

Acquisition Of Pedagogical Competencies By Librarians In Academic Libraries In Cameroon: Perceptions And Needs : Case Study.

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Abstract

The development of information and communication technologies is the cause of constant change in the librarian profession at the university in particular. Indeed, it is the best environment for research. Professionals adapt to the user-generated new needs as information mediators. It is in this sense that the continuing professional development of academic librarians at the University of Yaoundé I lies at the heart of this undertaking. Its implementation requires a regular needs assessment. The study highlights the pedagogical skills needs of the academic librarians. It identifies their strengths as to their qualifications to pass on knowledge about information research to target audiences, and develop skills within the library services. A grid of pedagogical skills needs was submitted to librarians who were able to express their needs. This resulted in interviews with library officials and academic libraries. The results of the study show great awareness of their pedagogical mission. Important initiatives have been taken in this area, but they need to be formalized, using appropriate tools for a greater efficiency. Suggestions are made in order to increase the visibility of academic libraries of the University of Yaoundé I among the faculties or institutions by bringing diverse actors together.

Keywords : Academic librarians -Cameroon-University of Yaoundé I-Pedagogical competencies-Skills-Needs-Information literacy-User education.

Introduction

The management of human resources has several components. Among the most important ones is the continuous training of personnel. Indeed, it is important that the staff be kept up to date with the evolution of knowledge and techniques that ensure the efficiency of the institution, which is in this context, the satisfaction of users

In 2018/2019 [1], Cameroon had 230 private universities, eight State universities and one inter-state university. Each one has a library. The selected application field of the study is the University of Yaoundé I, which is a State university. This institution has been chosen because the academic librarians of this institution often benefit from a long experience in information mediation. Collaboration with the teaching staff in this context can help to identify the needs applicable to a wider environment. It is also a way to explore possibilities to organize training courses on a more regular basis by providing a platform of reflection.

The academic libraries of the University of Yaoundé I supports the missions of the University. The latter is an essential support for development. As a matter of fact [2] , section 3 of Decree No 027 of 1993, reinforced by the orientation law of 19 January 2001 on universities in Cameroon, states that universities are responsible for training, scientific and technical research, support for development, social promotion, and the promotion of science, culture and national consciousness. Their action therefore concerns both the individuals and society. The success of this undertaking rests on the intellectual and professional capacity of the academic librarians to meet the needs of the users whom they are responsible for initiating and training in information culture.

The academic librarian is a mediator between the user and the information. This assertion leads to raise, particularly in the context of continuing professional development, the problem of the acquisition of

knowledge and pedagogical skills of the librarians of the academic libraries at the University of Yaoundé I. More specifically, it is necessary to know their needs in terms of continuing training in this area, and how they perceive their mission as educators. Continuing professional development (CPD) is a mean of regularly raising librarians awareness on what is expected from them in the field of teaching skills. They acquire knowledge by building up relevant physical and digital collections, and transmit it in various ways, so that knowledge and skills are renewed.

Generally in Africa [3], staff training is not programmed regularly. The academic libraries at the University of Yaoundé I are also operating in the same context. The scarcity of training in developing countries weakens the productivity and efficiency of libraries. It is therefore useful to think about means and strategies to increase the number and quality of training courses in a country with enormous potential and human achievements in librarianship. This study aims to show the importance of continuing education for librarians for an efficient transmission of knowledge, both internally and towards users.

The above remarks raise some questions that need to be answered: What are the qualifications and characteristics of the library staff of the University of Yaoundé I? Do they correspond to those required in the university environment? As the main focus of our study is the acquisition of pedagogical skills in a digital environment for successful mediation, it is worth asking whether the librarians have any expectations in terms of continuing professional development in this area and what their needs are. In other words, what are the modules that would enable them to develop know-how within the context of staff training and user education for the acquisition and mastery of an information culture? How do the librarians perceive their mission as educators? What are the obstacles to the implementation of such training and how can they be removed? Finally, this study aims to propose the means and strategies to be implemented in order to develop continuing education in the university environment.

