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Knowledge, Preparedness and Challenges in Hyflex Library Operations among Higher Education Institutions (HEIs) Librarians in Calabarzon Philippines

Objective. Traditional library operations have been a staple in society for centuries by providing access to printed books and other resources. However, with the rise of technology, changing patron needs and the crisis induced by the COVID-19 outbreak, librarians adopted the hybrid and flexible (HyFlex) library operations to provide students, faculty, and staff with equitable access to learning resources and services. This study examined the knowledge, preparedness, and challenges associated with HyFlex library operations among librarians in Higher Education Institutions (HEIs) in Cavite, Laguna, Batangas, Rizal and Quezon (Calabarzon) Philippines. **Methods.** Descriptive in nature, the study utilized a survey questionnaire which was accomplished by 148 Higher Education Institutions (HEIs) librarians in Calabarzon. **Results.** Findings revealed that the majority of respondents were female, aged 31 to 40 years old, holding librarian positions, and having 11 to 15 years of service. The findings also indicated that respondents exhibited a very high level of knowledge and preparedness for Hyflex library operations. However, they encountered challenges in implementing hybrid and flexible operations. Additionally, the findings revealed no significant difference in respondents' knowledge of Hyflex library operations when grouped by age, gender, position, or years in service. However, a significant difference was found in respondents' preparedness for Hyflex library operations based on gender, while no significant differences were observed regardless of age, position, or years in service. **Conclusions.** As a whole, the findings suggest that despite the challenges in implementing hybrid and flexible operations, librarians in Higher Education Institutions (HEIs) in Calabarzon have demonstrated a very high level of knowledge and preparedness for Hyflex library operations. Therefore, Higher Education Institutions (HEIs) in Calabarzon should implement the formulated action plan and continue to embrace innovation to enhance practices in hybrid and flexible library operations.

Keywords: HyFlex operations; descriptive research; higher education institutions; academic libraries; Philippines

Introduction

The traditional operations of libraries have been a cornerstone of society for centuries, providing access to printed books and other invaluable resources. These traditional library operations place a strong emphasis on the storage and preservation of physical items, especially books and periodicals, with librarians acting as custodians of these precious collections

(Nageswari & Thanuskodi, 2021). Information is physically gathered in one place, requiring users to visit the library in person to discover its contents and utilize them (Kaur, 2015). However, in response to the rise of technology and evolving patron needs, libraries have had to adapt to remain relevant. Libraries began to embrace the digital realm by curating digital resources that expanded far beyond the constraints of physical shelves. E-books, audiobooks, and digital magazines found a place in virtual catalogs, accessible with a simple click. Online databases brimming with knowledge also became a staple, supporting research endeavors from afar. Makerspaces emerged as creative incubators, where patrons experimented with 3D printers, VR gadgets, and coding projects. Librarians also evolved into tech mentors, guiding novices through the intricacies of smartphones, social media, and data literacy.

On the other hand, the ongoing crisis induced by the COVID-19 outbreak has significantly altered higher education teaching in the country. Libraries are once again challenged to redefine their resources and service offerings, particularly their operations. As a result, faculty and staff at Higher Education Institutions (HEIs), including librarians, have shifted their focus to make resources and instruction more accessible to students. To support both in-person and remote learning, librarians have adopted hybrid and flexible (HyFlex) library operations to provide students, faculty, and staff with equitable access to learning resources and services. To successfully implement these new library operations, librarians should be knowledgeable and prepared for HyFlex library operations.

HyFlex library operations, as defined by Fowke (2018), combine internet technologies, social media, and print resources for clients. Walton and Edwards (2001) describe it as a flexible approach focused on user needs, enabling libraries to adapt and provide personalized solutions, enhancing the patron experience, and improving operational efficiency. Broopy (2020) postulated that HyFlex libraries offer a variety of ways to access resources and services: In-person access, wherein students and researchers can visit the library in person to use print resources, access computers, and meet with librarians. Synchronous online access allows students and researchers to actively participate in library events and programs in real-time over the internet. In contrast, asynchronous online access enables them to access library resources and services at their convenience, from anywhere. HyFlex libraries offer flexibility in how individuals choose to learn. For instance, students can opt for live, in-person lectures or view recorded lectures online, or they can review lecture materials at their own pace. Moreover, HyFlex libraries emphasize online learning and services, providing a broader range of digital resources and programs, along with training and support for those interested in online learning. These libraries also leverage technology extensively, using tools like learning management systems, video conferencing platforms, and other online resources to deliver instruction, provide reference assistance, and facilitate collaboration. Furthermore, HyFlex libraries are known for their adaptable service delivery, often extending their operating hours, offering 24/7 online support, and enabling online service requests (Da Silva, Oppenheim, & Caldas, 2021).

