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KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS OPEN EDUCATIONAL RESOURCES IN HIGHER EDUCATION INSTITUTIONS IN THE PHILIPPINES

Abstract. Open educational resources (OER) are well-known around the world and globally it gives revenue to Higher Education Institutions (HEIs). It also gives benefits in various Asian countries. However, in the Philippines there is a lack of information and implementation. With the update in education and the shift in learning modality a great need for educational resources - free and open to the public increases, especially in the outrage of the pandemic. These events and phenomena also create a schism between librarians' perspectives and practices on OER. This paper examines the academic librarians' knowledge, attitudes, and practices (KAP) toward OER in higher education institutions in the Philippines. Specifically, this paper is aimed at assessing the level of KAP toward OER among the librarians. It also investigates the relationship between KAP-OER and the profiles of academic librarians and libraries, as well as the differences between KAP-OER and sex, higher educational attainment, and years of service. The respondents of the study were the 57 academic librarians from different HEIs in the Philippines. An adapted questionnaire was used, and it was administered online through Google forms. Results show that academic librarians reinforce the trend of infrequent engagement in OER practices at the school. In terms of reuse, revise, remix, and redistribution, the respondents express a tendency to rarely engage in these practices at our school, with mean scores ranging from 5.31 to 5.75. On the general aspects of OER, the respondents exhibit a positive attitude, with a mean score of 5.27. The respondents and library profiles record no relationship to KAP. In contrast, print and nonprint resources can positively affect KAP. While sexes, highest educational attainment, and number of years of service shows no difference. This study concludes that Philippine academic librarians challenged in terms of KAP-OER. Thus, require the interventions for improvement. This study confirms that more research is needed. It suggests providing OER seminars and training, promoting OER through collaboration, funding, institutional incentives, and support for OER activities.

Keywords: Digital Library; Open Educational Resources; Revise-Reuse-Remix-Redistribute; Flexible Learning

1. INTRODUCTION

Open educational resources (OER) are not new to librarians, nor is flexible learning. It is becoming a global phenomenon [1]. Globally, it has produced revenue among higher education institutions (HEI) offering a significant opportunity in the global free exchange of knowledge and making learning accessible and re-usable for both teachers and educators [2]. Moreno-Guerrero et al. [3] once stated that "the development of information and communication technologies (ICT) reflects technological progress in the educational field since they advance creative academic activities and create new learning spaces. These pedagogical activities

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contribute to the transformation of the classroom by urging students to work on their inspiration, independence, inclusion, and mentality toward educational content. Among the ICT-based pedagogical actions is OER. UNESCO [4] defines OERs as "teaching, learning, and research materials in any medium—digital or otherwise—that reside in the public domain or are released under an intellectual property license that permits no-cost access, use, adaptation, and redistribution by others." In Asia, specifically Malaysia, Bahrain, and other Asian nations, as per investigation, they see the significance of OERs for educators and students. For them it gives incredible liberties in meeting user's needs considering the progressions and difficulties of the new modalities of learning, adaptable/flexible learning [5]. OERs offer freedom to access and use available in seeking quality information resources. The Philippines has a diverse range of OER development and implementation cases among Asian countries [6]. However, most HEIs in the Philippines have not fully implemented OER [7]. The education sector also faces difficulties and challenges suffering from a lack of, if not poorly maintained, infrastructure as well as a scarcity of available materials and libraries [8]. Furthermore, librarians are not fully aware of OERs due to a lack of exposure or familiarity with handling and managing OER [7]. This concept is based on what various researchers have embraced to bridge the gap between librarians knowledge, attitude, and practices (KAP) towards OER, for HEIs, librarians, teachers, and students competitive advantage. Actual data is gathered to better understand the Philippine academic librarians KAP towards OER. The study assists researchers in understanding the academic librarian's KAP, whether their library has OER or otherwise.

The statement of the problem

OER is already well-known and widely used around the world. However, the Philippines lacks information and implementation of OERs, although stated in the Commission on Higher Education Memorandum Order (CHED-CMO) [9]. Some OERs in the Philippines are not as developed as in other countries. According to existing literature OERs are essential to users in pursuing their education, especially now that flexible learning has been implemented. Hence, this investigation assesses academic librarians' knowledge, attitudes, and practices about OER, most especially that OERs are exceptionally useful in this pandemic where face-to-face learning is not permitted.

