on YouTube				
4	There are so many OER available to support learning				
5	Some OER are produced locally				
6	I can find OER in the library				
7	I can use my mobile phone to find OER				
8	I can access OER from anywhere				
9	OER are easy to find online				
10	OER are available in video and audio format				
11	My school makes it easy for me to find OER				
12	Some OER are produced locally				
13	OER can be access on any social network				

Open Educational Resources (OER) Usage

S/N	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I would describe using open educational resources to support my learning as interesting				
2	Open educational resources make me feel more engaged with my learning.				
3	Open educational resources directly improve the quality of my learning experience				
4	Open educational resources are not as good as purchased textbooks				
5	I use open educational resources to do my assignments				
6	OER complement what I learn in my formal classes				
7	I learn better from using OER				
8	OER enable me to learn at my own pace				
9	OER help me prepare for classes				
10	OER enable me prepare for tests and exams				
11	I use OER to gain current information in my area of study				
12	I use OER to update my knowledge on a particular topic or area of research				
13	I use OER for personal study				
14	I see others using OER to aid their learning				
15	I use OER to Supplement my study materials				
16	I use the OER very intensively				
17	I use OER very frequently				
18	I use OER a lot				

Adopted from Itasanmi (2020).