Status of Library Spaces and Facilities in University Libraries in Kenya

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ABSTRACT

In the global sphere, university library users' needs continue to change thus university libraries are repositioning themselves to address the changing users' needs. An important aspect of the change revolves around the library space and many university libraries are making efforts to change their spaces to meet the need driven by information technology, improved higher education systems and shifting of users' expectations. This paper discusses the status of library spaces in Kenyan university libraries and is based on research conducted using pragmatic research paradigm and a convergent mixed methods design and multiple case studies strategy. The study population was university library users in Kenya consisting of six (6) participating universities (three public and three private) purposefully selected based on their age (time they have been in existence). Students and academic staff participated in a survey; librarians participated in focus groups while university librarians had interviews. This study collected data through online questionnaires, online focus group discussions and telephone call interviews. The qualitative data was thematically analysed while the quantitative data adopted a statistical approach that encompasses descriptive statistics. The results show some common available library spaces among the university libraries, the most preferred available library spaces and most frequently used library spaces by the users on daily basis. The study recommends continuous assessment of library spaces in the universities in order to understand library users' needs and make informed decisions.

Keywords: Academic Libraries, Changing Users' Needs, Existing Library Spaces, Library Users' Preference, Kenya.

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I. INTRODUCTION

University library users' needs continue to change and consequently, libraries are repositioning themselves to address the changing users' needs. An important aspect of the change revolves around the library space. Therefore, many university libraries are making efforts to change their spaces to meet emerging user expectations which are driven by the advancement of information technology and improved higher education systems. In Kenya, available evidence indicates that the efforts to remodel library spaces to meet users' needs do not adequately involve in the users (Musangi *et al.*, 2019; Ateka, 2018; Wanyonyi, 2018; Ellison, 2016). Inevitably, this leads to reconfigured library spaces which do not meet the users' needs effectively. This implies that the money, time and other being spent on library reconfiguration projects may not achieve the desired outcomes.

Although a fairly recent occurrence in Kenya, the drive to remodel library spaces began in late 1980s and gathered momentum in the 1990s in the developed countries (Swamy *et al.*, 2015). Advances in Information and Communication Technology (ICT) and shifts in education systems have influenced the user needs making them dynamic and unpredictable. With this, many university libraries have reduced the space occupied by print collections. The challenge they now face is how to maximise these spaces to support learning in their parent institutions. One of the strategies is to reconfigure libraries as learning spaces or educational and technology hubs with the aim of contributing effectively to the learning process. Scholars such as Decker (2020) emphasise the need for university libraries to engage their users comprehensively in their space planning projects. This is because feedback from the library users provides experiential and valuable insights on their needs. Other scholars (Cobblah & Van Der Walt, 2016; O'Sullivan & Partridge, 2016) also opine that adopting user-centred approaches to managing the evolving user needs and expectations is one of the most effective strategies to managing constant change in university libraries.

Studies on university library space reconfiguration in Kenya reveal inadequacies in the involvement of users in the projects. Ateka (2018) argued that the views of librarians were solicited more than those of students. She pointed out the need to involve students in library space reconfiguration projects.

She further asserted that librarians can no longer assume that they know and understand the users' needs. Musangi *et al.* (2019) advocated the use of technologies and innovations in priming library spaces for transformed user experiences. Therefore, for university libraries to succeed in reconfiguring spaces whether virtual, physical or cultural, users' feedback should be considered before embarking on the exercise to avoid ending up with unsuitable models.

II. Literature Review

Findings in DeVille and Sughrue (2023) study showed that participants agreed that using library spaces contributed to their ability to study independently and to interact with their peers on group projects and assignments depending on the spaces available.

It is evident from the studies conducted on university library spaces that the debate on spaces has gained strategic focus in the higher education sector. Mounting pressure to have more usable and efficient spaces has resulted in librarians working together with the stakeholders to develop spaces that are attractive to the users in various ways for instance, flexible teaching, learning and research spaces. All this is done with the optimism that once library spaces are reconfigured, they could bring in more users, support teaching and learning and result into efficient utilisation of the available spaces. However, unless these efforts are informed by factual data on the library space options that the users need, Teleha *et al.* (2017) caution that it would be difficult to reconfigure spaces that suit all the space needs. Fakoya-Michael and Fakoya (2019) echo the same sentiments and assert that librarians ought to be aware of their users' space needs and the means to effectively address them.

The argument being advanced in this paper is that the starting point in the reconfiguration of library spaces is to be aware of the current status of the spaces in university libraries paying attention to contextual factors library users in Kenya present. In so doing, gaps that exist will easily be established once the users are brought on board.