Consequently, academic libraries, according to Allen (2005), must adapt to changing information needs and technology by employing hybrid and flexible librarians who provide adaptable instructional and information services while managing changing physical locations. Verma and Gustafsson (2021) emphasize the importance of adapting resources and services to meet the needs of today's hybrid and flexible library landscape. To ensure successful information dissemination, Nkiko and Iroaganachi (2015) stress the importance of eliminating accessibility barriers, such as format, content, cost, distance, time, and language. Allen (2005) also emphasizes the need for academic organizations to invest in staff training and recruit librarians with diverse skills, including problem-solving, decision-making, and interpersonal skills, beyond technical expertise. Amaechi et al. (2018) identified challenges in implementing hybrid and flexible library

operations, including inadequate funding, undefined policies, and non-compliance with technology demands. Samantha (2020) highlights the need for policies to prevent disease spread when reopening libraries post-epidemic. Walton and Edwards (2001) note academic librarians' challenges in staying relevant in hybrid learning, requiring flexibility in skills, services, timing, and organizational structures.

In the Philippines, the Commission on Higher Education (CHED) mandated flexible learning schemes for academic institutions through CHED (2020) Memorandum Order No. 4, series of 2020. This scheme caters to learners' unique needs in terms of place, pace, process, and products of learning, utilizing both digital and non-digital technology, including face-to-face and out-of-classroom modes. To support this initiative, a memo dated March 24, 2021, outlined guidelines for recalibrating Miscellaneous and Other School Fees (MOSF) during COVID-19, which included the creation or expansion of e-libraries/digital libraries/online libraries. This directive applies to Higher Educational Institutions (HEIs) in the Calabarzon region, primarily larger institutions like universities. These HEIs have already begun implementing hybrid and flexible resources and services, combining traditional and digital approaches to provide researchers with access to data and information sources within their schools.

While several local and foreign studies have explored Hyflex library operations, a limited body of research address the knowledge, preparedness and challenges specific to Higher Education Institutions (HEIs) in Calabarzon, Philippines. The researchers contend that identifying librarians' knowledge, preparedness, and challenges in Hyflex Library Operations can offer empirical insights to library and school administrators. These insights can inform necessary actions, such as facility retrofitting, personnel upskilling, and increased funding for digitalizing library materials. Ultimately, this would enable them to better meet the information needs of their clients in hybrid and flexible learning environments.

Objectives. The study's primary objective was to ascertain the extent of knowledge, preparedness, and challenges associated with HyFlex library operations among librarians at Higher Education Institutions (HEIs) in the Calabarzon region. To achieve this, the study addressed the following sub-problems:

1. Investigated the demographic profile of HEIs librarians, in terms of:
 - Age,
 - Gender,
 - Position/Designation, and
 - Years of service within the institution.
2. Explored the level of knowledge possessed by HEIs librarians concerning HyFlex library operations.
3. Investigated whether a significant difference existed in respondents' levels of knowledge regarding HyFlex library operations when categorized based on their demographic profiles.
4. Examined whether a significant difference existed in respondents' levels of preparedness for HyFlex library operations when categorized based on their demographic profiles.
5. Explored the challenges faced by librarians from Higher Education Institutions (HEIs) in implementing HyFlex library operations.
6. Proposed an action plan based on the study's findings to address the identified issues and enhance HyFlex library operations among librarians from Higher Education Institutions (HEIs) in Calabarzon.

Literature Review

Allen (2021) defines a hybrid and flexible library as an environment that combines physical and virtual services, supporting users' professional activities from information discovery to resource manipulation. Fowke (2018) characterizes these libraries as blending features of public institutions and private associations, offering tangible goods and services encompassing internet technology, social media, and print resources. Broopy (2020) underscores that these libraries aim to integrate technologies from various sources within a working library context and explore integrated systems in both electronic and print environments. They should provide access to diverse resources using different technologies. Waller and Lee (2022) note that libraries are evolving into learning and study spaces catering to various learner styles, offering network access to their databases. Effective flexible libraries include designated group study areas with ICT capabilities, diverse study zones, computer workstations, wireless LAN laptop facilities, adaptable space configurations, and space optimization.

Kaur (2015) observed that with the rise of information and communication technologies in libraries, concerns about irrelevance have diminished. Librarians now operate in a HyFlex library environment. Nwosu (2018) noted that the 21st century features a blend of HyFlex libraries, combining virtual and traditional elements. These libraries use diverse technologies to integrate electronic and print services. Tiwari added that the HyFlex library's versatility addresses the evolving needs of a dispersed user community.

Garrod (2018) outlined key roles and responsibilities in HyFlex libraries: learning facilitators educate users, academic partners build faculty relationships, and metadata specialists manage electronic information resources. Duties encompass resource evaluation, gateway access, and team building involving faculty, IT professionals, course designers, and web experts. Success in this flexible learning environment demands diverse skills and technology proficiency. On the other hand, Frederick and Wolff-Eisenberg's (2020) study found that higher education libraries have redesigned websites, reallocated resources, and enhanced virtual services, including reference, bibliographic instruction, and e-resources like electronic journals and books, to support hybrid learning. In the same vein, Sadueste (2022) discovered high levels of accessibility, usability, and user satisfaction in the hybrid resources and services of academic libraries in Albay province. Moreover, Montero (2021) research revealed that BRLC members are highly ready for library resource and service innovations, with updated online resources, databases, and a revamped reading area supporting the new normal in the learning environment.

