PERCEPTIONS AND PRACTICES OF ACADEMIC LIBRARIANS IN HANDLING AND MANAGING OPEN EDUCATION RESOURCES (OERs): BASIS FOR CAPACITY BUILDING PLAN

Objective. This study determined the perceptions of academic librarians on open educational resources (OERs) in terms of familiarity, utilization by patron and purpose, management practices of OERs in terms of handling and storage, organization and marketing, and problems encountered in handling and managing OERs. Methods. It utilized quantitative-qualitative research design or mixed method using a validated researcher-made questionnaire. Descriptive statistics, which mainly consist of frequency distribution, percentile, mean and standard deviation, were used while thematic analysis was utilized for the qualitative data. Results and Discussion. The study revealed that academic librarians are moderately aware on OERs. Regarding digitized library collections, academic librarians are fully aware. In terms of utilization by patron, it was reported that majority of the types of OERs are rarely utilized. The top three types which are seldom utilized by patrons are course materials, digitized library collections and open textbooks. Conclusions. The familiarity of librarians on OERs depends on the degree of their exposure to such resources. Utilization of OERs by patron improves when guided on how to use them. Purpose is defined based on the optimal usage of the OERs. Lack of familiarity and exposure to OERs may lead to poor handling and storage, organization and marketing of these resources resulting to low appreciation from clients. A capacity building plan is needed to improve the handling and management of OERs in academic libraries.

Keywords: academic libraries; capacity-building; handling; management; open educational resources (OERs)

Introduction

Over a period of years, the library has become a center for information and resources across all formats. These resources are utilized by students, teachers, school administrators and non-teaching personnel for instruction, research and recreational purposes.

The new normal has forced many libraries to cease operations or choose to do so following government quarantine guidelines and protocols to stop the spread of the virus. This situation has also braved many librarians to be creative in developing new programs and services. The new normal has provided new opportunities, ideas, partnerships, and challenges in conceptualizing and providing alternative library programs and transforming services to virtual or online.

From the usual balance of print and non-print resources, the emphasis is now on the acquisition of and subscription to electronic resources as long as the library budget permits. Unfortunately, there are many libraries which cannot cope up due to their meager budget or none thereof.

This is where Open Educational Resources (OERs) comes in. The International Federation of Library Associations and Institutions (IFLA) in its publication, “Open Educational Resources and Libraries: A Briefing” (IFLA, 2020), shared three key points about OERs: 1) Open educational resources (OERs) are teaching, learning and research materials made available for free, and with no or only limited restrictions, to support access to knowledge; 2) OERs are becoming increasingly important in the education sector. They have proven their benefits by providing democratic and equitable access to knowledge, supporting life-long and informal learning, and offering diversified sources of knowledge; and 3) Librarians are helping to make OERs a reality: they make them available and accessible, and encourage their production, use and dissemination.
OERs are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge (Atkins, Brown & Hammond, 2007; UNESCO, 2017).

According to UNESCO, academic staff (including librarians and support staff) are vital agents in ensuring the quality of teaching and learning delivered to students. Thus, librarians are expected to become familiar with OERs in order to support teaching and learning. With the increasing presence and demands for OERs, libraries and librarians must be properly equipped in the handling and managing of these resources in order to maximize their purpose and usage (Baker, Carney, & Schwark, 2019).

It is within this purview that the researcher felt the need to conduct a thorough study on the perceptions and practices of academic librarians in handling and managing open educational resources (OERs) with the view of developing a capacity building plan.

**Research Problems.** Generally, the study describes how academic librarians perceive open educational resources (OERs) with the view of developing a capacity building plan. Specifically, it answers the following questions:

1. How may the perceptions of academic librarians on Open Educational Resources (OERs) be described in terms of:
   a. Familiarity
   b. Utilization
   c. Purpose

2. How are Open Educational Resources (OERs) managed in academic libraries based on the following variables:
   a. Handling and storage
   b. Organization
   c. Marketing

3. What are the problems encountered by academic libraries in handling and managing Open Educational Resources (OERs)?

4. What capacity building plan can possibly be formulated to improve handling and managing of OERs?

**Literature Review.** In the era of open e-learning, the librarian as an information specialist should be knowledgeable with all the information resources available from various sources. One of the types of resources that libraries may consider are the open educational resources.

The definition of OER currently most often used is “digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research”. OER includes learning content, software tools to develop, use and distribute content, and implementation resources such as open licences. This report suggests that “open educational resources” refers to accumulated digital assets that can be adjusted and which provide benefits without restricting the possibilities for others to enjoy them (OECD, 2007).

