Awareness And Perception Of Senior High School Teachers On The Effectiveness Of Open Educational Resources In The Archdiocese Of Lingayen-Dagupan

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Abstract : This study was undertaken to determine the awareness and perception of Senior High School teachers on the effectiveness of Open Educational Resources in the Archdiocese of Lingayen-Dagupan. More specifically, the study attempted to determine the profile of the respondents in terms of highest educational attainment, length of service, and relevant in-service training. Likewise, the level of awareness and effectiveness of Open Educational Resources, results from direct observation and experiences on the use of the said educational portals were included as qualifying statements to be presented and evaluated by the respondents. The relationship between the level of awareness and effectiveness of Open Educational Resources was determine and tested at .05 level of significance. In addition, the researcher also included proposed activities or program to increase the awareness and improve the effective of using Open Educational Resources. Findings show that most of the Senior High School teachers have masteral units. However, educators are required to enroll post-graduate studies for higher learning goals. Generally, teachers are still encouraged to be much aware in validating and confirming any salient bunch of information before giving and teaching these to their learners. Profile attributes with respect to highest educational attainment, length of service, and relevant in-service training are associated to the level of the use of Open Educational Resources. Generally, teachers believed that Open Educational Resources has been much effective for both teaching and learning process in providing quality and relevant education. However, teachers must be instilled with the much effective instruction in facilitating an opportunity to learn for holistic development. Education about Open Educational Resources should be given emphasis. The researcher recommended that teachers shall encourage pursuing advanced studies as major undertakings for professional development and personal fulfillment; teachers shall be encouraged to attend training programs, seminars, conferences and other ways to keep them abreast with recent technological developments and trends in the educational system particularly on the use of Open Educational Resources; teachers must be more functional in educating the core of education - learners – despite of the emerging application of technology and imbalance used of portals by the students.; teachers should possess the ability to adjust and heart to adopt the gradual change of educational system from the use of chalk and blackboard to the use resources coming from the world of instant information – internet; the program of activities to enhance or sustain the 21st century skills of teachers shall be implemented.

Keywords: Open Educational Resources, awareness, perceptions, effectiveness

INTRODUCTION

The COVID-19 pandemic has engulfed every corner of human existence. In a snap of a finger, daily systemic endeavors drastically changed creating a paralyzing domino effect in the community, workplace and school operations. It has catapulted humanity to an unknown trajectory, more so inflicting billions of learners worldwide to be out of school due massive school closures. According to statistics published by UNESCO (2020), 1.21 billion students and children could not still go back to school, accounting for 69.3% of the world's student population.

During the pandemic, educational institutions worldwide have made massive shifts to remote learning. With this change, educational news sources are reporting grave disparities in student access to learning, particularly for students with disabilities, those who are homeless and English language learners, along with calls for elected officials, parent leaders and community leaders to come together to rapidly address these issues (Viega, 2020).

The rapid rise in online classrooms during the COVID-19 pandemic has led to the adoption of more online resources than ever before (Schaffhauser, 2020). Much of the commercial content that has been made temporarily available for free use during the pandemic will no longer be available to all once the pandemic is over, perpetuating inequitable access to learning materials (Schaffhauser, 2020).

To overcome the above challenges, new teaching approaches are needed. In this context, several researchers suggested the use of Open Educational Practices (OEP) and Resources (OER) to provide engaging and interactive experience. UNESCO (2019) also stated that:

> "the judicious application of OER, in combination with appropriate pedagogical methodologies, well-designed learning objects, and the diversity of learning activities, can provide a broader range of innovative pedagogical options to engage both educators and learners to become more active participants in educational processes and creators of content as members of diverse and inclusive Knowledge Societies."

Open educational resources (OER) are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits sharing, accessing, repurposing—including for commercial purposes—and collaborating with others (William and Flora Hewlett Foundation, 2013). All of the CC licenses require those who use the resources to credit the original work by providing attribution (Wiley and Hilton, 2018) and the licenses delineate how that work can be used. Many OER are accessible through the OER commons website, where teachers can create, design, download and upload lesson plans, interactive games, videos, and many other resources that are free and available for all educators.