Consequently, the Commission on Higher Education has recently set the final standards in operating an academic library, under the CHED (2021) Memorandum Order No. 22, series of 2021, which subject the minimum requirements for libraries in the Higher Education Institutions (HEIs) common to all programs. According to the CMO all types of school under the three-horizontal typology of HEIs, both in the highly urbanized areas as well as in the geographically isolated and disadvantage areas were considered in the preparation of this set of requirements. All institutions are encouraged to go beyond the minimum requirements to be able to adjust to the needs of the 21st century learners and educators in an ever-changing technological society. This will further improve the status and/or standards of the HEIs in terms of programs, resources and services. Moreover, libraries will become more responsive to the requirements of hybrid and flexible learning modalities. Furthermore, the CMO emphasizes that libraries must undergo redefinition, restructuring, and redesign using Information Communication and Technology (ICT) applications to stay relevant and responsive to flexible learning modalities and modern educational needs. This shift entails moving collections and services to online and digital formats. Librarians must exhibit competence, proactivity, and flexibility in managing libraries to adapt to global

changes in information, aggregation, curation, and dissemination. Section 5-a of CMO No. 22, 2021, addresses services and utilization. It mandates libraries to offer a variety of services and tools supporting teaching, research, extension programs, and online teaching. These services encompass reference, library instruction, inter/intra-library loans, document delivery, selective dissemination of information, remote access to electronic resources, and software platforms for plagiarism detection. Innovative and flexible library services should continuously provide students, teaching and non-teaching personnel, and other stakeholders access to information through various means, including virtual libraries, circulation services (both face-to-face and online), book delivery and pick-up, scanning, photocopying, and electronic database instruction and training.

Methods

This study utilized the descriptive research design, as this is the most suitable and appropriate method for the study. The study specifically described the Higher Education Institutions (HEIs) librarians' knowledge, preparedness and challenges on HyFlex library operations. A structured online questionnaire prepared using Google Forms was used to collect the data from the 148 Higher Education Institutions (HEIs) librarians in Calabarzon. Of the 148 target respondents, all answered the instrument representing 100% retrieval rate. The survey was administered from February 15 to March 25, 2023.

The questionnaire was divided into four parts. Part I dealt with the respondent's profile variables. Part II focused on the respondent's level of knowledge on HyFlex library operations; Part III covered the respondents' level of preparedness for HyFlex library operations; and Part IV focuses on the changes of respondents in implementing HyFlex library operations. To further ensure the validity of the questionnaire, it was validated by experts in library management, research and statistics. It was also subjected to reliability testing using Cronbach's Alpha Coefficient. Cronbach's alpha measure showed .812 (good reliability) for knowledge indicators, .831 (good reliability) for preparedness indicators, and .923 (excellent reliability) for challenges indicators. For the statistical description of data, frequency and percentage distribution were used to describe the respondents' profile in terms of age, sex, position/designation and years of service. Weighted mean was used to describe the respondents' level of knowledge, level of preparedness and challenges encountered in Hyflex library operations. Mann-Whitney U test was used to describe the difference in the respondents' level of knowledge and level of preparedness for Hyflex library operations when grouped according to their gender. While analysis of Variance (ANOVA) was used to determine the difference in the respondents' level of knowledge and level of preparedness for Hyflex library operations when grouped according to their age, position/designation and years of service.

Results and Discussion

Analysis and discussion of the knowledge, preparedness and challenges on HyFlex library operations are presented in the succeeding tables and textual presentations. The rank of indicators was determined based on the computed weighted mean, from highest to lowest. In case of similar mean values, averaging the rank numbers and dividing by the number of cases were done.

Table 1

| Profile of the Respondents | | |
|-----------------------------------|------------------|-------------------|
| Profile Variables | Frequency | Percentage |
| Age | | |
| 21-30 years old | 36 | 24.30 |
| 31-40 years old | 76 | 51.40 |
| 41-50 years old | 30 | 20.30 |
| 51-60 years old | 6 | 4.10 |
| Sex | | |
| Male | 21 | 14.20 |
| Female | 127 | 85.80 |
| Position/Designation | | |
| Librarian | 72 | 48.60 |
| LD/CL/UL | 38 | 25.70 |
| Head Librarian | 30 | 20.30 |
| Assistant Librarian | 8 | 5.40 |
| Years in Service | | |
| 5 years and below | 35 | 23.60 |
| 6-10 years | 39 | 26.40 |
| 11-15 years | 51 | 34.50 |
| 16-20 years | 16 | 10.80 |
| 21 years and above | 7 | 4.70 |
| N=148 | | |

Table 1 shows the profile of respondents. Findings revealed that 51.4% were aged 31-40, 24.3% aged 21-30, 20.3% aged 41-50, and 4.1% aged 51-60. Females comprised 85.8%, males 14.2%. Positions included 48.6% Librarians, 25.7% Library Directors, College Librarians, and University Librarians, 20.3% Head Librarians, and 5.4% Assistant Librarians. Regarding years of service, 34.5% had 11-15 years, 26.4% 6-10 years, 23.6% less than 5 years, 10.8% 16-20 years, and 4.7% 21+ years. The typical respondent is a female Librarian aged 31-40 with 11-15 years of service.