Subsequently, Johnstone (2005) defines OERs according to their function in learning, to include: 1) Learning resources (i.e., courseware, content modules, learning objects, learner support and assessment tools, online learning communities), 2) Resources to support teachers (i.e., tools for teachers and support materials to enable them to create, adapt, and use OER, as well as training materials for teachers and other teaching tools, and 3) Resources to assure the quality of education.
and educational practices. 

According to Doyle (2005) as cited in Downes (2006), the concept of 'open' entails, it seems, at a minimum, no cost to the consumer or user of the resource. This account is expanded into a set of unambiguous affordances by proponents of open access. For example, for the Public Library of Science (PLoS), 'open' includes the following: 1) Free, immediate access online; 2) Unrestricted distribution and re-use; 3) Author retains rights to attribution; 4) Papers are deposited in a public online archive.

It has been widely documented and demonstrated how important open educational resources (OERs) are. Schön (2008) highlighted that Open Educational Resources (OER) can be an important element of policies that want to leverage education and lifelong learning for the knowledge society and economy. From conferences and declarations dedicated to the support of OERs to the development of resource repositories and other services, there has been a general awakening in the learning community (Downes, 2006).

In understanding the concept of ‘open’, Foote (2005) as cited in Downes (2006) defines Four Freedoms in relation to OERs. These are 1) Freedom to copy; 2) Freedom to modify; 3) Freedom to redistribute; and 4) Freedom to redistribute modified versions. (Doyle 2005) as cited in Downes (2006) stressed that there is no consensus that ‘open’ means ‘without limitation whatsoever’. Doyle suggested that some rights may be retained by the author of the resource.

Lin (2019) explored OERs as an alternative to traditional textbooks. In addition to cost-savings, OER brings a promise "that, if curated and used properly, it supports educators striving to create a cost-effective learning environment that's interactive, dynamic, current, and relevant." According to (Kompar, 2016), school librarians are transformational leaders in supporting OER initiatives in school districts and selecting OERs appropriate for the curriculum.

Indeed, OERs are special resources that requires special handling and technical expertise. A specific skill set is needed in order to effectively locate, evaluate, organize, and promote high-quality OER (Mardis, 2015). In essence, librarians are in the position to handle and manage these types of resources.

UNESCO suggested ways and measures on the effective use of OERs. These include 1) developing skills to evaluate OER; 2) publishing OER; 3) assembling, adapting and contextualizing existing OER; 4) developing the habit of working in teams; 5) seeking institutional support for OER skills development; 6) leveraging networks and communities of practice; 7) encouraging student participation; 8) promoting OER through publishing about OER; 9) providing feedback about, and data on the use of, existing OER; and 10) updating knowledge of IPR, copyright and privacy policies. Thus, a capacity building plan is crucial to educate educators and librarians about the proper handling and management of these resources.

User (student and teacher) perception is an important consideration when there is an expectation to use an innovation (Rogers, 2003). Studies of perceptions in both groups have shown students and teachers have a favorable perception of OER because they can increase access, better prepare students, are of similar or higher quality and meet diverse learners’ needs (Allen & Seaman, 2016; Petrides, et al., 2011).

**Methods**

**Research Design.** The study utilized quantitative research design particularly descriptive method. According to McCombes (2020), descriptive research aims to accurately and systematically describe a population, situation or phenomenon. It is designed for the researcher to gather information about present existing conditions. In this particularly study, descriptive method was used to describe the perceptions of academic librarians on Open Educational
Resources (OERs) while thematic analysis was used to describe their practices in handling and managing OERs with the view of designing a capacity building plan as output of the study.

Participants. To achieve a high degree of precision, all members of the Central Luzon Digital Library Consortium had been included as participants of the study. This will narrow the margin of error and allow inferences about the characteristics of the population.

Research Instrument. The researcher developed a self-made questionnaire which is divided into four (4) parts. Part I gathered the demographic profile of the respondents which include their no. of years in the profession, experience in using OERs, number of years that the library has maintained its collection of OERs, and the format/resource types of OERs that the library maintains. Part II elicited information about the participants’ perceptions on OERs in terms of familiarity, utilization by patron and purpose. Part III collected information about participants’ management practices of OERs specifically on handling and storage, organization and marketing. Part IV obtained data on participants’ challenges in handling and managing OERs.

The questionnaire was validated using expert validation. Four experts were invited to assess the self-made questionnaire to determine the applicability of the items prior to pre-testing of the validated questionnaire: retired LIS professor from an international university, electronic resources product specialist/librarian, retired library administrator and archivist/librarian. All the four experts are researchers and have presented a paper in an international conference. The first draft of the questionnaire was forwarded to the first group of validators (i.e., retired library administrator and archivist librarian). Comments and suggestions from the first group of validators were considered for the revision of the instrument. After which, the instrument was again checked by the other two validators (i.e., retired LIS professor and electronic resources product specialist/librarian).