Analysis of recent studies and publications. Higher education is confronting various difficulties involving the shift of learning modalities. Though in the pre-pandemic era the idea of flexible learning has already emerged and been practiced. It accelerated and became a growing global industry [5]. Despite the positive impact of flexible learning some issues affect both students and teachers. It offers difficulties for developing countries [10]. OER is one of these difficulties, yet a sound methodology to address difficulties [11]. Thus, Commission on Higher Education (CHED) encourages HEIs to use technology effectively [12] to promote flexible and adaptable learning. However, for users' success in gaining quality education, librarians should also be potentially well-verse of the resource to support educators and learners. This study utilizes the concept of four "4Rs" of OER such as reuse, redistribute, revise, and remix [13], [14]. These 4Rs of OER openness offer learners freedom to use all or part of the unaltered; verbatim work; adapt, modify, translate, or change the form of the work; and, combining OER with other OERs to produce new materials [15]. Despite the Philippines acceptance of OER, there still a need to assess librarians OER mindfulness and practices [16]. There are only a few studies that have been conducted on the subject. In the report's discoveries from a fundamental review of OER in 2011-2012 in the Philippine higher education which cannot give generalized data to librarians KAP. In this way, it is imperative to evaluate academic librarians' KAP towards OER. Academic librarians are typically experts in finding and collecting authoritative resources whether print or digital in form. Thus, when it comes to OER consciousness librarians' is higher (76.9%) than that of educators' (58%)" [17]. A case recorded that explores librarians' attitudes about OER was conducted [18] in Australia and the

USA it appeared that teacher-librarians are aware of OER and record positive result, however some of them are unclear on their views. Although librarians know about OER they do not see themselves as OER specialists [18]. Despite this, they are ready to study OER adding to their role and professional responsibility as to help faculty and students which include advocacy, promotion, and discovery; evaluation, collection, preservation, and access; curation, creation, and facilitation; and funding [19], [20] in addition to the main areas of the library's involvement such as description and classification, management, preservation, dissemination, and promotion of OER. Training and workshop opportunities, library collaborations with various academic and support departments, and campus-wide collaboration committed to assist faculty in understanding the various OER adoption and creation. With that, this article aims to profile academic librarians, HEIs (academic library) and the level of librarians KAP towards OER. Specifically, this paper provides a descriptive-correlative analysis of KAP among the respondents in terms of revise, reuse, remix, and redistribute elements of OER openness. Ultimately, this paper fills in the limited literature on OER in developing countries like the Philippines, where OER is not as developed, and to gather an actual data to analyze the academic librarians KAP on OER.

The research goal. The primary aim of this study is to evaluate the KAP related to OER. Specifically, the focus is on discerning the level of KAP among academic librarians in the Philippines, measured through aspects such as reuse, revise, remix, redistribution, and general considerations. Moreover, the paper delves into establishing significant relationships and differences between variables. This research contributes to bridging gaps in existing literature, particularly in the context of librarians in developing countries.

2. THE THEORETICAL BACKGROUNDS

A KAP survey research "is a representative study of a specific population to collect information on what is known, believed, and done in relation to a particular topic" [21]. A KAP survey usually is conducted to collect information on the knowledge (i.e., what is known), attitudes (i.e., what have thought), and practices (i.e., what have done) about general and specific topics of a particular population.

Figure 1. Knowledge-Attitude-Practice Model (Bano et al., 2013 and Siltrakool Budh., 2017)

The 4Rs of OER – reuse, redistribute, revise, and remix [13], [14] was used in this study. This framework offers learners freedom to use all or part of the unaltered; verbatim work; adapt, modify, translate, or change the form of the work; and, combining OER with other OERs to produce new materials [15] as shown in figure 2.

Knowledge means participant understanding of any given topic [22], in this case, academic librarians' understanding of OER. It is the ability to receive, retain, and use information mixed with experience and skills. On the other hand, an attitude refers to participants' feelings about the topic [22]which is a propensity to react in a definite way to a specific situation [24]; in this case, to an OER.