Allen (2020) noted that while increasing in popularity in higher education, Open Educational Resources (OER) present an underused concept for improving student access to learning in all educational contexts. Many educators are unfamiliar with these openly available, free resources. According to a nationwide survey conducted with PK-12 school district leaders in the USA, only 34% of respondents had awareness of OER and Creative Commons licensing (Allen and Seaman, 2017), and only 37% of higher education faculty reported awareness of OER and Creative Commons licensing (Seaman and Seaman, 2017).

OERs have the potential to achieve inclusive education aiming to ensure that learners with diverse needs and preferences (such as learners with disabilities) have equal opportunities in accessing learning resources, services and experiences in general (Zhang, Tlili, et al., 2020). Hegarty (2015) also mentioned that using OER can save time in preparing learning materials. To solve the problems related to teacher/learners isolation, as well as the need for effective pedagogical approaches to keep learners active and engaged, teachers should build their courses around OER and ask their learners to find content to solve problems, write reports, or do research.

In light of the new normal in Philippine education, the DepEd organized and conducted webinars, training and online consultations on the use and curation of Open Educational Resources (OER) with the topics focused on the development of mobile applications and interactive –eBooks. The said webinar had introduced the use of universally installed educational application as tool to support the production of free e-learning materials and deliver quality instruction even without the access of internet. These has redefined the role of teachers, administrators, and school heads in the new trend of delivering instructions using the latest available technology tools. The strategic implementation to achieve the baseline skills of teachers for e-Learning will initially pave way for the use of OERs as another pathway to connect the disconnected schools.

This study is anchored on the compelling potential of OER to improve equity in learning beyond the pandemic. Vézina and Cable (2020) underscored that open education is not a short-term fix to a passing problem—it is a long-term solution to ensuring equitable, inclusive access to effective educational resources and learning opportunities. Thus, this study aims determine the implications, awareness and effectiveness of OER to the Senior High School teachers in the Archdiocese of Lingayen-Dagupan to identify how OER can contribute towards the goal of Education 4.0, and what role they might play in increasing access, contextualizing the content and improving the quality of language literacy particularly on the lingua franca of every nation- English.

Statement of the Problem

This study aimed to determine the awareness and perceptions of the Senior High School teachers on the effectiveness of Open Educational Resources in the Archdiocese of Lingayen-Dagupan during the school year 2023-2024.

Specifically, it sought to answer the following sub-problems:
1. What is the profile of the respondents in terms of:
    1.1 highest educational attainment
    1.2 length of service, and
    1.3 relevant training attended.
2. What is the level of awareness of Senior High School teachers on the use of Open Educational Resources?
3. Is there a significant relationship between the profile variables on the level of awareness of Senior High School teachers on the use of Open Educational Resources?
4. How effective are the use of Open Educational Resources as perceived by the Senior High School teachers?
5. Based on the findings, what program of activities can be proposed to increase the awareness and perception of Senior High School teachers and improve the effectiveness of Open Educational Resources?

METHODOLOGY

This chapter presents the research methodology which conveys the research design, the sources of data, the research instrument, the gathering of data and the tools for data analysis to treat the different sub-problems raised in the study.

Research Design

The study utilized the quantitative descriptive correlational survey method of research. In view of the nature of the descriptive method of research, the researcher deemed it appropriate in the pursuit of this study to determine the awareness and perceptions of Senior High School teachers on the effectiveness of Open Educational Resources.

Hence, descriptive correlational study is a study in which the researcher is primarily interested in describing relationships among variables, without seeking to establish a causal connection. It is a research designed that discovers relationships among variables and to allow the prediction of future events from present knowledge.

Sources of Data

The subjects of this research study were the Senior High School teachers on the aforementioned districts. They were chosen scientifically and based on the purpose of the study which is appropriate on the characteristics and ability of the preferred respondents.

Sampling, according to Thompson (2012), "consists of selecting some part of a population to observe so that one may estimate something about the whole population". It is the procedure for finding samples in a study. Samples are basically a group of people or things that are taken from a larger group and studied or questioned to gain information. While sampling is an essential aspect of both qualitative and quantitative research, the sampling strategies applied for each may be different.