Figure 1 shows the comparative presentation of the assessment ratings given by the two groups of validators on the first and revised draft of the questionnaire. It can be gleaned from Figure 1 that after incorporating the comments given by the first group of validators, scores improved because of the improved self-made questionnaire.

| Items (Sub-items) | Group 1 (First Draft) | Group 2 (Revised Draft) |
|-------------------|-----------------------|-------------------------|
| Perceptions       | 3 (34)                |                         |
|   Validation Criteria |                   |                         |
|   Content | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 4 |
|   Language | 3 | 3 | 2 | 2 | 3 | 4 | 4 | 4 | 4 |
| Practices        | 3 (9)                 |                         |
|   Validation Criteria |                   |                         |
|   Content | 4 | 3 | 2 | 2 | 3 | 4 | 4 | 4 | 4 |
|   Language | 4 | 3 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| Challenges       | 2 (0)                 |                         |
|   Validation Criteria |                   |                         |
|   Content | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
|   Language | 3 | 3 | 2 | 3 | 4 | 4 | 4 | 4 | 4 |
| Mean Score       | 3.43                  | 3.00                    |
| Verbal Interpretation | Manifested   | Manifested | Manifested | Manifested | Manifested | Manifested | Manifested | Manifested | Manifested |

Figure 1. Validation Results for the Self-made Research Questionnaire
As shown on Figure 2, the alpha coefficient for the 14 items is .977, suggesting that the items have relatively high internal consistency.

| Cronbach’s Alpha | Cronbach’s Alpha Based on Standardized Items | N of Items |
|------------------|---------------------------------------------|------------|
| 0.977            | 0.978                                       | 14         |

*Figure 2. Reliability Test*

**Data Gathering Procedure.** The questionnaire was administered by the researcher to the 14 members of the Central Luzon Digital Library Consortium through the Google Form.

**Data Analysis.** Data were tabulated, calculated and statistically analysed, discussed and interpreted using frequency count, percentage distribution, mean, and standard deviation.

**Ethical Considerations.** The following items were considered in the conduct of the study: informed consent, privacy and confidentiality. The researcher obtained the informed consent from all the study participants, emphasizing that their participation was voluntary and free of charge.

When participants sign the consent form, they acknowledge participation in the study and understand that their rights are protected (Creswell, Fetters, & Ivankova, 2004). The researcher explained clearly to the participants that their names would not be disclosed to any outside party with the potential of publication.

**Results and Discussion**

**Participants’ Demographic Profile.** Table 1 presents the participants’ demographic profile in terms of years in LIS practice. Eighty-six percent (12 out of 14) of the participants have more than 10 years of experience in the profession while only 14% (2 out of 14) have 1-3 year experience.

| Responses          | Frequency | Percentage (%) |
|--------------------|-----------|----------------|
| 1-3 years          | 2         | 14             |
| 4-6 years          | 0         | 0              |
| 7-10 years         | 0         | 0              |
| More than 10 years | 12        | 86             |
| Total              | 14        | 100            |

Table 2 shows the participants’ experience on the use of OERs. It was reported that 12 out of the 14 participants have already accessed an OER while the remaining 2 have no experience accessing an OER yet.

| Responses | Frequency | Percentage (%) |
|-----------|-----------|----------------|
| Yes       | 12        | 86             |
| No        | 2         | 14             |
| Total     | 14        | 100            |
Table 3 presents the years that participants have maintained their OERs in the library. In terms of years that participants have maintained their collection of OERs in the library, a higher percentage shows that 35.71% (5 out of 14) of the participants have maintained their OERs less than a year, while 21.43% (3 out of 14) reported that they don’t have a collection of OERs yet.

Table 3. Participants’ Profile in Terms of Years that Library Maintains its OERs

| Responses            | Frequency | Percentage (%) |
|----------------------|-----------|----------------|
| Less than a year     | 5         | 35.71          |
| One to three years   | 2         | 14.29          |
| More than three years| 0         | 0              |
| More than five years | 4         | 28.57          |
| Not yet              | 3         | 21.43          |
| Total                | 14        | 100            |

As can be gleaned from Table 4, the top three types are open textbooks, course materials, images, and OER online archive.

Table 4. Participants’ Profile in Terms of OER Format/Resource Types

| Responses                              | Frequency | Rank |
|----------------------------------------|-----------|------|
| Animation                              | 1         | 9    |
| Audio recordings                       | 1         | 9    |
| Course materials (e.g., modules, full courses, etc.) | 6 | 2 |
| Digitized library collections          |           |      |
| Hypermedia                             |           |      |
| Images (e.g., graphics, charts, tables, and photos) | 3 | 3.5 |
| Learning objects                       | 2         | 5.5  |
| Multimedia in a combination of formats which may be interactive | 1 | 9 |
| Music                                  | 1         | 9    |
| OER online archive                     | 3         | 3.5  |
| Open textbooks                         | 7         | 1    |
| OER software or platform               |           |      |
| Quizzes and games                      | 1         | 9    |
| Videos (often streamed)                | 2         | 5.5  |

In terms of an OER designated staff, Table 5 shows that 50% (7 out of 14) of the participants reported that there is no person in charge in the library that handles and maintains the library collection of OERs, while half of the respondents said they have an OER designated staff.