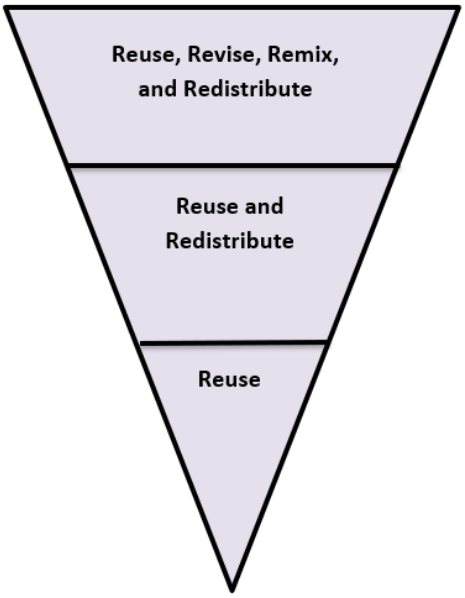

Figure 2. The Concept of OER Four Rs of Openness devised by Hilton, Wiley, Stein, and Johnson (2010)

While practices are how participants demonstrate their knowledge and attitude [22], they also prove their knowledge and attitude. It means applying rules and knowledge regarding action [24].

3. RESEARCH METHODS

The study employed a descriptive-corelative analysis on KAP using an adapted survey questionnaire. The survey was conducted from February 21, 2023, to April 11, 2023, through Google forms in the 57 HEIs offering Bachelor of Library and Information Science (BLIS) program. The study's respondents were the 57 academic librarians from different schools and libraries in the entire Philippines. They were either those with prior knowledge or those without knowledge of OER.

The instrument used in data gathering to accomplish the study's specific objectives was a survey questionnaire. The statements on the instrument were adapted and modified from the principles in the studies of the following authors Braddlee and VanScoy [19], Okamoto [20], Mishra and Singh [25], and Smith and [25]. The self-constructed survey questions that are based on the concept 4Rs of OER [13] was employed through online using Google Forms. It was tested and validated through reliability and validity survey. The statements on KAP were concern on re-use, revise, remix, and redistribute, while the general academic librarians' practices is on the aspects of advocacy, curation, content development, cataloging and metadata, discovery, funding, information literacy, licensing, policy development, professional development, publishing, recognition, and team members [19], [25], [20], [25].

In a Likert scale prepared by the researchers, the items have corresponding scales and descriptions: 7 = I regularly practiced this in our school; 6 = This is something I rarely do at

our school; 5 = I know this, and I am optimistic/positive about practicing and learning this in school; 4 = I know this, but I don't want to do this in our school; 3 = I am fully aware but not yet practicing in our school; 2 = I have no knowledge; 1 = I am not familiar/aware at all, with the rate of seven (7) being the highest and one (1) being the lowest.

The data was analyzed using Pearson r, Cronbach Alpha, Measures of Central Tendency such as mean/percentage, Frequency, Chi Square, Spearman Rho and One Way ANOVA using Microsoft Excel and SPSS software. Pearson correlation coefficient and Cronbach Alpha were used to analyze the test-retest and internal consistency of the instrument for the KAP-OER.

The total number of HEIs in the Philippines according to the three island groups such as Luzon, Visayas, and Mindanao, based on Philippine Librarians Association Incorporated (PLAI), Find University, and for each of the HEI's websites; 30 (52.63%) came from Luzon, 15 (26.32%) from Mindanao, and 12 (21.05%) from the Visayas. For the respondents' demographic profile as depicted in Table 1, in terms of sex, 50 (87.72%) were females, and 7 (12.28%) were males. Regarding educational attainment 37 (64.91%) have a master's degree in LIS, 9 (15.79%) have a Doctorate degree in LIS or any related fields, 8 (14.04%) have a bachelor's degree and 3 (5.26%) have post-Doctorate. While on respondents' years of service, the average is 18.93. When it comes to status, it shows that 40 (70.18%) of the HEIs, were from private colleges/universities and 17 (29.82%) were from state colleges/universities.

Table 1

Demographic Profile: Sex, Highest Educational Attainment & Years of Service

Sex	**Frequency**	**Percentage**
Male	7	12.28 %
Female	50	87.72 %
Total	57	100.00 %
Highest Educational Attainment:	**Frequency**	**Percentage**
Post - Doctorate	3	5.26 %
Doctorate	9	15.79%
Master's Degree	37	64.91 %
Bachelor's Degree	8	14.04%
Total	57	100.00 %

For number of resources, the average total number of print resources (in volumes) is 81,620 and the average total number of non-print resources (in volumes) is 41,980. The average total databases subscribed is 23.39, while the average total open educational resource sources available in HEIs library is estimated at 1,761.89.