Table 2

Respondents' Level of Knowledge on Hyflex Library Operations

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|---|----------------------|------------------------------|-------------|
| 1. I can effectively navigate the library's various online resources and services. | 3.63 | Very High | 1 |
| 2. I am familiar with the different functions related to hybrid and flexible library services. | 3.24 | High | 9.5 |
| 3. I am skilled in locating, choosing, distributing, and arranging materials for hybrid and flexible library operation. | 3.43 | Very High | 4 |
| 4. I can develop and implement comprehensive plan for discoverable and accessible print collections. | 3.24 | High | 9.5 |
| 5. I can integrate all kinds of resources using different technologies from traditional library to the digital library world. | 3.43 | Very High | 4 |
| 6. I am proactive, flexible, and agile in providing library services in hyflex learning environment. | 3.42 | Very High | 6 |
| 7. I am adaptable, flexible and resourceful in managing hyflex library processes. | 3.47 | Very High | 2 |
| 8. I am capable of providing a variety of virtual services that are aligned with the Hyflex learning environment. | 3.38 | Very High | 7 |
| 9. I can provide instructional and information services that are appropriate for the hyflex learning environment. | 3.35 | Very High | 8 |

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| 10. I am capable of handling the increasing user demand for Hyflex library services. | 3.43 | Very High | 4 |
| Overall Weighted Mean | 3.44 | Very High | |

Table 2 depicts the respondents' level of knowledge on hyflex library operations. Findings showed that respondents have high knowledge levels in Hyflex library operations. They excel in navigating online resources (mean 3.63, rank 1) and adapt well to managing Hyflex library processes (mean 3.47, rank 2). Respondents also demonstrate proficiency in handling materials and integrating resources (mean 3.43, rank 4). They are proactive and flexible in offering services (mean 3.42, rank 6) and provide virtual services aligned with Hyflex learning (mean 3.38, rank 7). Additionally, they excel in instructional services for Hyflex learning (mean 3.35, rank 8). Respondents have a good grasp of developing accessible print collections (mean 3.24, rank 9.5). Overall, respondents show very high knowledge in Hyflex library operations (mean 3.44), indicating their readiness to support new learning modes in Higher Education Institutions (HEIs) in Calabarzon. This is congruent with Tella's (2020) assessment of hybrid library operations in Nigerian Universities, revealing that most librarians had some knowledge but had gaps in implementation. Similarly, Bhardwaj and Kanjilal (2020) found that Indian librarians were knowledgeable about hybrid library services. In conclusion, ongoing training and resources are crucial for librarians to effectively aid hybrid and online teaching and learning.

Table 3

Respondents' Level of Preparedness for Hyflex Library Operations

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|--|---------------|-----------------------|------|
| 1. We adopt innovative and creative approaches to information access, and library instruction across teaching and learning modalities to support HyFlex-designed courses. | 3.53 | Very High | 1 |
| 2. The library offered various remote services such as e-Lending, e-Learning and Document Delivery Services for our patrons | 3.38 | Very High | 7.5 |
| 3. The library has provided assistance through the Ask a Librarian chat service, where students have access to librarians' assistance in real-time through a virtual chat. | 3.51 | Very High | 2.5 |
| 4. We developed and implemented comprehensive plan for discoverable and accessible print collections. | 3.38 | Very High | 7.5 |
| 5. We intensify the acquisition of library resources and refashion the delivery of library services in support of hyflex learning environment. | 3.45 | Very High | 6 |
| 6. We developed an online portal for our information literacy and online resources. | 3.24 | High | 9 |
| 7. We extended our services beyond the physical boundaries of the library facility. | 3.48 | Very High | 4 |
| 8. The library began digitizing its collections in support of the hyflex learning needs of the students. | 3.22 | High | 10 |
| 9. The library provides a variety of virtual services aligned with the hyflex learning environment. | 3.51 | Very High | 2.5 |
| 10. We enriched our library collections, such as printed books, periodicals, media, and electronic titles (e-books). | 3.47 | Very High | 5 |
| Overall Weighted Mean | 3.46 | Very High | |

Table 3 summarizes respondents' high preparedness for Hyflex library operations. They excel in innovative approaches to information access and instruction (mean: 3.53, rank: 1), offer

virtual services like Ask a Librarian chat (mean: 3.51, rank: 2.5), extend services beyond the library (mean: 3.48, rank: 4), enrich library collections (mean: 3.47, rank: 5), intensify resource acquisition (mean: 3.45, rank: 6), and implement comprehensive plans (mean: 3.38, rank: 7.5). They've also developed online portals for information literacy (mean: 3.24, rank: 9) and started digitizing collections (mean: 3.2, rank: 10). Overall, respondents are well-prepared for Hyflex library operations, with a mean of 3.46, indicating readiness among Higher Education Institutions (HEIs) librarians in Calabarzon to support new learning modalities.