Those remarks lead us to the following hypotheses:

- The academic librarian initial competencies and occupational experience are assets for mediation.
- As educators, academic librarians are aware of their mission but the library's initiatives in the field of learning in faculties and libraries are not enough.
- The lack of a regular assessment of pedagogical skill training needs impedes better integration of the academic librarians within faculties.
- The shortage for training somewhat hides the visibility of the academic librarians' contribution to the success of the university missions.

The approach adopted for this study is divided into four main sections: a review of the literature on the role and importance of pedagogical competencies and skills in academic libraries is followed by the methodology of the study. A section highlights the outcomes of the survey on how the pedagogical competencies and skills are perceived by librarians and their needs in that domain. Each sub-section focuses on a specific group of modules. After this analysis, a discussion makes the highlights that emerge from the expressed needs. Furthermore, the challenges faced by academic libraries of the University of Yaoundé I are raised up and some suggestions on the ways and means to solve them are presented. The conclusion highlights the main results and opens access to further researches.

I- Literature Review

The literature review focuses on three essential points: the role of the academic librarian as a pedagogue, the role and importance of Continuing Professional Development (CPD) in academic libraries, and the conditions for the success of the librarian's educational role.

Academic librarians as pedagogues

The increasing involvement of librarians in information literacy education over the past few decades has further emphasised their mission as pedagogues. Pedagogy can be defined as the practice, occupation, art of teaching or the science of teaching. [4] Developing this reflection further, they assert that pedagogy is synonymous with "disciplinary integrity", "expertise", "freedom, self-motivated learning, joy of discovery", "Generic skills efficiency", "enhanced reference service." Indeed, it is about training users in the acquisition of information literacy, and accompanying them in their search for relevant information that meets their

needs. This implies intellectual honesty. Achieving the desired objective leads to the satisfaction of users. The latter will progressively acquire expertise in information literacy defined as [5] “The set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced, valued and the use of information in creating new knowledge and participating ethically in communities learning”.

The continuing professional development (CPD) of academic librarians is essential to perform this work. Just as teachers are called upon to train regularly, so are academic librarians expected to regularly update their knowledge of the most effective research methods, or research tools appropriate to each situation. Laura Krier asserts that the librarians [6] “adopt a more active educational role in higher education” .This status confers upon them the position of privileged partners of faculty or institution lecturers. This raises the issue of the nature of the quality of their relationships with academic institution lecturers.

The requirement is to develop the pedagogical reflex that makes it possible to establish a solid relationship not only with one's team, but also with the faculty teachers so as to be able to communicate relevant information more easily. It is in this sense that Lorette Jacobs [7] writes: "the embedded librarian is: a person who has established strong relations with other team members to build true teamwork. An embedded librarian is a knowledge guru, working strategically and in an integrated manner with academic faculties to offer access to information". The proximity between librarians and students can only be enhanced if the latter feel guided and supported in their research.

The role and importance of continuing professional development

In its guidelines on CPD [8], IFLA attests that “The librarian is an active intermediary between users and resources. Professional and continuing education of librarian is indispensable to ensure adequate services”. [9] It appears that this study is in line with the definition of CPD given and specified by Kaija Collin, Beatrice van der Heijden and Paul Lewis in the conclusion of a study. They argue that although this notion is multifaceted, it can take different formulas from one institution to another. It implies in all cases a "formal training and education taking place at work and located in the promotion of professional expertise".

It is a process that allows the academic librarians to fill the gap between formal education and daily professional needs. About this [10], Moonasar and Underwood write: “it is about ensuring that individuals have the opportunity to keep up-to-date with trends and to continuously learn and improve their subject and professional knowledge”. The success of the mission of the university, which consists in providing a good education to students and relevant information to teachers and researchers, depends on the quality of the librarians at its disposal.