Table 5. Participants’ Demographic Profile in Terms of OER Designated Staff

| Responses | Frequency | Percentage (%) |
|-----------|-----------|----------------|
| Yes       | 7         | 50             |
| No        | 7         | 50             |
| Total     | 14        | 100            |
Participants’ Perceptions of Open Educational Resources (OERs). Table 6 presents the participants’ perceptions on OERs in terms of familiarity. Results show that respondents are moderately aware on OERs (3.08, SD = 0.76).

Table 6. Participants’ Perceptions on OERs in Terms of Familiarity

| Responses                                      | Mean   | Standard Deviation | Interpretation      |
|------------------------------------------------|--------|--------------------|---------------------|
| Animation                                      | 2.90   | 0.83               | Moderately aware    |
| Audio recordings                               | 3.10   | 0.70               | Moderately aware    |
| Course materials (e.g., modules, full courses, etc.) | 3.20   | 0.75               | Moderately aware    |
| Digitized library collections                  | 3.40   | 0.92               | Fully aware         |
| Hypermedia                                     | 2.70   | 0.64               | Moderately aware    |
| Images (e.g., graphics, charts, tables, and photos) | 3.20   | 0.74               | Moderately aware    |
| Learning objects                               | 2.90   | 0.53               | Moderately aware    |
| Multimedia in a combination of formats         | 3.00   | 0.77               | Moderately aware    |
| Music                                          | 3.20   | 0.87               | Moderately aware    |
| OER online archive                             | 2.90   | 0.83               | Moderately aware    |
| OER software/platform                          | 2.80   | 0.74               | Moderately aware    |
| Open textbooks                                 | 3.30   | 0.64               | Moderately aware    |
| Quizzes and games                              | 3.30   | 0.90               | Moderately aware    |
| Videos (often streamed)                        | 3.20   | 0.87               | Moderately aware    |
| Average Mean                                   | 3.08   | 0.76               | Moderately aware    |

Table 7 presents the respondents’ perceptions on OERs in terms of utilization by patron. Results show that participants rarely use OERs (2.33, SD = 1.02).

Table 7. Participants’ Perceptions on OERs in Terms of Utilization by Patron

| Responses                                      | Mean   | Standard Deviation | Interpretation |
|------------------------------------------------|--------|--------------------|----------------|
| Animation                                      | 2.00   | 1.00               | Rarely         |
| Audio recordings                               | 2.30   | 1.00               | Rarely         |
| Course materials (e.g., modules, full courses, etc.) | 2.60   | 1.11               | Seldom         |
| Digitized library collections                  | 2.80   | 0.87               | Seldom         |
| Hypermedia                                     | 2.00   | 0.89               | Rarely         |
| Images (e.g., graphics, charts, tables, and photos) | 2.50   | 1.02               | Rarely         |
| Learning objects                               | 2.40   | 1.11               | Rarely         |
| Multimedia in a combination of formats         | 2.40   | 1.02               | Rarely         |
| Music                                          | 2.00   | 1.00               | Rarely         |
| OER online archive                             | 2.22   | 1.13               | Rarely         |
| OER software/platform                          | 2.10   | 0.83               | Rarely         |
| Open textbooks                                 | 2.80   | 1.08               | Seldom         |
| Quizzes and games                              | 2.20   | 1.08               | Rarely         |
| Videos (often streamed)                        | 2.40   | 1.11               | Rarely         |
| Average Mean                                   | 2.33   | 1.02               | Rarely         |
Table 8 presents the respondents’ perceptions on OERs in terms of purpose. Results show that participants strongly agree that OERs are convenient, cost-effective, efficient (3.40, SD = 0.48), strategically aligned and provide opportunities for collaboration and innovation (3.30, SD = 0.45).