The findings align with Montero (2021), showing high preparedness among BRLC members in library resources and services. They adapt innovations like online resources, rearranging library furniture for more reading space for the new normal. Similarly, Mathabela (2021) noted improved user services, including building access, electronic resources, and information services for online classes. Libraries are catering to increased online class needs (Chiwada, 2021).

Table 4

Difference in the Respondents' Level of Knowledge on Hyflex Library Operations When Grouped According to Their Profile Variables

| Profile Variables | Mean | Inferential Statistics | p-value | Decision | Interpretation | |
|-----------------------------|---------------------|------------------------|-----------------------|----------|-----------------------------|-----------------|
| Age | 21-30 years old | 3.40 | F=1.116 | .345 | H ₀ not rejected | Not Significant |
| | 31-40 years old | 3.48 | | | | |
| | 41-50 years old | 3.38 | | | | |
| | 51-60 years old | 3.55 | | | | |
| Sex | Male | 3.41 | U=1289.500 Z=-.244 | .808 | H ₀ not rejected | Not Significant |
| | Female | 3.45 | | | | |
| Position/Designation | Librarian | 3.44 | F=.825 | .482 | H ₀ not rejected | Not Significant |
| | LD/CL/UL | 3.39 | | | | |
| | Head Librarian | 3.48 | | | | |
| | Assistant Librarian | 3.57 | | | | |
| Years in Service | 5 years and below | 3.45 | F=.069 | .991 | H ₀ not rejected | Not Significant |
| | 6-10 years | 3.44 | | | | |
| | 11-15 years | 3.43 | | | | |
| | 16-20 years | 3.46 | | | | |
| | 21 years and above | 3.40 | | | | |

***Significant @.05**

For differences in respondents' knowledge of Hyflex library operations based on age (F=1.116), gender (U=1289.500; Z=-.244), position (F=.825), and years in service (F=.069), p-values of .345, .808, .482, and .991 were obtained. All p-values exceeded the significance level of .05, indicating no significant difference. This suggests that respondents have similar knowledge of Hyflex library operations, regardless of age, gender, position, or years in service. Various factors like training, education, resource access, and individual technology interest affect librarians' knowledge (Beatty, 2019). Addressing these factors is crucial to ensure librarians possess the necessary skills for hybrid library operations. Allen (2005) adds that academic librarians should expand their skills, encompassing technology, problem-solving, decision-making, and interpersonal abilities.

Table 5

Difference in the Respondents' Level of Preparedness for Hyflex Library Operations When Grouped According to Their Profile Variables

| Profile Variables | Mean | Inferential Statistics | p-value | Decision | Interpretation | |
|-----------------------------|------------------------------------|------------------------|-----------------------|----------|-----------------------------|-----------------|
| Age | 21-30 years old | 3.50 | F=.231 | .875 | H ₀ not rejected | Not Significant |
| | 31-40 years old | 3.45 | | | | |
| | 41-50 years old | 3.43 | | | | |
| | 51-60 years old | 3.43 | | | | |
| Sex | Male | 3.43 | U=852.500 Z=-2.669 | .008 | H ₀ rejected | Significant |
| | Female | 3.61 | | | | |
| Position/Designation | Librarian | 3.49 | F=1.596 | .193 | H ₀ not rejected | Not Significant |
| | LD/CL/UL | 3.38 | | | | |
| | Head Librarian Assistant Librarian | 3.43 3.61 | | | | |
| Years in Service | 5 years and below | 3.58 | F=2.098 | .084 | H ₀ not rejected | Not Significant |
| | 6-10 years | 3.37 | | | | |
| | 11-15 years | 3.45 | | | | |
| | 16-20 years | 3.39 | | | | |
| | 21 years and above | 3.56 | | | | |

***Significant @.05**

As shown in Table 5, a significant gender-based difference in preparedness for Hyflex library operations is evident (U=852.500; Z=-2.669, p=.008). Female respondents exhibit higher preparedness compared to males. This could be attributed to their active involvement in professional activities like training and seminars (Yousaf, Mohammad & Soroya, 2013). However, no significant differences were observed based on age (F=.231), position (F=1.596), and years in service (F=2.098) with p-values of .875, .193, .084, respectively. This means that the respondents have the same level of preparedness for Hyflex library operations regardless of their age, gender, position and years in service. These findings differ from Bhardwaj and Kanjilal (2020), who noted varying preparedness levels based on demographics. Factors like training and resource access play pivotal roles (Bhardwaj & Kanjilal, 2020). Equal opportunities for training and resource provision are crucial and professional development enhances preparedness for hybrid learning environments (Goodsett, 2019).