IFLA further attests that [8]: “The quality and effectiveness of library and information services depend on the expertise of staff”. [11-12] However, in several African countries such as Ghana and Cameroon, to name a few, the planned organisation of training seminars in academic libraries is still rare in State universities. This situation is due not only to the lack of initiative and will, but also to the lack of funding. None of the State universities in Cameroon does annual systematic programming of CPD. Nevertheless, the training of colleagues within the services is done when new staff are recruited or after a seminar or a conference attended by one of the members of a library department.

In Cameroon, the initial training in the university generally corresponds to a degree course. This training equips individuals with the necessary knowledge and skills to enable them to enter the workforce. Those who do not have an initial education in library science acquire it on the job and sometimes through continuing professional development. Other graduates are holders of a baccalaureate or a lower certificate. Some academic libraries provide on-the-job training even to the Baccalaureate holder staff in areas such as the basic principles of cataloguing or filing.

Professionals often leave state libraries which for the most part do not have a specific administrative status. They prefer companies presenting a career development plan. Only the University Buéa of and Bamenda's central main libraries have a management status. [13] Rosemary M. Shafack writes about this sector which often encounters such situations : “The government needs therefore to provide a status for this sector” which is “a suitable development tool” .

Given that knowledge and skills change rapidly over time, it is important to regularly share knowledge through training. Indeed, collective excellence is the sum of individual performances. It is in this sense that ACRL attests [14]: "Academic and research librarians have a responsibility to share what they have learned through writing, speaking, mentoring, or modelling, in order to facilitate the learning of their colleagues and the advancement of profession". The planning of trainings is a prerequisite for mission success.

Continuing professional development can take the form of lecturing or teaching, mentoring, presentations or conferences, development of knowledge and skills in offices, etc.. Academic librarians who have the opportunity to regularly update their knowledge have a greater sense of their social value and usefulness. In this sense, [15] Otsonu et al. state: "How well staff is developed determine what he can offer, this implies that once a staff feels appreciated and challenged through training opportunities he feels satisfied towards his job and performs better". Those libraries will thus be in step with the evolution of scientific research in their capacity as information providers. [16] It is all about preparing, in academic libraries, a workforce in what is commonly designed a "VUCA" (Volatility Uncertainty Complexity and Ambiguity) world.

Conditions for the success of the librarian's educational role.

For effective action, training should be planned throughout the academic year for each individual and for all librarians. [8] A deadline and an approximate number of hours dedicated to CPD should be estimated ahead of time.

Academic libraries need to consider several elements [5] : the educational context and needs of the community involved; the involvement of the institutional community and the expected outcomes; the consideration of training levels, attitudes and learning styles; and the possibility for users to implement the knowledge and practices acquired even outside the training institution. [17] More specifically, the ACRL Framework on Information literacy on higher education provides guidance on how to implement its content for the acquisition and transfer of information literacy. For example:

-Organise exchanges on campuses on how to introduce these courses into the training curricula of the students. The aim is to support them in the training.

-Promote collaboration and partnerships between the different actors: librarians, teachers, educational designers, etc.

-Encourage the production of textbooks, electronic or online materials for the various pedagogical needs.

The academic librarian should take into account that [17]: "information possesses several dimensions of value, including as a commodity, as a means of education, as a means to influence, and as a means of negotiating, and understanding the world. Legal and socioeconomic interests influence information production and dissemination". All the above implies a good command of the following areas: oral and written communication skills; knowledge of the digital, legislative and institutional environment; information literacy, which to be implemented effectively in an academic context requires close collaboration between librarians and the teaching staff. The success of this undertaking is based on the production or availability of teaching materials. Laura Bewick and Sheila Corall [19] add that putting pedagogical principles into practice means "applying design and facilitation strategies that fit the needs and circumstances of specific context". The areas of intervention of librarians include not only the traditional practice of collection management, but also the intervention with new online supports, which can be consulted through Information and Communication Technologies. [3] Jain and Akakandelwa note that the challenges facing African academic libraries in this area are numerous.