The proponent opted to realize this scholarly written manuscript on the availability of teachers. By then, they would be completely enumerated for the purpose of the study. On the other hand, the level of awareness and perceptions of Senior High School teachers on the utilization of Open Educational Resources would be identified through the use of stratified random sampling.

Instrumentation and Data Collection

Data-gathering instruments were adapted and modified by the researcher. The researcher utilized a set of questionnaires that elicited the needed data and information on matters that pertain to the topic under study. The questionnaire checklist was specially formulated based on the objectives of the problems to be investigated.

In the social sciences, surveys are one of the most commonly used data collection methods (Marsden & Wright, 2010). Statistics Canada (2010) defines surveys as:

any activity that collects information in an organized and methodical manner about characteristics of interest from some or all units of a population using well-defined concepts, methods, and procedures, and compiles such information into a useful summary form (Statistics Canada, 2010).

Essentially, surveys are research techniques whereby data are collected from individuals with regard to their experience of certain phenomena through the use of questionnaires. The benefits of using survey methods in such a study as this are articulately presented by Check and Schutt (2012). According to the authors, surveys are important for three main reasons: they are versatile, efficient, and generalizable.

The questionnaire was consisted of three parts: the first part would elicit the background information of the respondents namely: highest educational attainment, length of service, and relevant training attended.

The second part would retrieve the level of awareness on the use of Open Educational Resources; and the third part of the questionnaire would elicit the effectiveness of using Open Educational Resources as perceived by the teachers.

To establish the content validity and accuracy of the research instrument, the researcher sought the help of experts to evaluate and validate the adapted questionnaire from the study of Onaifo (2016) entitled, "Alternate Academy: Investigating the Use of Open Educational Resources by Students at the University of Lagos in Nigeria and from the previous study of Bansal (2013) entitled ''OER and Teacher Educators: Awareness and Barriers.''

Tools for Data Analysis

After finalizing the list of research participants, the researcher personally floated and retrieved the questionnaire. The respondents of the study were given enough time to answer the research instrument to ensure the highest degree of objectivity. Moreover, the researcher assured the respondents that the information taken would solely for the purposes of this research work and that the gathered data will be handled in accordance with RA 10173 or the Data Privacy Act of 2012 to ensure a valid and reliable data.

To determine the profile attributes of the respondents, frequency counts and percentages were elicited.

For question number 2, regarding on the level of awareness on the use of Open Educational Resources, the researcher will employ weighted mean (WM). The following formula were used in computing the weighted mean is shown below.

$$WM = \frac{(F \times 5) + (F \times 4) + (F \times 3) + (F \times 2) + (F \times 1)}{Nt}$$

Where:

WM	-	weighted mean
F	-	frequency
Nt	-	total number of respondents
F1	-	number of teachers answered Very Much Aware
F2	-	number of teachers answered Much Aware
F3	-	number of teachers answered Aware
F4	-	number of teachers answered Less Aware
F5	-	number of teachers answered Not Aware

The researcher used the following ranges for the interpretation of question no. 2. The computed mean was compared to the scale below for interpretation. The 5-point Likert Scale was used to allow the individual to express how much they respond with a particular statement.

Choices	Rating Scale	Interpretation
5	4.21 – 5.00	Very Much Aware
4	3.41 – 4.20	Much Aware
3	2.61 – 3.40	Aware
2	1.81 – 2.60	Less Aware
1	1.00 – 1.80	Not Aware

For question number 3, on the significant relationship between the profile variables to the level of awareness on the user of open educational resources, Spearman Rho Correlation Analysis was utilized.

For question number 4, on the effects of using open educational resources as perceived by the teachers, the researcher employed weighted mean (WM). The following formula were used in computing the weighted point is shown below.

$$WM = \frac{(F \times 5) + (F \times 4) + (F \times 3) + (F \times 2) + (F \times 1)}{Nt}$$

Where:

WM	-	weighted mean
F	-	frequency
Nt	-	total number of respondents
F1	-	number of teachers answered Very Effective
F2	-	number of teachers answered Much Effective
F3	-	number of teachers answered Moderately Effective
F4	-	number of teachers answered Slightly Effective
F5	-	number of teachers answered Not Effective

The researcher used the following ranges for the interpretation of question no. 4. The computed mean was compared to the scale below for interpretation. The 5-point Likert Scale was used to allow the individual to express how much they respond with a particular statement.