Table 6

Challenges Encountered in Implementing Hyflex Library Operations

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|--|---------------|-----------------------|------|
| 1. A limited number of users utilize our library resources. | 3.28 | Strongly Agree | 3 |
| 2. Slow acquisition of requested library materials for hyflex library operation. | 3.26 | Strongly Agree | 4.5 |
| 3. Slow internet connectivity disrupts efficient delivery of online library services. | 3.30 | Strongly Agree | 1.5 |
| 4. Reduced number of library staff. | 3.20 | Agree | 9.5 |
| 5. Lack of funds to acquire materials for hyflex library operation. | 3.30 | Strongly Agree | 1.5 |
| 6. The library experienced barriers on the transformation from physical collection to digital formats. | 3.26 | Strongly Agree | 4.5 |
| 7. Lack of support of school administration. | 3.20 | Agree | 9.5 |

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| 8. Library clients are not aware on the various resources and services offered by the library. | 3.23 | Agree | 6.5 |
| 9. Difficulty in balancing library collection vis-à-vis print and online. | 3.23 | Agree | 6.5 |
| 10. Lack of skills to successfully promote the hybrid and flexible resources and services of the library. | 3.21 | Agree | 8 |
| Overall Weighted Mean | 3.25 | Strongly Agree | |

Table 6 shows the challenges of HEIs librarians in implementing Hyflex Library Operations. Findings revealed that librarians encounter obstacles due to limited funds for materials, slow internet, and reduced user engagement, all scoring high on the difficulty scale. Transitioning from physical to digital formats and acquiring requested materials for Hyflex libraries are also problematic. Additionally, librarians struggle with balancing print and online collections and students' lack of awareness about available resources. They find it somewhat challenging to promote hybrid library services due to insufficient skills. Conversely, reduced staff and limited support from school administration are comparatively less challenging. In summary, HEIs librarians in Calabarzon face significant difficulties in implementing hybrid and flexible library operations, with an overall weighted mean difficulty rating of 3.25

Similar challenges were identified in recent studies. Rafiq M., Batool S. H., Ali A. F. and Ullah M. (2021) found that barriers to hybrid library operations included digital divide, low digital literacy, slow internet, and reduced online resource usage. Sadueste (2022) highlighted high internet costs and power outages as challenges for library professionals. Jeremia and Mwantimwa (2022) noted staff's lack of skills in promoting online services, hindering hybrid library implementation. Additionally, Malabanan, Galicia, & Navarro (2021) reported challenges such as transitioning to digital collections, budget cuts, and reduced usage of physical materials among academic librarians in Calabarzon.

Proposed Action Plan

The plan was proposed for the sustainability and development in Hyflex library operations. These action plans are significantly important as measures on addressing the weaknesses based on the findings of the study.

Table 7

The Proposed Action Plan to Address the Weaknesses Based on the Findings of the Study

| Area Thrust | Objectives | Strategies | Time Frame | Person Involved | Source of Funds | Success Indicators |
|---|--|--|------------|---------------------------------|-----------------|--|
| Familiarization with the different functions related to hybrid and flexible library services | To provide capability training and skills development for library personnel. | Continuous professional development through attending webinars, trainings, and workshops that focus on hybrid and flexible library operations. | Year Round | Head Librarian Library Staff | Library Budget | Library staff have the necessary knowledge and skills to effectively implement the hybrid and flexible library operations. |

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|---|--|---|------------|--|------------------------|--|
| Comprehensive plan for discoverable and accessible printed collections | To develop and implement comprehensive plan for discoverable and accessible printed collections. | Provide remote access to printed collections to enable the users to access the collections remotely through online platforms, such as a virtual assistance service, a document delivery system, chat services, and e-mail support. | Year Round | Head Librarian Library Staff | Library Budget | Library users can easily access/ utilize the various printed collections remotely. |
| Digitization of Library Resources | To provide digital library resources accessible and flexible to all library users | Provide a comprehensive and diverse flexible digital library resources easily accessible to users. | 6 months | Head Librarian Library Staff | Library Budget | 30-50% of the library's resources are available in digital copy. |
| Support of school administration | To provide adequate library funding that support the hyflex library operation. To develop and implement policies that support the hyflex library operation. | Conduct a needs assessment to determine the types of resources and services that are needed by students and faculty members, and allocate/ increased funding accordingly. Set clear policy goals that align with the library's mission in hyflex library operation and monitor library policy implementation to ensure that they are effectively executed and updated as needed to meet the changing demands of users. | Year Round | School Administrators Head Librarian | School/ Library Budget | Library staff can efficiently develop and provide flexible library resources and services to the patrons. |
| Request for additional library staff. | To provide adequate and qualified number of library personnel | Employ an adequate number of qualified library personnel to ensure quality library and information service at the Hyflex library operation. | 2 months | School Administrators/ HR/ Head Librarian | | The library has a sufficient number of library staff that provide quality library and information service at the Hyflex library operation. |

Conclusions

Higher Education Institutions (HEIs) libraries in the Philippines have transitioned from traditional to hybrid and flexible (HyFlex) operations due to technological advancements, evolving patron needs, and the ongoing COVID-19 crisis. HyFlex library operations encompass a blend of internet technology, social media, and printed resources for its users. These operations improve

the patron experience by providing numerous ways of accessing information and resources while also increasing the efficiency and effectiveness of library services.