Table 8. Participants’ Perceptions on OERs in Terms of Purpose

| Responses                                      | Mean | Standard Deviation | Interpretation     |
|------------------------------------------------|------|--------------------|--------------------|
| Convenience                                    | 3.40 | 0.48               | Strongly agree     |
| Cost-effectiveness                             | 3.40 | 0.48               | Strongly agree     |
| Efficiency                                     | 3.40 | 0.48               | Strongly agree     |
| Opportunities for Collaboration and Innovation | 3.30 | 0.45               | Strongly agree     |
| Strategy alignment (i.e., Organization’s planned objectives) | 3.30 | 0.45               | Strongly agree     |
| Student retention                              | 3.20 | 0.40               | Agree              |
| **Average Mean**                               | **3.33** | **0.46**          | **Strongly agree** |

Participants’ Management of Open Educational Resources (OERs). Table 9 shows the management practices of participants in terms of handling and storage. The themes emerged from the responses of participants include: collaboration (P8), content curation (P5, P7, P9), policy formulation (P3), copyright (P12), unavailability of software (P1, P5, P6, P7, P10, P14), software management (P2, P12), and program evaluation (P1, P2, P3, P5, P8, P9, P11).

Table 9. Participants’ Management Practices on OERs in Terms of Handling and Storage

| Questions                                      | Responses                                                      | Keywords                                      | Themes                                           |
|------------------------------------------------|---------------------------------------------------------------|----------------------------------------------|--------------------------------------------------|
| How do you handle and store your collection of OERs? | “Through digital preservation/storage policy” (P2) | Preservation/storage policy (P2) | **Collaboration**                                  |
|                                                | “Webpage/Library website” (P3, P9)                            | List and Links (P5, P7, P9)                  | - [In cooperation with the] MIS office (P8)       |
|                                                | “We store and maintain them separately” (P5)                  | MIS office handles the storage (P9)          | **Content Curation**                             |
|                                                | “We keep a list and links“ (P7)                              |                                              | - List and Links (P5, P7, P9)                    |
|                                                | “The MIS office handles the storage and preservation of the OER in cooperation with the librarian” (P8) |                                              | **Policy Formulation**                           |
|                                                | “Provision of links via library website” (P10)                |                                              | - Preservation/storage policy (P3)               |
Table 10 shows the management practices of participants in terms of organization. The themes emerged from the responses of participants include: *arrangement by subject* (P1, P2, P5, P13), *periodical updating* (P2, P3, P6, P7, P8, P9, P13), and *practical cataloging* (P1, P2, P3, P4, P5, P14).

**Table 10. Participants’ Management Practices on OERs in Terms of Organization**

| Questions | Responses | Keywords | Themes |
|-----------|-----------|----------|--------|
| How do you organize (i.e., cataloging and classification, indexing, filing, etc.) your OERs and make them accessible to your clients? Do you use a classification scheme or system? If yes, | “By subjects / courses (major).” (P1, P2, P5, P13) | Course offerings (P1, P2, P5, P13) | **Arrangement by Subject** - Course offerings (P1, P2, P5, P13) |
| Is there a software or platform do you use to handle and store your OERs? Please discuss the software or platform briefly | “None.” (P1, P5, P6, P7, P10, P14) | No software (P1, P5, P6, P7, P10, P14) | **Copyright** - Copyright law (P12) |
| What criteria for inclusion do you base your selection of OERs? How often do you evaluate your OERs? | “Relevance to the subject programs [curriculum of the academic program offerings].” (P1, P3, P5, P9, P11) | Program offerings (P1, P3, P5, P9, P11) | **Program Evaluation** - Program offerings and evaluation (P1, P2, P3, P5, P8, P9, P11) |
| | “We have software but limited in storing and uploading due to copyright law.” (P12) | Copyright law (P12) | **Unavailability of Software** - No software (P1, P5, P6, P7, P10, P14) |
| | “Software dependent” (P2, P12) | Software dependent (P2, P12) | **Software Management** - Software dependent (P2, P12) |
| | “Collection analysis every semester.” (P2) | Regular evaluation (P2, P8) | **Unavailability of Software** - No software (P1, P5, P6, P7, P10, P14) |
| | “[Evaluation is done] yearly.” (P8) | | |
Please discuss briefly.

How often do you update your collection of OERs?

- “Once a month.” (P3, P6, P7)
- “Regularly.” (P2)
- “Yearly or as necessary.” (P8, P9)
- “Every end of semester.” (P13)

How do you manage the bibliographic records of your OERs? Are they cataloged and classified together with your other library resources?

- “They have separate records.” (P1, P2, P14)
- “Listed only but not cataloged and classified.” (P3, P4, P5)

Periodical Updating
- Regularly (monthly, end of semester, yearly) P2, P3, P6, P7, P8, P9, P13

Practical Cataloging
- Practical cataloging (P1, P2, P3, P4, P5, P14)

Mass marketing
- Marketing through library service and social media (P1, P2, P3, P4, P6, P8, P9, P11)

Table 11 shows the management practices of participants in terms of marketing. The themes emerged from the responses of participants include: mass marketing (P1, P2, P3, P4, P6, P8, P9, P11, P13), and internal communications (P1, P2, P4, P5, P6, P8, P9, P10, P13, P14).