As a result of the digitisation of knowledge in contemporary societies, librarians are faced with rapid changes due to the use of information technology. [19] User behaviour in the field of learning is changing, as well as the social aspects to be taken into account. These phenomena generate major challenges in terms of knowledge and know-how. The need for continuous training that keeps librarians in tune with the technological, scientific and social evolution of their environment emerges here.

The new profile of academic librarians is now that of professionals integrated into the university community, of strategists. [16 & 20] They are an essential part of a team that they form with colleagues and the

academic community. As reflected in some studies (top trends 2018 and 2020), academic libraries are the managers of educational resources and, as such, they increasingly produce data that allow the parent institution to measure factors of academic success. This is another reason for greater openness to the analysis of scientific data and better collaboration with faculties.

Faced with all the challenges mentioned so far [3], Priti Jain and Akakandelwa had identified a dozen of roles that African academic librarians have to assume. These range from the production of curricula to research support, marketing and the inevitable mastery of Information and Communication Technologies. From their analyses, it appears that the pedagogical and training skills to be developed in a digital environment in Africa must lead the librarians to become, among others, “Knowledge managers and knowledge workers; Instructional partners in learning spaces”. Managerial and entrepreneurial skills are required. The main difficulty for African academic libraries in meeting these challenges is related to inadequate budgets.

The various aspects so far identified show that the academic library is therefore a space which is both physical and virtual. In an ever-changing digital environment, the mastery of the modes and tools of communication adapted to this context is necessary in order to ensure user education and instruction as well as to search for and communicate information.

II- Methodology of the Study

This study aims to examine the training needs of the librarians of the University of Yaoundé I, with regard to the acquisition of pedagogical competencies, the perception they have of their mission as educators, and the conditions required to implement these competencies both professionally and institutionally. More specifically, this research examines their qualifications, the situation of the continuing professional development as well as the tools and means of action made available to them by the university.

The survey was carried out from May 2019 to October 2020, with six months of disruption due to restrictions related to the Covid-19 pandemic. Three methods have been used: observations, interviews and a questionnaire which contains a list of 23 training modules. These three methods are complementary. Information gathered through the questionnaire, interview and observation is incorporated into the findings and discussion depending on needs. The data used in this research are both qualitative and quantitative.

The questionnaire is segmented into three principal parts with the following contents:

1-Training: questions were asked about their initial training and training in librarianship; their level of education; the time they spent in library activities.

2—Information, relating to the position: service concerned, the mission of the respondent at this position.

3- Needs in continuing professional development, which corresponds to a list of modules. The units included are those which are necessary in education. They have, in the first place, been defined on the basis of the missions of the academic libraries. [21-23] In addition, the models proposed by Jaya Raju in a digital environment have been used. She offers a series of training modules as part of the acquisition of pedagogical competencies by academic librarians in the digital higher education environment. The units on the knowledge of organizations and the university environment have been adapted to the Cameroonian context. [24]ACRL productions on pedagogical competencies were also helpful. These module grids summarise the main aspects involved in the acquisition and implementation of skills namely: Communication skills (Public speaking, presentation skills; knowledge of the digital, legislative and institutional environment(legal issues, local regional or national institutions in librarianship.); information literacy and collaboration with academic staff (user education, reference experience..); production of teaching material (Lessons plans, creation of multimedia material, etc...).

The questionnaire was written in English and French to facilitate understanding and was tested with many librarians. The list of training proposals aimed at acquiring pedagogical skills were presented to participants who had to express their needs by checking the corresponding boxes. Every librarian was free to add verbal or written comments during or after the completion of the questionnaire. Specific and additional explanations have been provided to the librarians where necessary during the survey. The latter was jointly

piloted with library managers. Personal attributes of the librarians have not been taken into account. They can be part of another study.