4. THE RESULTS AND THE DISCUSSION

4.1. KAP on OER

The level of KAP according to the "reuse" notion of OER in Table 2 it is shown that the overall mean of items under reuse is 5.75, which corresponds to 'This is something I rarely do at our school'. The highest mean 5.84, which was "Adapting OER in our libraries fulfills the academic requirements of students," and "Integrating OER promotes innovative pedagogical models." The lowest mean is 5.60 of the reuse statements is on "Encouraging academic librarian

partnerships around OER sharing and reuse." All are described as "This is something I rarely do at our school."

Table 2

KAP on Re-use Notion of OER

Re-use notion of OER level of agreement	Mean	Description
Adapting OER in our libraries fulfills the academic requirements of students.	**5.84**	This is something I rarely do at our school.
Encouraging School/Academic Librarian Partnerships around OER sharing and reuse.	**5.60**	This is something I rarely do at our school.
Integrating OER promotes innovative pedagogical models.	**5.84**	This is something I rarely do at our school.
Re-using OER requires support and policies.	**5.74**	This is something I rarely do at our school.
Sharing enhances my personal and organizational reputation.	**5.72**	This is something I rarely do at our school.
Overall Mean	**5.75**	This is something I rarely do at our school.

The second element, 'revise' notion of OER, as shown in Table 3, the respondents' levels of KAP revealed that the overall is 5.31, which corresponds to 'This is something I rarely do at our school'. The highest mean is 5.82 on the item "making OER more retrievable to the library users," and the lowest mean is 4.89 (I know this, and I am optimistic/positive about practicing and learning this in school) on "Editing a video, including making a clip."

Table 3

KAP on the Revise Notion of OER

Revise notion of OER openness level of agreement	Mean	Description
Converting Microsoft Word to PDF, HTML, or E-Pub.	**5.60**	This is something I rarely do at our school.
Editing a video, including making a clip.	**4.89**	I know this, and I am optimistic/positive about practicing and learning this in school.
Making OER more retrievable to the library users.	**5.82**	This is something I rarely do at our school.
Packaging an LMS-specific course.	**5.05**	I know this, and I am optimistic/positive about practicing and learning this in school.
Reformatting or rearranging material to match a different aesthetic taste.	**5.18**	I know this, and I am optimistic/positive about practicing and learning this in school.
Overall Mean	**5.31**	This is something I rarely do at our school.

For the third element, the levels of KAP according to the "remix notion" of OER as shown on Table 4, the overall mean is 5.33, described as "this is something I rarely do at our school." The highest mean was equal to 5.42 on item "Recognizing the value of OER remix for greater competence." The statement "Applying peer validation methods to validate content" had the lowest mean which is 5.21 (I know this, and I am optimistic/positive about practicing and learning it in school).

Table 4

KAP on the Remix Notion of OER

Remix notion of OER openness level of agreements	**Mean**	**Description**
Allowing localization of OER in the library.	**5.25**	I know this, and I am optimistic/positive about practicing and learning this in school.
Applying peer validation methods to validate content.	**5.21**	I know this, and I am optimistic/positive about practicing and learning this in school.
Customizing OER to add library collections.	**5.37**	This is something I rarely do at our school.
Establishing partnerships with faculty in remixing educational materials.	**5.40**	This is something I rarely do at our school.
Recognizing the value of OER remix for greater competence.	**5.42**	This is something I rarely do at our school.
Overall Mean	**5.33**	This is something I rarely do at our school.

When it comes to the fourth element, the levels of KAP according to the “redistribute” notion of OER. For all the items, something was rarely done, with an overall mean of 5.31. The highest mean is 5.82 on "Delivering numerous types of information resources across different platforms," and the lowest mean is 4.72 on "Producing open-source software," as depicted in Table 5.