Kenyan university education has passed through tremendous growth and expansion in the recent past and this is not a unique situation to Kenya or the developing world but a scenario experienced the world over. Nations have taken higher education to be a driver of socio-economic development where universities are expected to equip the citizens with relevant knowledge and skills through various academic programmes and knowledge generated through research (Chepkwony, 2012; Commission for University Education, 2017; Kenya Universities and Colleges Central Placement Service, 2019/2020).

Similar to other developing nations, the growth and expansion pointed out above came with its challenges. According to Ateka (2018), some of the challenges that continue to be devil higher education in Kenya are: dwindling budgets, limited teaching and learning facilities, inadequate or poorly trained staff, poor governance, as well as new and ever-changing technologies and pedagogies. Ateka (2018) also observed that the expansion, especially in public universities, was not well planned. Small middle-level colleges and polytechnics were quickly converted to universities putting a strain on the existing facilities and staff. These newly converted universities are struggling to establish and achieve university image with regard to their buildings, facilities and staff.

The changes and challenges that affect the universities also affect the libraries in their respective universities. The new universities have to build libraries whereas the old ones either construct new library buildings or renovate existing ones in order to accommodate the changes. This scenario has given the university libraries an opportunity not only to cater for the increased number of users but also the varied and changing user needs and expectations.

Makori (2009) pointed out that Kenyan libraries faced myriad challenges. Some of the challenges include: information environment and media landscape, technological innovation, user expectations and economic forces that continue to influence the physical library premises. The earlier image of a collection-based library is paving way for a communication-based library. Hellen (2007) acknowledges that the new information society comprises of new web-based library services and access to digital resources that require new approaches. The emphasis on library spaces is about spaces where users can interact with the collections, information technology and the available library services. In order to effect the needed changes, the financial factor cannot be ignored including skills and competencies of the librarians and other university stakeholders. Makori (2009) recommended that libraries ought to adopt innovative ways to deliver services. This view was echoed by Harbo and Hansen (2012). Some of the challenges pointed out by Makori (2009) appear to persist in the Kenyan higher education institutions as reviewed in Ateka (2018) study. The Commission for University Education (2017) provides standards and guidelines to be followed by university libraries in Kenya. Pertaining to library space design, the standards require that a library building ought to facilitate and provide services that align to the changing library and information needs for teaching and learning. In other words, the Commission requires a library building that is flexible and adaptable to accommodate changes.

In response to this call, university libraries in Kenya are trying to reconfigure their spaces as part of their efforts to adhere to the provided guidelines as well as to satisfy the emerging space needs of their users. However, reviewed literature reveals that these efforts are still in their initial stages. Otike and Omboi (2010) highlighted various challenges that university libraries in Kenya have to contend with. On library buildings and facilities, they pointed out that majority of the libraries are housed in buildings which were not meant for libraries but for other purposes. Therefore, the librarian is left with the work of internally redesigning the building. Adding to Otike and Omboi (2010) study is Ateka's (2018) views on challenges that continue to affect higher education in Kenya.

The study by Ateka (2018) indicates that Kenyan university libraries are slowly learning from their counterparts in the West and observing how the existing spaces are utilised and trying to work towards creating spaces that foster inspiration, collaboration, interaction and creativity. The study by Ateka (2018) shows that there has been a positive change in Kenyan university libraries. The libraries are learning from the rest of the world and putting it into practice. Notwithstanding the changes that may have taken place over the years since the above mentioned observations were made, new studies are required to be conducted to find out if the situation has changed.

III. Research Methodology

The objectives of this research were to assess types of available library spaces in Kenyan universities; examine the frequency in using the available spaces and investigate time period academic staff and students visited the library.

This paper adopted a pragmatic research philosophy and employed convergent mixed methods design and multiple case studies strategy. The study population consisted of university library users (students, academic staff) and librarians in Kenya. Six (6) universities (three public and three private) were purposefully selected to participate in the study based on their age (time they have been in existence). The paper assumes that the combination of public and private universities, coupled with the different phases of infrastructure, would provide a clear picture of university libraries responsiveness to the library space users' needs. The mode of funding public and private universities in Kenya is different. Data was collected from students and academic staff using online questionnaires; from librarians using focus groups; and from the university librarians (library directors) using telephone call interviews. Out of the 1467 questionnaires administered to university students, 785 were properly filled and returned representing a 53.5% response rate. This response rate was considered as satisfactory enough for a viable study. Also, 863 academic staff out of 1288 participated in the study representing a 67.0% response rate which was deemed as adequate for the study. The number of entries was all above 50% which in survey research is considered excellent and sufficient to inform the study. The qualitative data was thematically analysed while the quantitative data adopted a statistical approach that encompasses descriptive statistics.