Choices	Rating Scale	Interpretation
5	4.21 – 5.00	Very Effective
4	3.41 – 4.20	Effective
3	2.61 – 3.40	Moderately Effective
2	1.81 – 2.60	Slightly Effective
1	1.00 – 1.80	Not Effective

RESULTS AND DISCUSSION

This chapter deals with the data gathered, the details of analysis made and the interpretation of the findings on the basis of the problems presented. The gathered data were classified, tallied, and subjected to descriptive analysis which served as basis for the interpretation of findings.

Profile of Senior High School Teachers

The profile of the Senior High School teachers among the schools revealed the changing modes of delivery in teaching and learning process of the 21st century education. Admittedly, the goal of today's education reform will embrace the help and integration of technology for the improvement of performance of our 21st century learners.

More so, educators must be optimistic and wholeheartedly accept the significant change of the educational system for the betterment of the whole agency, stakeholders and heart of education, students.

To obtain a clear view and understanding regarding the status of the teachers, their personal and professional attributes were gathered. These included their highest educational attainment, length of service, and number of relevant in- service training.

Table 1. Highest Educational Attainment of theSenior High School Teachers

Highest Educational Attainment	F	%
MA Units	43	52%
MA Graduate	24	28%
Doctoral Units	13	15%
Doctoral Graduate	4	5%
TOTAL	84	100%

Table 1 explicates the synthesis of data in terms of their highest educational attainment. Admittedly, there are 34 or 52% of the teachers are currently enrolled with their post-graduate studies and already earned units for professional development. Moreover, 24 or 28% finished their MA; 13 or 15% have started their doctorate degree; and 4 or 4% had proudly obtained their highest educational attainment as doctors.

With over 60% of the respondents who are collectively pursuing higher learning and have graduated in the master's and doctorate programs, they are keen at acquiring specialist knowledge and transferable skills and experience such leadership that defines their professional identity. Adams, Hean, Sturgis and Macleod Clark, (2006) described professional identity as "the attitudes, values, knowledge, and beliefs shared with others within a professional group and relates to the professional role being undertaken by the individual and thus is a matter of self-conceptualization associated with the work role adopted." Being able to connect 'researchers and professional practitioners, research and practice, academic coursework and professional

training' and in doing so 'address the learning needs and interests of those working in a professional capacity' was further emphasized by Forsyth et al., (2009).

Table 2. Length of Service of Senior High School Teachers

	F	%
10-15 years	41	49%
15 years and above	43	51%
TOTAL	84	100%

Table 2 presents the years have spent by the teachers on their respective teaching workplace. It can be seen on the table that there are 43 or 51% are teaching for 15 years and above while 41 or 49% are teaching for 10-15 years.

The relationship between teacher experience and learner achievement receives considerable attention in the empirical literature, with somewhat mixed results. Several researchers find that experience, especially during the first couple of years in the classroom, is positively associated with student achievement. Several other studies, however, do not detect meaningful differences between more and less experienced teachers (Carr, 2006; Gallagher, 2004).

Length of service defines how long a person has worked regardless of the status at a company or has belonged to an organization. However, as an educator and public employees, rendering a service must be supported with commitment, passion and purpose. With these essential factors, teachers can easily attain the vision and mission of the agency by giving the quality and accessible education for the Filipino learners.

Table 3. Relevant In- Service Training Attended by the Senior High School Teachers

Number of Relevant In-Service Training	F	%
School-Based	84	100%
Diocese	84	100%
Regional	19	22%
National	10	11%

*Multiple Responses

Table 3 below shows the relevant in-service training of the respondents. It illustrates that most them have attended training advised by the division substantiated by 100% of teacher-respondents; 100% percent attended training within the their respective schools; 19 or 22% attended a regional training; 10 or 11% attended national training.