Table 11. Participants’ Management Practices on OERs in Terms of Marketing

| Questions                                                                 | Responses                                                                 | Keywords                                                                                     | Themes                      |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------|
| Do you have marketing or advertising plan specifically designed to promote your collection of OERs? | “We advertise them through library orientation, library service (i.e., current awareness, user education), email, and social media.” (P1, P2, P3, P4, P6, P8, P9, P11) | Marketing through library service and social media (P1, P2, P3, P4, P6, P8, P9, P11) | Mass marketing             |
| What marketing programs or activities do you perform or conduct regularly to promote your OERs? | “Library orientation, social media and bulletin board [display].” (P1, P2, P3, P4, P5, P6, P8, P9, P13) | Library service and social media (P1, P2, P3, P4, P5, P6, P8, P9, P13) | Mass marketing             |
Table 12 shows the challenges that participants experience in handling and managing OERs. The themes emerged from the responses of participants include: capacity building (P1, P2, P5, P6, P7, P10, P12, P13, and P14).

### Table 12. Participants’ Challenges in Handling and Managing OERs

| Questions                                                                 | Responses                                                                 | Keywords                                                                 | Themes             |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------|
| **What are the challenges you encounter in handling and managing OERs?**   | “Storage of OER[s].” (P1)                                                  | Lack of technical expertise (P1, P2, P5, P14)                           | Capacity Building  |
|                                                                           | “Copyright issues.” (P2, P14)                                              |                                                                        | - Lack of technical expertise (P1, P2, P5, P14)               |
|                                                                           | “Limited knowledge in handling and managing OERs.” (P5)                   |                                                                        |                   |
| **What training do you need to capacitate you in handling and managing effectively OERs?** | “Organizing and [proper] handling and managing [off] OERs.” (P1, P2, P5, P6, P10, P12) | Policy formulation (P1, P2, P5, P6, P7, P10, P12)                      | Capacity Building  |
|                                                                           | “Preservation and marketing.” (P3)                                        | Marketing (P3)                                                         | - Policy formulation (P1, P2, P5, P6, P7, P10, P12) |
|                                                                           | “Policy [formulation].” (P7)                                               |                                                                        | - Marketing (P3)   |

Open educational resources are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others (Atkins, Brown & Hammond, 2007; UNESCO, 2017).

The study reveals that librarians are moderately aware on OERs in general while digitized library materials are the most common materials where librarians are fully aware of. Librarians rarely use OERs which may be attributed to their lack of exposure or low level of familiarity. The study conducted by Kassahun &Nsala (2015) as cited in Mwinyimbegu (2018) pointed out that there is only small percentage of academic librarians who are aware of open access.

Since many of the resources available in the library are either acquired or subscribed, less
attention is given to open educational resources. Also, the nature of complexity of OERs bring a lot of challenges among librarians in handling and managing such resources.

Moreover, in terms of management specifically on handling and storing of OERs, librarians only provide list and links to users and make these links accessible on their library page or website. Although some librarians have digital preservation or storage policy, it is reported that there is still a need to conduct training to improve librarians’ technical competencies specifically on data curation and software management to further improve the handling and managing of OERs.

“Through digital preservation/storage policy” (P2)
“Webpage/Library website” (P3, P9)
“We store and maintain them separately” (P5)
“We keep a list and links” (P7)
“Provision of links via library website” (P10)
“Yes. It is open and accessible to our education account in our university apps.” (P2, P12)

Data curation is extremely important in managing OERs. According to Ferreria (2014) as cited in Subrahmanyam (2019), finding the learning resources is the easy part. The challenge lies in selecting the best ones and compiling them at one place in a meaningful way. OER will commoditize education content; nothing can stop that. So, the curation of the OERs is required. OER curation involves finding, organizing, annotating, and sharing OER that is relevant to curator.

Indeed, many OERs are provided by librarians through lists and links arranged by subject or topic. The lists and links are regularly monitored and updated. Librarians maintain separate records for their collection of OERs. The bibliographic records of OERs are practically catalogued but not classified probably because of the nature of the materials. Although links are provided to users, said materials are not downloaded (Schaffert and Geser, 2008).

“By subjects / courses (major).” (P1, P2, P5, P13)
“Listed only but not cataloged and classified.” (P3, P4, P5)
“They have separate records.” (P1, P2, P14)
“Regularly.” (P2)
“Yearly or as necessary.” (P8, P9)
“Every end of semester.” (P13)

On the marketing aspect, librarians do mass marketing in promoting OERs focusing to their internal users including students, teachers, administrators and non-teaching personnel. Promotions and marketing are also integrated in the services and programs of the library.