IV. Results

The results of the study on the status of library spaces and spaces are presented as per the objectives. The objectives of this paper were to;
    i. Assess the types of spaces available in Kenyan universities;
    ii. Examine the frequency in using the available spaces in the library;
    iii. Investigate time duration the academic staff and students visited the library.

The respondents were asked to select the type of available spaces found in their libraries and they could select more than one type of space.The study investigated the status of library spaces and facilities using descriptive results presented as percentages, means and standard deviations, qualitative descriptions and excerpts of findings.

V. Available Spaces in the Library

The results on types of spaces available in the library are shown in Table I.

The results show that the six university libraries in Kenya had seven (7) common available library spaces (circulation area, reference section, serial section, general reading area, computer laboratory, study carrels and discussion rooms). Meeting /conference room was also available in five (5) libraries except in one (1) private university. In addition, food and drinks area was available in all the other five (5) university libraries except one (1) private university library. Among the listed library spaces, two of the spaces were recorded unavailable by all the six (6) university libraries (a place to make phone calls and a place for a nap/sleep).

TABLE I: AVAILABLE LIBRARY SPACES BY UNIVERSITY

Available library spaces	University libraries					
	Public			Private		
	LIB1	LIB2	LIB3	LIB1	LIB2	LIB3
Circulation area	✓	✓	✓	✓	✓	✓
Reference section	✓	✓	✓	✓	✓	✓
Serial section	✓	✓	✓	✓	✓	✓
General reading area	✓	✓	✓	✓	✓	✓
Computer laboratory	✓	✓	✓	✓	✓	✓
Study carrels	✓	✓	✓	✓	✓	✓
Discussion rooms	✓	✓	✓	✓	✓	✓
Meeting/conference room	✓	✓	✓	x	✓	✓
Food and drinks area	✓	✓	✓	x	✓	✓
Place to make phone calls	x	x	x	x	x	x
Relaxing area/Lounge	✓	✓	✓	x	✓	✓

A. Preference of the Available Library Spaces

The academic staff and students were also asked to indicate their preferences of the library spaces. The ranking of the facilities are presented in Table II.

TABLE II: RANKING BY PREFERENCE OF THE AVAILABLE LIBRARY SPACES BY LIBRARY USERS

Available library spaces	Academic Staff (n=1288)			Students (n=1467)		
	F	%	Rank	F	%	Rank
Circulation area	696	80.6	**4**	519	66.1	**4**
Reference section	752	87.1	**1**	622	79.2	**2**
Serial section	440	51.0	**6**	390	49.7	**7**
General reading area	744	86.2	**2**	676	86.1	**1**
Computer laboratory	528	61.2	**5**	600	76.4	**3**
Study carrels	697	80.8	**3**	455	58.0	**5**
Discussion rooms	384	44.5	**8**	433	55.2	**6**
Meeting/conference room.	424	49.1	**7**	285	36.3	**8**
Food and drinks area	136	15.8	**10**	98	12.5	**11**
Place to make phone calls	85	9.8	**11**	108	13.8	**10**
Relaxing area/Lounge	263	30.5	**9**	198	25.2	**9**
Place for a nap / sleep to rest	54	6.3	**12**	55	7.0	**12**

Based on the results on Fig. 1, there were library spaces that were ranked by similar percentage by academic staff and students. For instance, the general reading area had 86.2% and 86.1% for academic staff and students respectively. On ranking, academic staff ranked general reading area second whereas students ranked it first. The first position for academic staff was the reference section. Similar percentage in the two user groups was also noted on serials section at 51.0% and 49.7% for academic staff and students respectively. A place for a nap gathered 6.3% and 7.0% for academic staff and students respectively and it was ranked last (twelfth) by both user groups.

On the other hand, there were library spaces that registered much difference in the percentages. For example, circulation area had 80.6% and 66.1%, computer laboratory 61.2% and76.4%, study carrels 80.6% and58.0%, meeting room 49.1% and 36.3% for academic staff and students respectively. However, ranking for circulation area for academic staff and students was the same at fourth position.