Table 5

KAP on the Redistribution Notion in OER

Redistributing in OER agreement level	**Mean**	**Description**
Delivering numerous types of information resources across different platforms.	**5.82**	This is something I rarely do at our school.
Producing open format content for easy use.	**5.54**	This is something I rarely do at our school.
Producing open-source software.	**4.72**	This is something I rarely do at our school.
Providing free of charge content for library users.	**5.67**	This is something I rarely do at our school.
Publishing OER materials under open licenses.	**4.81**	This is something I rarely do at our school.
Overall Mean	**5.31**	This is something I rarely do at our school.

While on the general aspects of KAP's Table 6. General aspects are about the common academic librarians' practices whether with or without OER. These involve topics on advocacy, curation, content development, cataloging and metadata, discovery, funding, information literacy, licensing, policy development, professional development, publishing, recognition, and team members, as also suggested by Braddlee and VanScoy [19] adhering to Smith and Lee's [25] listed roles of librarians in the OER movement. It reveals that the overall mean is 5.27, which is described as "I know this, and I am optimistic/positive about practicing and learning this in school." Among the 13 items, the highest mean of 5.89 is on the statement "Advocacy:

Raising awareness of OER among faculty." The lowest mean of 4.81, described as "I know this, and I am optimistic/positive about practicing and learning this in school," belongs to the statement "Funding: Assisting with funding to support."

Table 6

KAP on the General Aspects of OER

Level of your agreement to the whole concept of OER	Mean	Description
Advocacy: Raising awareness of OER among faculty.	**5.89**	This is something I rarely do at our school.
Curation: Adding OER to library collections.	**5.77**	This is something I rarely do at our school.
Content Development: Creating OER for instruction.	**5.30**	This is something I rarely do at our school.
Cataloging and Metadata: leveraging metadata, indexing, and classification skills to enhance access.	**5.35**	This is something I rarely do at our school.
Discovery: Assisting in locating appropriate OER.	**5.72**	This is something I rarely do at our school.
Funding: Assisting with funding to support	**4.81**	I know this, and I am optimistic/positive about practicing and learning this in school.
Information Literacy: Helping in assessing the quality of OER.	**5.81**	This is something I rarely do at our school.
Licensing: Assisting with understanding licenses; adapting copyright expertise to help manage intellectual property rights.	**5.25**	I know this, and I am optimistic/positive about practicing and learning this in school.
Policy Development: Helping in advancing OER policies.	**5.21**	I know this, and I am optimistic/positive about practicing and learning this in school.
Professional Development: Leading workshops on OER.	**5.23**	I know this, and I am optimistic/positive about practicing and learning this in school.
Publishing: Publish materials under open licenses.	**4.75**	I know this, and I am optimistic/positive about practicing and learning this in school.
Recognition: Providing awards for contributions to OER.	**4.67**	I know this, and I am optimistic/positive about practicing and learning this in school.
Team Members: Serving as experts in OER development.	**4.72**	I know this, and I am optimistic/positive about practicing and learning this in school.
Overall Mean	**5.27**	I know this, and I am optimistic/positive about practicing and learning this in school.

The overall results of KAP on OER is shown in Table 7. It is revealed that the mean of all means is 5.39, described as "This is something I rarely do at our school" and interpreted as "moderately practiced," which means that the respondents moderately performed and integrated

at school and further demonstrated their knowledge and attitude towards OER. The highest overall mean of KAP in all elements of OER openness is 5.75 on reuse, described as "this is something I rarely do at our school" and interpreted as "moderately practiced." This implies that items under reuse were moderately performed and integrated by the respondents in their respective schools, which further indicates that the respondents demonstrated moderate levels of knowledge and attitude. Remix notion of OER openness has the second-highest overall KAP of 5.33, described as "this is something I rarely do at our school" and interpreted as "moderately practiced." This means that the items under "remix" were moderately performed and integrated at school, and the respondents' knowledge and attitude were moderately demonstrated. Second with the lowest overall mean are "revise" and "redistribute," which are 5.31, described as "something I rarely do at our school" and interpreted as "moderately practiced." It implies that librarians performed and were integrated at school and further signifies that those respondents demonstrated their knowledge and attitude toward OER in a moderate manner. The lowest overall mean is 5.27 on "general aspects" of OER. The result, described as "I know this, and I am optimistic/positive about practicing and learning this in school," is interpreted as "knowledgeable with a favorable attitude," which implies that for items under general aspects respondents have the basic knowledge of OER but do not have the experience or skills, but are favorable to implement and positive to gain experience and skills. This further signifies an opportunity to be incorporated into their library's strategic plan.