“We advertise them through library orientation, library service (i.e., current awareness, user education), email, and social media.” (P1, P2, P3, P4, P6, P8, P9, P11)

“Library orientation, social media and bulletin board [display].” (P1, P2, P3, P4, P5, P6,
“Academic community (i.e., teachers, students and other stakeholders).” (P1, P2, P5, P8, P14)

True enough, librarians perform a number of tasks in managing library services and programs including OERs. The University of Torronto (2020) pointed out that the library plays a leading role in the production of OER, with description, classification, management, preservation, dissemination, and promotion, intellectual property and copyright.

Oxford (2020) also identified the many roles librarians play in relation to the handling and managing of OERs. These include integrating OER into learning management system (i.e., Canvas), attributing properly, integrating library, or other copyrighted resources into the academic programs or courses offered by a university, adapting or creating of OER (authoring platforms), printing resources, OER LibGuides, designing open pedagogy/instructional design.

With proper motivation and appropriate capacity training in the handling and managing of OERs, these resources will be greatly maximize according to purpose and usage.

Conclusions

In light of the aforementioned results, the following were concluded:

- The familiarity of librarians on OERs depends on the degree of their exposure to such resources. Utilization of OERs by patron improves when guided on how to use them. Purpose is defined based on the optimal usage of the OERs.
- Lack of familiarity and exposure to OERs may lead to poor handling and storage, organization and marketing of these resources resulting to low appreciation from clients.

Librarians’ limited knowledge on OERs gives mediocre impression from clients. The need to continuously update librarians’ expertise through training or capacity building on information resources (including OERs) is crucial.

Recommendations

Based from the conclusions drawn, the following are hereby recommended:

- Increase librarians’ familiarity on OERs through continuous professional development. User education must be conducted to teach clients how to access, evaluate and use OERs ethically and responsibly.
- Improve library facilities and librarians’ technical skills to allow better handling and storage, organization and marketing of OERs of all types.
- Development of a capacity building plan to improve librarians’ technical and professional skills in handling and managing Open Educational Resources (OERs) is highly recommended.

REFERENCES

Allen, I. E., & Seaman, J. (2016). Opening the curriculum: Open educational resources in US higher education, 2014. Babson Survey Research Group. Retrieved from https://www.onlinelearningsurvey.com/reports/openingthecurriculum2014.pdf (in English)

Atkins, D.E., Brown, J.S., & Hammond, A.L. (2007). A review of the open educational resources (OER) movement: Achievements, challenges, and new opportunities. Retrieved from http://www.hewlett.org/uploads/files/ReviewoftheOERMovement.pdf (in English)
LIBRARY SERVICES FOR SCIENCE AND EDUCATION SUPPORT

Baker, A., Carney, K., & Schwark, C. (2019). The School Librarian’s Role in the Adoption of Open Educational Resources. *School Libraries Worldwide, 25*(1), 81–99. doi: [https://doi.org/10.14265.25.1.005](https://doi.org/10.14265.25.1.005) (in English)

Centre for Educational Research and Innovation. (2007). *Giving knowledge for free: the emergence of open educational resources*. Paris, France: OECD Publishing. Retrieved from [http://www.oecd.org/education/ceri/givingknowledgeforfreethemequicknessofopeneducationalresources.htm](http://www.oecd.org/education/ceri/givingknowledgeforfreethemequicknessofopeneducationalresources.htm) (in English)

Creswell J. W. Fetters M. D., & Ivankova N. V. (2004). Designing a mixed methods study in primary care. *The Annals of Family Medicine 2*(1):7-12. doi: [https://doi.org/10.1370/afm.104](https://doi.org/10.1370/afm.104) (in English)

Downes, S. (2006). *Models for sustainable Open Educational Resources*. National Research Council Canada. Retrieved on November 30, 2020 from [https://www.oecd.org/education/ceri/36781698.pdf](https://www.oecd.org/education/ceri/36781698.pdf) (in English)

Johnstone, S. M. (2005). Open Educational Resources serve the world. *EDUCAUSE Quarterly (EQ)*, 28(3). Retrieved from [https://er.educause.edu/-/media/files/article-downloads/eqm0533.pdf](https://er.educause.edu/-/media/files/article-downloads/eqm0533.pdf) (in English)

IFLA. (2020). *Open Educational Resources and Libraries*. Retrieved on October 30, 2020 from [https://www.ifla.org/files/assets/clm/news/oer_ifla_brief.pdf](https://www.ifla.org/files/assets/clm/news/oer_ifla_brief.pdf) (in English)

Kompar, Fran. 2016. The Trending Librarian. *Teacher Librarian, 44*(1): 58–62. Retrieved from [https://www.questia.com/magazine/1G1-469315275/the-trending-librarian](https://www.questia.com/magazine/1G1-469315275/the-trending-librarian) (in English)