Interviews with librarians (Library Directors) provided insights on the emerging trends in regard to library spaces. According to Librarian 1, libraries have embraced more liberal spaces and facilities as explained in the verbatim statement hereunder:

My library currently has discussion rooms for post-graduates to discuss research work, meet supervisors and hold virtual conferences with supervisors. We also have quiet spaces, open reading areas for students and study carrels, spaces for post-graduate students to undertake intensive research as important. In addition, we have a data centre where researchers can access information easily, an archive for curated information resources, and publication support facilities. We recognise all these as essential spaces in a modernised library facility. Furthermore, modern libraries ought to incorporate spaces to take coffee and water which are prohibited by traditional library settings [Librarian 1, June 2022].

Similar views were held by Librarian 2 who emphasised the need to improve the ambience and comfort of the library space thus:

In my opinion, academic libraries need to enhance access to ample spacing, comfortable reading desks and chairs, and ample sitting area. Library users also need spaces for private study, group discussion and more intensive learning. In my experience, I have also noted that post- graduate students need specialised spaces where they can conduct research more intensely. In the 21st Century, all library spaces need to have a reliable

Wi-Fi connection to facilitate effective information seeking and use from digital platform [Librarian 2, June 2022].

As libraries seek to meet the changing needs of their communities, the interviewed librarians asserted that not all spaces are suited for all users. Therefore, specific libraries need to customise their space offerings to the needs of their users:

Creating different spaces for different users is important. Whereas some users appreciate periodicals and Africana sections, others would prefer digital hubs. Similarly, whilst some make use of private study rooms, others appreciate discussion rooms. The level of study also influences space and facility preferences. Thus, post-graduate students value discussion spaces where they can consult with the faculty as well as with each other. I have also noted that libraries are no longer used traditionally for reading or borrowing books. Users now seek recreational spaces in the library. Thus, they appreciate lounge and café areas for snacks, coffee, soda and light meals. Of course, the provision of these spaces requires liberal library use policies which would allow users to bring drinks and snacks to the library. Given that academic library users come from diverse academic backgrounds, there is need for specialised spaces which are customised for specific disciplines. For instance, libraries can have spaces for arts and music students which could include sound-proof rooms and performance areas [Librarian 3, June 2022].

Based on the librarians' interviews, there is a mounting pressure from library users to have more usable and efficient library spaces that are attractive to the users in various ways, for instance, flexible teaching, learning and research spaces. The respondents were optimistic that once library spaces are appropriately reconfigured, they could appeal to more users, support teaching and learning better and result in the efficient utilisation of the available spaces.

B. Usage of Available Spaces in the Library

In determining academic staff and students' usage of library spaces, the study investigated the academic staff and students' frequency of use of library spaces and the duration of time they spent in the library.

C. Frequency of Use of the Library Spaces

The frequency of scale was measured on a five scale that included Daily, Once a week, Once a Month, Once a year and Never. The results are tabulated in the subsequent Fig. 1 and Table III for academic staff and students respectively.