Table 7

Overall KAP on OER

Notions and Aspects of OER	**Overall Means**	**Description**
Reuse	5.75	This is something I rarely do at our school.
Revise	5.31	This is something I rarely do at our school.
Remix	5.33	This is something I rarely do at our school.
Redistribution	5.31	This is something I rarely do at our school.
General Aspects	5.27	I know this, and I am optimistic/positive about practicing and learning this in school.
Means of all Means	**5.39**	**This is something I rarely do at our school. (Practices)**

4.2. Relationship between KAP OER and Socio-demographics Profiles

On the test of relationship of KAP-OER and the variables sex and highest educational attainment, as illustrated in Table 8, the chi-square test examines the associations between KAP-OER and sex as well as KAP-OER and educational attainment. There is no significant correlation between KAP-OER and the respondents' sex orientation since the $p - value = 0.993$ is greater than the level of significance. Meanwhile, for KAP-OER and educational attainment, with a $p - value = 0.127$ has no significant relationship since it is greater than the significance level.

Table 8

Test of Relationship between KAP-OER & Sex, and Educational Attainment

Variables	χ^2 *value*	*p*-value	Degrees of Freedom	Remarks
Sex	.764	.993	6	Not significant
Highest Educational Attainment	24.937	.127	18	Not significant

Similarly on tests of relationship between KAP - OER and years of service it remarks "not significant." Spearman rho is used to tests if there is a significant relationship. As shown on Table 9 with $p - value = 0.342$. as it exceeds the level of significance, which is 0.05, thus, there is no significant relationship between KAP-OER and the years of service.

Table 9

Test of Relationship between KAP-OER and Years of Service

Variables	r_s value	p-value	Degrees of Freedom	Remarks
Years of Service	.128	.342	55	Not significant

The chi-square test was used to determine the significant relationship between KAP-OER and region, and between KAP-OER and the type of school. Table 10 shows that the resulting $x^2 - value = 80.102$ with a $p - value = 0.600$ has no significant relationship. Likewise, for KAP-OER and type of school, there is no significant relationship since the $p - value = 0.077$ exceeds the level of significance.

Table 10

Test of Relationship between KAP-OER and School Profiles: Region, Type of School

Variables	χ^2 value	*p*-value	degrees of freedom	Remarks
Region	80.102	.600	84	Not significant
Type of School	11.391	0.077	6	Not significant

Spearman rho is used to test if there is a relationship between KAP-OER and the total number of OER resources in HEIs. The resources are classified into four types: print, non-print, subscribed databases, and OER. For KAP-OER and the total number of print sources as shown on Table 11, the resulting $r - value = 0.310$ with a $p - value = 0.019$ reveals a significant relationship. Likewise, the total number of non-print resources with the $p - value = 0.035$ and total OER resources with the $p - value = 0.36$ have significant relationship. In contrast, the KAP-OER and total number of databases subscribed have no significant relationship since the resulting $r - value = 0.143$ with a $p - value = 0.294$ exceeds the level of significance. This proves that not all types of library resources have a significant relationship with KAP-OER.

Table 11

Test of Relationship between KAP-OER and School Profiles (Library resources)

Variables	r_s value	p-value	Degrees of Freedom	Remarks
Total Number of Print Resources	.310	.019	55	Significant
Total Number of Non-print resources	.258	.035	55	Significant

Total Number of Databases Subscribed	.143	.294	55	Not significant
Total OER Sources	.257	.036	55	Significant

4.3. Relationship between KAP OER and Socio-demographics Profiles

On the test of differences on the KAP-OER and the librarians' profiles, One-way ANOVA was used. Table 12 shows that the 'sex' and 'KAP-OER' with the $F - value = 0.324$, with $p - value = 0.572$ showing no significant difference.

Table 12

Test of Differences between KAP-OER and Librarian's Profiles

Profile	F	p-value	Remarks
Sex	.324	.572	Not significant
Highest Educational Attainment	1.200	.319	Not significant
Year of Service	.794	.534	Not significant

Meanwhile, for KAP-OER and the highest educational level, still no significant difference since the $p - value = 0.319$ is higher than the alpha. Finally, for KAP-OER and the number of years of service, still no significant difference since the $p - value = 0.534$ is greater than the level of significance $\alpha = 0.05$. Therefore, overall, there is no significant difference between KAP-OER and the profiles of the respondents.