Lin, Hong. (2019). Teaching and learning without a textbook: undergraduate student perceptions of Open Educational Resources. *International Review of Research in Open and Distributed Learning, 20*(3): 1-18. Retrieved from [https://eric.ed.gov/?id=EJ1223633](https://eric.ed.gov/?id=EJ1223633) (in English)

Mardis, M. A. (2015). Collect or curate? Open education resources and the future of the school library catalog. *School Library Monthly, 31*(4), 29-31. Retrieved from [https://mardis.cci.fsu.edu/11.NonrefereedJournalArticles/11.8mardis.pdf](https://mardis.cci.fsu.edu/11.NonrefereedJournalArticles/11.8mardis.pdf) (in English)

Mwinyimbegu, C. M. (2018). The role of libraries and librarians in open educational resources in Tanzania: the case of selected public university libraries. *Library Philosophy and Practice (e-journal):* 1-15. Retrieved from [https://digitalcommons.unl.edu/libphilprac/2097/](https://digitalcommons.unl.edu/libphilprac/2097/) (in English)

Oxford, R. (2020). *OER for librarians*. Retrieved on December 7, 2020 Retrieved from [https://www.asccc.org/sites/default/files/ASCCC_%20OER%20for%20Llibrarians.pdf](https://www.asccc.org/sites/default/files/ASCCC_%20OER%20for%20Llibrarians.pdf) (in English)

Petrides, L., Jimes, C., Middleton, A., Detzner, C., Walling, J., & Weiss, S. (2011). Open textbook adoption and use: Implications for teachers and learners. *Open Learning: The Journal of Open, Distance and eLearning, 26*(1), 39-49 Retrieved from [https://eric.ed.gov/?id=EJ911500](https://eric.ed.gov/?id=EJ911500) (in English)

Rogers, E.M. (2003). Diffusion of innovations (5th ed.). New York: Free Press. Retrieved from [https://teddykw2.files.wordpress.com/2012/07/everett-m-rogers-diffusion-of-innovations.pdf](https://teddykw2.files.wordpress.com/2012/07/everett-m-rogers-diffusion-of-innovations.pdf) (in English)

Schön, S. (2008). Open educational resources and practices. *eLearning Paper*. Retrieved from [https://www.academia.edu/251544/Open_Educational_Resources_and_Practices](https://www.academia.edu/251544/Open_Educational_Resources_and_Practices) (in English)

Schaffert, Sandra and Geser, Guntram (2008). Open Educational Resources and Practices. eLearning Papers, Nº 7. ISSN 1887-1542. Retrieved from [https://www.researchgate.net/publication/28215644_Open_Educational_Resources_and_Practices](https://www.researchgate.net/publication/28215644_Open_Educational_Resources_and_Practices) (in English)

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СПРИЙНЯТТЯ І ПРАКТИКА АКАДЕМІЧНИХ БІБЛІОТЕК В ОБІГУ І УПРАВЛІННІ РЕСУРСАМИ ВІДКРИТОЇ ОСВІТИ (ТМР): ОСНОВА ДЛЯ ПЛАНУ НАРОЩУВАННЯ ПОТЕНЦІАЛУ

Введення. Це дослідження визначило сприйняття академічними бібліотекарями відкритих освітніх ресурсів (ВОР) з точки зору обізнаності, використання користувачами і метою, практики управління ВОР з точки зору обробки і зберігання, організації та маркетингу, а також проблем, що виникають при зверненні та управлінні ВОР. Методика. Використовувався кількісно-якісний план дослідження або змішаний метод з використанням затвердженого запитальника, складеного дослідником. Описова статистика, яка в основному складається з частотного розподілу, процентилі, середнього і стандартного відхилення, використовувалася, в той час як для якісних даних використовувався тематичний аналіз. Результати та їх обговорення. Дослідження показало, що академічні бібліотекарі не достатньо обізнані про ВОР. Що стосується оцифрованих бібліотечних фондів, академічні бібліотекарі повністю інформовані. Що стосується використання користувачами, повідомлялося, що більшість типів ВОР використовуються рідко. Три основних типи, які рідко використовуються читачами, – це матеріали курсів, оцифровані бібліотечні колекції та відкриті підручники. Висновки. Знайомство бібліотекарів з ВОР залежить від ступеня їх доступу до таких ресурсів. Використання ВОР користувачами поліпшується, якщо керуватися тим, як їх використовувати. Мета визначається виходячи з оптимального використання ВОР. Незнання і незнання ВОР може призвести до поганого поводження і зберігання, організації та маркетингу цих ресурсів, що призведе до низької оцінки з боку клієнтів. План нарощування потенціалу необхідний для поліпшення обробки і управління ВОР в академічних бібліотеках.

Ключові слова: відкриті освітні ресурси (ВОР); академічні бібліотеки; управління; менеджмент; нарощування потенціалу