Several studies indicate that certain types of professional development contribute to teacher quality and student achievement. Specifically, professional development that is sustained, aligned with the curriculum, and focused on instruction is shown to positively influence school-level achievement in mathematics and science at both the elementary and high school levels (Kannapel & Clements, 2005).

Level of Awareness of the Senior High School Teachers on the Use of Open Educational Resources (OER)

Table 4. Level of Awareness of the Senior High School Teachers on the Use of Open Educational Resources (OER)

Indicators	WM	Description
1. Available learning resources and materials in the internet are Open Educational Resources.	2.53	Less Aware
2. Open Educational Resources are available for free.	2.54	Less Aware
3. Open Educational Resources can be creative.	3.22	Aware
4. Open Educational Resources can be easily modified.	3.81	Much Aware
5. Open Educational Resources can be easily combined with other materials.	3.21	Aware
6. Open Educational Resources promote education and research as public activity.	1.88	Less Aware
7. Open Educational resources help teachers and students in saving their time.	2.68	Aware
8. Open Educational Resources are of great help to learners.	2.90	Aware
9. Open Educational Resources bring down the learning teaching cost.	3.57	Much Aware
10. Open Educational Resources are more up-to-date than textbooks.	2.77	Aware
11. Open Educational Resources promote collaboration.	4.00	Much Aware
12. Open Educational Resources complement formal education.	4.02	Much Aware
13. Open Course Ware is a type of Open Educational Resources.	2.00	Less Aware
14. Free courses can be done through Open-educational resources.	2.97	Aware
15. Open Educational Resources have different features that will be beneficial for both learners and teachers.	3.63	Much Aware
AVERAGE WEIGHTED MEAN	2.83	Aware

Choices	Rating Scale	Interpretation
5	4.21 – 5.00	Very Much Aware
4	3.41 – 4.20	Much Aware
3	2.61 – 3.40	Aware
2	1.81 – 2.60	Less Aware
1	1.00 – 1.80	Not Aware

To have deeper analysis regarding the Level of Awareness on the use of Open Educational Resources (OER), qualifying statements or indicators were identified based on the observation and verifiable experience by the teachers. The rating scales of 4.50- 5.00, 3.50- 4.49, 2.50- 3.49, 1.50- 2.49 and 1.00- 1.49 with equivalent descriptive value of Very Much Aware (VMA), Much Aware (MA), Aware (A), Less Aware (LA), and Not Aware (NA), respectively were utilized as bases. The data on the said variable were gathered, interpreted and analyzed.

Table 4 shows mirrors the level of awareness on the use of Open Educational Resources (OER) by the English teachers. It could be gleaned on the table that the said educational platform promotes collaboration (4.00) and complement formal education (4.02). However, teachers are less aware that Open Educational Resources can promote education and research as public activity with the weighted mean of 1.88. These are materials for teaching or learning that are either in the public domain or have been released under a license that allows them to be freely used, changed, or shared with others. Overall, English teachers are much aware on the use of Open Educational Resources strengthened with the average weighted mean of 3.70.

Relationship between the Profile Variables to the Level of Awareness on the Use of Open Educational Resources (OER)

This section presents and discusses the findings on the relationship between the profile variables to the level of awareness on the use of Open Educational Resources (OER). Reference tables containing the numeric data are used to facilitate understanding of the discussions in each sub-section.

Table 5. Relationship Between the Profile Variables to the Level of Awareness on the Use of Open Educational Resources (OER)

Profile Variables	Chi-square	Sig.
Highest Educational Attainment	21.921	.000
Length of Service	29.733	.000
Relevant In-service Trainings	48.079	.000

Table 5 shows the values of Chi-Square to determine the relationship between the profile variables to the level of awareness on the use of Open Educational Resources. Surprisingly, based on the analyzed data, majority of the socio-demographic profiles to the level of awareness on the use of Open Educational Resources were found to be significant: highest educational attainment (.000); length of service (.000); and relevant in-service training (.000). Since the obtained values were significant at .05 alpha level, the hypothesis stating that there is no significant relationship between the profile variables to the level of awareness on the use of Open Educational Resources is rejected.