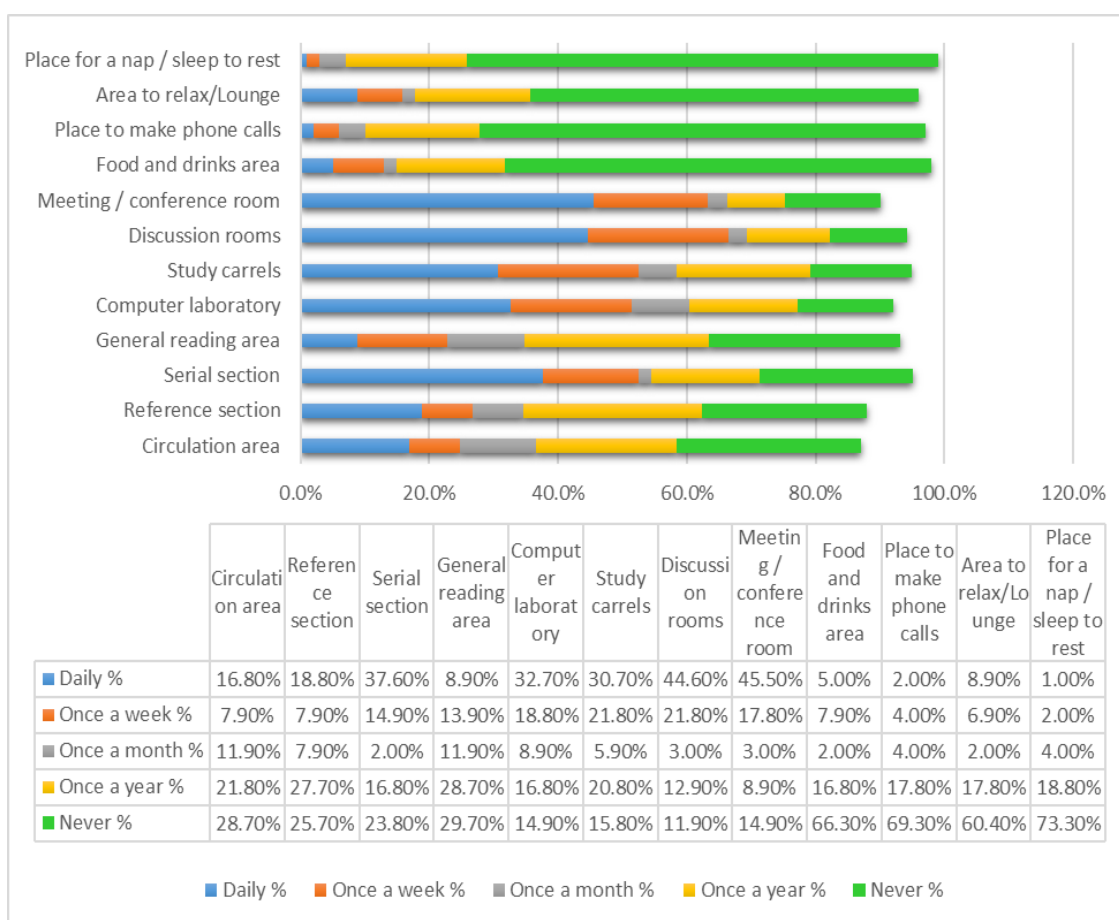|	Circulati on area	Referen ce section	Serial section	General reading area	Comput er laborat ory	Study carrels	Discussi on rooms	Meetin g / confere nce room	Food and drinks area	Place to make phone calls	Area to relax/Lo unge	Place for a nap / sleep to rest
Daily %	16.80%	18.80%	37.60%	8.90%	32.70%	30.70%	44.60%	45.50%	5.00%	2.00%	8.90%	1.00%
Once a week %	7.90%	7.90%	14.90%	13.90%	18.80%	21.80%	21.80%	17.80%	7.90%	4.00%	6.90%	2.00%
Once a month %	11.90%	7.90%	2.00%	11.90%	8.90%	5.90%	3.00%	3.00%	2.00%	4.00%	2.00%	4.00%
Once a year %	21.80%	27.70%	16.80%	28.70%	16.80%	20.80%	12.90%	8.90%	16.80%	17.80%	17.80%	18.80%
Never %	28.70%	25.70%	23.80%	29.70%	14.90%	15.80%	11.90%	14.90%	66.30%	69.30%	60.40%	73.30%

Fig. 1. Frequency of use of available library spaces by academic staff (N=1288).

According to the results presented in Fig. 1, meeting/conference room, discussion rooms, serial section and computer laboratory were the four, in ascending order, most frequently used library spaces by the academic staff. Library spaces that the majority of the academic staff reported as never having used, in ascending order, were Places for nap, sleep and rest, Food and drink areas, Place to make phone calls and Relax/lounge areas were places least used while those that majority (@ 11%) reported as only having used once a month were circulation area and general reading area. Notable also are the percentage of academic staff who did not use the reference section and serial section at all (25.7% and 23.8% respectively). Overall, drawing from Fig. 1, the cumulative academic staff that reported never using the library spaces (365.1%) were more than those that reported as having used the library spaces daily (252.5%) albeit different use patterns of specific library spaces.

The study also investigated the frequency students are using the available spaces in the library and the results are presented in Table III.

The results show that six library spaces were not used by ≥ 50% of the students. In ascending order, these were Places for nap, sleep or rest, Areas for eating and drinking, Places to make phone calls, Relax/Lounge Areas, Meeting/Conference areas, and Discussion rooms. On the contrary, Library spaces that were used by ≥ 50% of the students on daily basis were four. In ascending order, these were Study areas, Serial section, circulation area, and General reading area. On the whole, the cumulative percentage of students who never used the library spaces were more (474%) than those that used the spaces on a daily basis (373.6%) albeit different library space usage. Cumulatively, very few students used the library spaces once a year (29.1%).