The findings imply that HEI librarians have an extensive understanding of HyFlex library operations, as well as a diverse set of plans, resources, and training. HEI librarians demonstrate the same level of knowledge and preparedness for HyFlex library operations regardless of their age, gender, rank, or years of service. However, they face obstacles when it comes to establishing hybrid and flexible library operations, most notably a lack of funding to acquire items for HyFlex library operations and poor internet connections that impede the efficient delivery of online library services.

The following recommendations were proposed to improve HyFlex library operations practices:

1. Academic librarians should work with their colleagues, including IT professionals, faculty members, and students, to design and implement effective hybrid and flexible library operations strategies.
2. HEIs librarians should continue to participate in professional development training, workshops, and conferences focusing on hybrid and flexible library operations. These events can provide training on the newest developments in technology and practices to help them improve their knowledge and skills in HyFlex library operations.
3. HEIs librarians should stay updated on current trends and best practices in hybrid and flexible library operations in order to continuously enhance their preparedness and provide effective support to their users.
4. HEIs librarians should establish partnerships with other libraries and organizations to share resources, pool expertise, and collaborate on solutions to common challenges in hybrid and flexible library operations.
5. Academic administrators should provide ongoing support for retrofitting library facilities, resources, and services to assist HEIs librarians and staff in adapting to changes in workflows, technology, and user needs.

REFERENCES

- Allen, L. (2005, April). Hybrid librarians in the 21st century library: A collaborative service-staffing model. In *ACRL 12th National Conference "Currents and Convergence: Navigating the Rivers of Change"*. Minneapolis, Minnesota. Retrieved from <https://alair.ala.org/handle/11213/17058> (in English)
- Amaechi, N. M., Enweani, U. V., & Eke, C. C. (2018). Challenges to library and information services (LIS) delivery in the 21st century: The situation in three academic libraries in Imo State, Nigeria. *Library Philosophy and Practice (e-journal)*, 2075. Retrieved from <http://digitalcommons.unl.edu/libphilprac/2075> (in English)
- Beatty, B. J. (2019). Hybrid-flexible course bibliometric analysis and information mapping. *Indonesian Journal of Librarianship*, 2(1). (in English)
- Bhardwaj, R. K., & Kanjilal, U. (2020). Assessing the preparedness of academic librarians in developing countries for hybrid library services: The Indian experience. *The Electronic Library*, 32(5), 719-733. doi: 10.1108/EL-03-2020-0049 (in English)
- Broopy, P. (2020). *Digital library research review: Final report*. Library & Information Commission, London. Retrieved from <http://www.cerlim.ac.uk/consult/dlrr.rtf> (in English)
- CHED. (2020). *Guidelines on the implementation of flexible learning*. CHED Memorandum Order No. 4, 2020. (in English)

- CHED. (2021). *CHED Memorandum Order No. 22, 2021: Minimum requirements for libraries of higher education institutions common to all programs*. (in English)
- Chiwada, J. P. (2021). Opportunities and challenges offered by the effects of the COVID-19 pandemic on academic libraries. In *Handbook of research on library response to the COVID-19 pandemic* (pp. 342-357). IGI Global. doi: 10.4018/978-1-7998-6449-3.ch018 (in English)
- Da Silva, R. F., Oppenheim, C., & Caldas, R. F. (2021). What is a hybrid library? Evidence from Scotland and Brazil. *IBIMA Business Review*. doi: 10.5171/2021.921538 (in English)
- Fowke, G. (2018). Librarians before congress: advocacy and identity. *Legal Reference Services Quarterly*, 37(3/4). doi: 10.1080/0270319X.2018.1580101 (in English)
- Jeremia, A., & Mwantimwa, K. (2022). Marketing hybrid library collections and services: competencies, perceived impact and challenges. *The Journal of Academic Librarianship*, 48(4), 102556. doi: https://doi.org/10.1016/j.acalib.2022.102556 (in English)
- Kaur, H. (2015). *Role of digital libraries in the present era: challenges and issues*. In *Handbook of Research on Inventive Digital Tools for Collection Management and Development in Modern Libraries* (pp. 86-102). IGI Global. doi: https://doi.org/10.4018/978-1-4666-8178-1.ch006 (in English)
- Malabanan, E. D., Galicia, L. S., & Navarro, M. R. V. (2021). Challenges and strategies of academic libraries during Covid-19 crisis among NOCEI member schools in the Philippines. *University Library at a New Stage of Social Communications Development. Conference Proceedings*, 6, 20-29. doi: https://doi.org/10.15802/unilib/2021_249558 (in English)
- Mathabela, N. N. (2021). Library services during the Covid-19 pandemic: A case of the University of Eswatini (UNESWA). *The Christian Librarian*, 64(1). doi: https://doi.org/10.55221/2572-7478.2257 (in English)
- Montero, H. (2021). *Readiness, innovation and practices in resources and service delivery of Bicol Region Librarian's Council in the new normal*. (Unpublished Master's Thesis). University of Perpetual Help System Laguna (in English)
- Nageswari, N., & Thanuskodi, S. (2021). Usage of public library services in Long Beach City, California-USA during Covid-19 pandemic: An analysis. *International Journal of Information Science and Management (IJISM)*, 19(2), 49-64. (in English)
- Nkiko, C., & Iroaganachi, M. A. (2015). *Community-focused selective dissemination of information services for empowering women through information provision and utilization: Center for Learning Resources as a catalyst for social change*. IFLA World Library and Information Congress, Cape Town, South Africa. Retrieved from http://www.ifla.org/files/assets/reference-and-information-services/publications/005_iroaganachi_en.pdf (in English)
- Rafiq, M., Batool, S. H., Ali, A. F., & Ullah, M. (2021). University libraries response to COVID19 pandemic: A developing country perspective. *The Journal of Academic Librarianship*, 47(1), 253-261. doi: https://doi.org/10.1016/j.acalib.2020.102280 (in English)
- Sadueste, A. B. (2022). *Accessibility, usability and satisfaction of library users in the hybrid resources and services of academic libraries in the Province of Albay*. (Unpublished Master's Thesis). University of Perpetual Help System Laguna (in English)
- Samantha, M. (2020). Library access policies post COVID-19 pandemic. *SSRN Electronic Journal*. doi: <http://dx.doi.org/10.2139/ssrn.3610042> (in English)
- Tella, A. A. (2020). Assessing Hybrid Library Services and the Role of Academic Librarians: A Case Study by Two Nigerian Universities. *Libraries and the Academy*. Retrieved from <https://www.press.jhu.edu/journals/portal-libraries-and-academy> (in English)