Likewise, their length of service can be also associated to the following identified statement and somewhat significant to their relevant in-service training.

Effectiveness of using Open Educational Resources as Perceived by the Senior High School Teachers

Table 6. Effectiveness of Using Open Educational Resources As Perceived by the Senior High School Teachers

Indicators	WM	Description
1. Cultivates and generate information from Open Educational Resources during discussion.	4.52	Very Much Effective
2. Shares Open Educational Resources to easily cope with the topic.	3.78	Much Effective
3. Considers Open Educational Resources as digital content.	4.02	Much Effective
4. Learns new body of knowledge by Open Educational Resources with the aid of Open Educational resources as well.	3.95	Much Effective
5. Observes that lots of people are now into using Open Educational Resources.	3.64	Much Effective
6. Uses Open Educational Resources along with others at the same time.	4.50	Very Much Effective
7. Uses Open Educational Resources that are available in video format.	3.75	Much Effective
8. Uses Open Educational Resources are available in audio format.	4.00	Much Effective
9. Easily finds Open Educational Resources online.	4.06	Much Effective
10. Accesses Open Educational Resources from anywhere.	4.00	Much Effective
11. Uses my mobile phone to find Open Educational resources.	3.94	Much Effective
12. Makes it easy for me to find Open Educational Resources most of the time.	3.98	Much Effective
13. Encourages some to use Open Educational Resources for supplementary information.	3.70	Much Effective
14. Considers Open Educational Resources offer contextualized information.	4.52	Very Much Effective
15. Claims that most of Open Educational Resources are available on web.	3.77	Much Effective
16. Believes that many Open Educational Resources are created by prestigious and famous educational institutions.	4.02	Much Effective
17. Uses Open Educational Resources by means of YouTube.	4.06	Much Effective
18. Encourages others to use Open Educational Resources for educational purposes.	4.01	Much Effective
29. Open Educational Resources are different from the kind of materials I normally used.	3.96	Much Effective
20. Creates Open Educational Resources. I learn by creating.	3.70	Much Effective

21. Open Educational Resources are free to use. They reduce the cost of learning.	3.23	Less Effective
AVERAGE WEIGHTED MEAN	**3.96**	**Much Effective**

To have deeper analysis regarding the Effects of Using Open Educational Resources (OER) as perceived by the Senior High School teachers, qualifying statements or indicators were identified based on the observation and verifiable experience by the teachers. The rating scales of 4.50- 5.00, 3.50- 4.49, 2.50- 3.49, 1.50- 2.49 and 1.00- 1.49 with equivalent descriptive value of Very Effective (VE), Effective (E), Moderately Effective (ME), Slightly Effective (SE), and Not Effective (NE), respectively were utilized as bases. The data on the said variable were gathered, interpreted and analyzed. These were presented in the succeeding tables.

Table 6 reflects the effectiveness of using Open Educational Resources (OER) as perceived by the teachers. It portrays on the table that the aforesaid learning database as per teachers believed that it is Much Effective as indicated by the overall average weighted mean of 3.96. Meaning, respondents proved that OER has been very much effective both in cultivating and generating information from open-educational resources during discussion (4.52); OER has been very much effective in offering contextualized information (4.52); and used along with others at the same time (4.50). It is also much effective in searching fiction and non-fiction text by the used of open-educational resources with the assistance of librarian (4.20) and can easily access online (4.06). Furthermore, respondents also claimed that many OER can be much effective in as created by prestigious and famous educational institution (4.01).

Recommendations

1. Teachers shall be encouraged to pursue advanced studies as major undertakings for professional development and personal fulfillment.
2. Teachers shall be encouraged to attend training programs, seminars, conferences and other ways to keep them abreast with recent technological developments and trends in the educational system particularly on the use of Open Educational Resources.
3. Teachers must be more functional in educating the core of education - learners – despite of the emerging application of technology and imbalance used of portals by the students.
4. English teachers should possess the ability to adjust and heart to adopt the gradual change of educational system from the use of chalk and blackboard to the use resources coming from the world of instant information – internet.
5. The program of activities to enhance or sustain the 21st century skills of teachers shall be implemented.

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