4.4. Implications

The overall mean suggests that academic librarians' manifest moderate awareness of OER. This study confirms [7] findings that academic librarians are moderately aware of OERs. It suggests that "a lack of familiarity and exposure to OERs may result in poor handling and storage, organization, and marketing of these resources, resulting in low client appreciation and librarians' limited knowledge of OERs, giving clients a moderate impression." Likewise, this study confirms that most librarians are still in the early stage of learning about OER [27]. When it comes to OER openness, this study will affirm the statement of Orzech and Abramovich [27] that librarians are ready, willing, and able to embrace OER.

KAP towards OER in terms of reuse is perceived as being performed and integrated at school. The moderate level of knowledge and attitude demonstrated by the respondents imply that the reuse aspect of OER is yet to pick up momentum and that it needs strong advocacy by the organizations [in this case, HEIs] in OER promotion parallel to the OER movement [1]

Revising OER is something that librarians rarely do in their respective HEI. This study contrasts with the statement that "librarians have taken the lead on OER initiatives" [27] because they only practiced, performed, integrated, and demonstrated their knowledge and attitude moderately which means that the community of practice could be an effective way for academic librarians to become effective OER advocates. They need to know the "still uncommon task of remixing OER to ensure better student engagement and success, especially students who need the most support" [29].

The results imply that the redistribution of OER was practiced, performed, and integrated at a moderate level by librarians. Additionally, there was a moderate demonstration and a moderate level of knowledge and attitude towards redistributing OER.

Results on the overall mean imply that 'general aspects' towards OER are positive. It suggests that librarians are optimistic/positive about practicing and learning on OER. Thus, they have the knowledge and a favorable attitude. This study affirms to findings of Orzech and

Abramovich [27] that the librarians are still in the early stages of learning about OER; however, it does not necessarily mean that they are not comfortable offering OER assistance to others.

The test of the relationship between sex and KAP-OER signifies that being male or female does not matter or affect the KAP. Specifically, the results show that sex has nothing to do with KAP-OER regarding aspects of 4Rs. Likewise, the highest educational attainment is not a factor in the KAP-OER, suggesting that educational attainment does not matter in the KAP-OER. The result can be justified by what Thornton [30] said "librarians learned about OER outside of the library and information science degree programs they attended." Few graduate programs include courses that address these niche specialties in either their elective or required courses. The number of years spent in librarianship is also not a factor in the KAP-OER. The results also mean that the librarianship experience does not affect the librarian's KAP-OER. Furthermore, neither the distribution of respondents nor the nature of the school plays any role in the KAP-OER. The "number of databases subscribed to" by library resources reflects this. On the other hand, the overall quantity of printed and digital materials is important for academic librarians' KAP-OER. The KAP-OER was impacted in terms of library resources. However, being male or female, having a higher level of education, and having a long history of service were found to be irrelevant factors.

CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The findings taken from the result sought show that academic librarians' KAP concerning OER is disclosed at a moderate level of performance, integration, and demonstration based on the 4Rs of openness. In the test of the relationship, the librarian's profile, sex, highest educational attainments, and years of service were not factors for the KAP-OER. Likewise, there is no meaningful relationship between the school profile and the KAP-OER in terms of region, type of school, and one item in terms of library resources. In contrast, there was a significant relationship between the library resources and the KAP-OER, such as the total number of print resources, non-print resources, and OERs. While the librarian's profile and the KAP-OER reveal no significant relationship difference.

This study concludes that the Philippine academic librarians are challenged in terms of 4Rs of OER which means that much more needs to be done to improve academic librarians' attitudes and practices toward openness, thus, need to have necessary interventions. It is imperative to keep academic librarians updated, particularly on OER, through training or capacity building. The elimination of constraints such as a lack of funding, institutional incentives, and assistance for OER initiatives are also required in updating librarians KAP. The librarians' demographic profiles, to some extent, have a relationship with their KAP-OER. Still, the degree of the association is not significant; therefore, the academic librarians' demographic profile cannot be considered a crucial factor for their KAP towards OER. In the same manner, the academic librarians' school profile, to some extent, may also have a relationship with their KAP-OER, but the degree of the association is not significant. Therefore, the academic librarians' school profile cannot be considered an essential variable for the KAP towards OER. Thus, the librarians' demographic and school profiles have nothing to do with their KAP-OER.