TABLE III: FREQUENCY OF USE OF AVAILABLE LIBRARY SPACES BY STUDENTS (N=1467)

How often do you use the available spaces	Daily (%)	Once a week (%)	Once a month (%)	Once a year (%)	Never (%)
Circulation area	51.7	23.8	15.2	3.6	5.7
Reference section	44.0	26.9	19.1	4.6	5.4
Serial section	59.6	17.8	14.1%	2.4	6.0
General reading area	51.5	27.5	14.6%	2.9	3.4
Computer laboratory	47.7	24.6	15.2	3.6	9.0
Study carrels	60.4	17.2	11.5	2.3	8.7
Discussion rooms	7.9	20.9	13.2	2.2	55.8
Meeting / conference room	10.2	9.6	11.2	2.5	66.4
Food and drinks area	9.7	4.5	4.6	1.1	80.1
Place to make phone calls	9.9	5.5	4.1	1.1	79.4
Area to relax/Lounge	9.4	7.3	7.8	1.5	74.0
Place for a nap / sleep to rest	11.6	3.3	3.7	1.3	80.1

The reasons for disparities in the frequency of use of the library services could indirectly be linked to the frequency of use of the library.

VI. DISCUSSION

The first objective was to assess the types of spaces available in Kenyan universities. Among the available library spaces, results indicate that seven were common in all the six university libraries (circulation area, reference section, serial section, general reading area, computer laboratory, study carrels and discussion rooms). Meeting /conference room and space for food and drinks was available in five libraries with only one library missing out the two library spaces. Two of the listed library spaces were unavailable in all the six libraries (place to make phone calls and place for a nap/sleep). These results imply that there are no major differences in available library spaces among the university libraries in Kenya. In addition, the results appear to affirm Ateka *et al.* (2023) results that university libraries in Kenya continue to offer services that are to some extent traditional.

Ranking by preference of the available spaces by academic staff and students indicated reference section ranked as top priority among academic staff whereas general reading area emerged top with the students. This implies that different library users have varied needs and that it is important for the libraries to create different spaces for different categories of users. Mathews and Soistmann (2016) put it that the better we understand the people using our buildings, the better positioned we are to provide them with relevant collections and services. The librarians held a similar opinion that not all library spaces are suitable for all users. However, Teleha *et al.* (2017) caution that it is a challenge to provide all suitable library spaces required by different users.

On the frequency of use of the available spaces, the respondents were asked to choose one option from a set of statements that best describe their behaviour. On daily usage of library spaces, academic staff registered higher percentage in meeting rooms (45.5%), discussion rooms (44.6%) followed by serials section (37.6%), computer laboratory (32.7) and study carrels (30.7%). With the students, higher percentages were registered for study carrels (60.4%), serials section (59.6%), circulation section (51.7%),

general reading area (51.5%) and computer laboratory (47.7). The results signify that visits to the library space on daily basis for the academic staff are inclined to the meeting and discussion spaces where they can consult and discuss amongst themselves or with the students.

Students especially the post-graduates use the study carrels for their individual studies and research and could also be attracted to the serials section due to the availability of the newspapers. The academic staff may have access to the newspapers in their offices. The library spaces that recorded higher percentage as never visited were similar for the two user groups except with the meeting rooms. For academic staff, there were spaces to take foods and drinks (66.3%), place to make phone calls (69.3%), meeting rooms (66.4%), place to make phone calls (79.4%), area to relax (74%) and a place to take a nap (80.1%). The spaces indicated as never visited could imply that they were not available in the libraries. For instance, place to make phone calls and a place to take a nap.

However, the visits to the library could be explained by the existence of virtual libraries that are accessible without necessarily visiting the physical library space. Today, both students and faculty members use the library structure for social gatherings and for its internet and information technologies, but they also 'visit' the libraries remotely from their office or home (Baglier & Caswell, 2016; Hamilton, 2009; Khoo *et al.*, 2016).

Gyau *et al.* (2021) argue that library user' usage patterns, essentially determine the effectiveness and efficiency of university library services. Usage patterns usually indicate users' behaviour towards the library and determining the level of satisfaction achieved.

VII. CONCLUSION

This paper concludes that university libraries ought to conduct continuous assessments of the physical library spaces that they offer. The continuous assessment helps in understanding the library users' needs and preference in relation to the physical library environments. Consequently, it is easier to identify the areas of strengths and weaknesses thus making informed decisions on university libraries space improvement or enhancement. Catering for the library users' needs, the different learning settings and space types ought to be the major focus of such assessments. In order to achieve this, university libraries need to carry out continuous evaluation of their users' pattern of library space use, learning and teaching needs as well as review of policies to suit the existing situations. Librarians also need to be aware of their users' library space needs and the means to effectively address them.

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