- Verma, S., & Gustafsson, A. (2020). Investigating the emerging COVID-19 research trends in the field of business and management: A bibliometric analysis approach. *Journal of Business Research*, 118, 253-261. doi: <https://doi.org/10.1016/j.jbusres.2020.06.057> (in English)
- Walton, G., & Edwards, C. (2001). Flexibility in higher education hybrid libraries: exploring the implications and producing a model of practice. *Journal of Librarianship and Information Science*, 33(4), 199-208. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/096100060103300405> (in English)
- Yousaf, A., Muhammad, M., & Soroya, S. (2013). Management issues for female librarians: A case study of University of the Punjab. *Library Philosophy and Practice (e-journal)*. Retrieved from <https://digitalcommons.unl.edu/libphilprac/930> (in English)

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Знання, підготовленість та виклики у гібридній бібліотечній діяльності бібліотек закладів вищої освіти (ЗВО) в регіоні Калабарсон (Філіппіни)

Мета. Традиційна бібліотечна діяльність протягом століть була основою суспільства, забезпечуючи доступ до друкованих книг та інших ресурсів. Однак з розвитком технологій, зміною потреб користувачів та кризою, спричиненою спалахом COVID-19, бібліотекарі запровадили гібридні та гнучкі бібліотечні послуги (HyFlex), щоб забезпечити студентам, викладачам та працівникам рівний доступ до навчальних ресурсів та послуг. Це дослідження вивчало знання, готовність та виклики, пов'язані з роботою бібліотек HyFlex, серед бібліотекарів закладів вищої освіти (ЗВО) у Кавіте, Лагуні, Батангасі, Рісалі та Кесоні (Калабарсон), Філіппіни. **Методика.** Дослідження є описовим за своєю природою, в ньому використовувалася самостійно розроблена анкета, яку заповнили 148 бібліотекарів ЗВО Калабарсону. **Результати.** Результати показали, що більшість респондентів – жінки, віком від 31 до 40 років, які займають посади бібліотекарів і мають стаж роботи від 11 до 15 років. Результати також показали, що респонденти продемонстрували дуже високий рівень знань і підготовленості до роботи в бібліотеці HyFlex. Однак вони зіткнулися з проблемами у впровадженні гібридних і гнучких операцій. Крім того, результати дослідження не виявили суттєвих відмінностей у знаннях респондентів щодо роботи бібліотек з HyFlex, якщо їх згрупувати за віком, статтю, посадою чи стажем роботи. Однак було виявлено значну різницю в готовності респондентів до роботи в бібліотеках HyFlex залежно від статі, тоді як не було виявлено значних відмінностей незалежно від віку, посади чи стажу роботи. **Висновки.** В цілому, результати дослідження свідчать про те, що, незважаючи на виклики, пов'язані з впровадженням гібридних і гнучких операцій, бібліотекарі ЗВО Калабарсону продемонстрували дуже високий рівень знань і підготовленості до роботи в умовах HyFlex бібліотек. Таким чином, закладам вищої освіти Калабарсон необхідно впроваджувати розроблений план дій і продовжувати адаптувати інновації для вдосконалення практик гібридної та гнучкої роботи бібліотек.

Ключові слова: операції HyFlex; описові дослідження; заклади вищої освіти; академічні бібліотеки; Філіппіни

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