It recommends, first, providing the librarians with the necessary seminars and training regarding OER for them to be able to understand it to the full extent. The workshops and training must also equip them with 21st-century librarianship skills, specifically on the four elements of openness of OER: revise, reuse, remix and redistribute. Second, to promote OER through institutional collaboration, funding, institutional incentives, and support for OER activities. Increasing the number of library resources, especially the print and nonprint and OER resources. Third, HEIs should provide an acceptable institutional policy about OER and add the OER as CORE subject to the BLIS curriculum. This study suggests a few possibilities for future

research, including: Revisiting the KAP-OER (within 3 to 5 years intervals and see how the KAP of the Philippine academic librarian differs from previous studies in the field); Research on KAP OER will focus on factors such as connections and contrasts since these variables' p-values might increment their level of relationship concerning academic librarians' KAP; and a KAP study focusing on administrators, librarians, teachers, and students, as well examining and evaluating the knowledge, attitudes, and practices of librarians in third-world countries, and identifying challenges in contrast to those in first-world countries.

Acknowledgements

We want to acknowledge the participants of 7th International Conference on Contemporary Studies on November 24-27, 2023, via Zoom for their comments and suggestions during the earlier version of this paper.

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Text of the article was accepted by Editorial Team 10.12.2023.

ОБІЗНАНІСТЬ, СТАВЛЕННЯ ТА ПРАКТИКИ ЩОДО ВІДКРИТИХ ОСВІТНІХ РЕСУРСІВ У ВИЩИХ НАВЧАЛЬНИХ ЗАКЛАДАХ ФІЛІППІН

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Анотація. Відкриті освітні ресурси (ВОР) добре відомі в усьому світі, і в глобальному масштабі вони роблять значний внесок у роботу вищих навчальних закладів (ВНЗ), що значною мірою відображається в різних країнах Азії. Однак на Філіппінах відчувається недостатньо інформації щодо ВОР та їх впровадження. З оновленням освіти та зміною модальності навчання зростає велика потреба в освітніх ресурсах – безкоштовних і відкритих для громадськості, особливо в умовах пандемії. Крім цього, обмежена інформація ускладнює подальші перспективи з використання ВОР бібліотекарями на практиці. У цій статті розглядаються знання, ставлення та практики (ЗСП) академічних бібліотекарів щодо використання ВОР у вищих навчальних закладах Філіппін. Зокрема стаття спрямована на оцінку рівня ЗСП щодо використання ВОР серед бібліотекарів. У статті досліджується взаємозв'зок між ЗСП-ВОР та профілями академічних бібліотекарів і бібліотек, а також відмінності між ЗСП-ВОР за статтю, рівнем вищої освіти та стажем роботи. Респондентами дослідження стали 57 академічних бібліотекарів з різних ВНЗ Філіппін. Було використано адаптовану анкету, яка адмініструвалась онлайн за допомогою Google-форм. Результати показують, що збільшується практика використання ВОР академічними бібліотекарями в школі. Повторне використання, переробка, ремікс та розповсюдження ВОР на практиці у школі проводиться не часто з коливанням середнього балу від 5,31 до 5,75. Що стосується загальних аспектів ВОР, респонденти демонструють позитивне ставлення з середнім балом 5,27. Не було зафіксовано жодного зв'язку респондентів та профілей бібліотек з ЗСП. Натомість друковані та недруковані ресурси можуть позитивно впливати на ЗСП. Разом з тим дослідження показало, що стать, вищий рівень освіти або кількість років роботи не впливають на ЗСП. Зроблено висновок, що філіппінські академічні бібліотекарі мають проблеми з точки зору ЗСП-ВОР. Отже, необхідна інтенсивна робота з підвищення кваліфікації бібліотекарів, необхідність проведення подальшого дослідження. Пропонується проведення семінарів та тренінгів з використання ВОР, сприяння їх впровадження шляхом співпраці, фінансування, інституційних стимулів.

Ключові слова: цифрова бібліотека; відкриті освітні ресурси; повторний перегляд-використання-ремікс-розповсюдження; гнучке навчання

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