Interviews have been conducted with the academic librarians of each service in particular, to have clear explanations on their needs, perceptions and the vision of their contribution as educators to the success of the mission of the University of Yaoundé I. The questions contained in the interview deal with the following aspects: The perception they have of their mission as educators; their opinion on the periodicity of trainings; their relations with teachers and faculties; their opinion on the importance of training the users; the obstacles to the accomplishment of their mission as educators; as well as their suggestions of how to eradicate these obstacles (See appendix II).

The observation focused on whether or not computers were available, as well as on the possibility for both professionals and users to connect to the Internet in the spaces reserved for them. These are basic conditions that must be met in an international digital environment for an adequate training of users in information literacy. The aim is to achieve the empowerment and satisfaction of users.

The libraries of the University of Yaoundé I form a centralized network. There is a central library responsible for the supervision of the institutions' libraries. The body which coordinates the activities is chaired by the Director of the library and is responsible for activity planning and capacity building. The library organization integrates the following departments: The Department of Administrative Resources, the Department of Acquired Documentary Resources, the Department of Factual Documentary Resources, and the Department of Information and Technology Resources.

The library network of the University of Yaoundé I includes the following libraries:

-The Central University Library, also known as the Main Library, and 5 libraries of the schools and faculties under the authority of the Central University Library of the University. Almost all of them are located in Yaoundé.

-The Faculty of Medicine and Bio-medical Sciences (FMBS);

-The Higher Teacher Training College (HTTC); which trains teachers of general education for secondary and high schools.

-The National Advanced School of Engineering (NASEY) trains engineers.

- The Faculty of Arts Letters and Social Sciences (FALSH).

-The Higher Technical Teacher's Training of Technical Education (HTTTC) of Ebolowa, which trains teachers for secondary schools.

A total of 31 persons are working in the university libraries of the University of Yaoundé I.(statistics 2019/2020).Among these personnel, there are 5 persons with a level below the baccalaureate who are not included in the survey. They are in charge of bookbinding or monitoring reading areas. There are also 7 baccalaureate holders. Two of them have the status of trainees in short-term jobs and did not draw our attention.

The other 19 members of the staff hold at least a bachelor's degree. The questionnaire only concerned this category, which has university degrees enabling them to assume teaching responsibilities. However, general information is given on the staff with a baccalaureate level.

III- Results: Study Context and Collected Data Analysis

III-1-Features of the academic librarians of the University of Yaoundé I

The academic librarians of the University of Yaoundé I are holders of one of the following diplomas: baccalaureate or GCE Advanced Level; bachelor's degree or above. Those at the baccalaureate level take care of both administrative and librarian tasks as needed, such as reception and orientation of users and registration of documents for those who have a long experience in the library. The experience in library varies from 1 to 15 years for the baccalaureate and the bachelor's degree holders. Several librarians have

followed continuous training courses organized for them by the library. The holders of the baccalaureate wish, where possible, to follow university training in Library and Information Sciences. Training related to reception, interpersonal communication and general knowledge on the sectors where university institutions intervene in Cameroon may be useful to this staff. Computer knowledge related to their respective missions is unavoidable.

The table below shows the number and distribution of librarians with, at least, a Bachelor's degree and their professional experience.

Table I – University of Yaoundé I: Qualifications of librarians and Experience in the academic libraries.

Degree	Number Total	Initial training in library and information sciences	Continuing professional development on the site	Number of years of experience in university library
Bachelor's degree	6	2	4	Between 5 and 15 years
Master's degree or above	13	4	9	10 to 25 years
Totals	19	6	13	-

Professionals who are holders of a Master's degree are generally department, section or service heads. The section head is in charge of one of the annexes of the university central library. The majority of the staff has no initial training in library sciences. They benefitted from several continuous professional training and on-the-job training, taking into account the position they held. They are trained in disciplines such as history, mathematics, letters, law, etc.. This constitutes a clear advantage as regards the skills related to the mastery of the various fields of research in the library and working tools. Such fields include humanities, pure sciences and economic education. They hold administrative or technical positions, depending on their assignments.

The policy of the University central library of the University of Yaoundé I (BUCYI), however, is to put its entire staff on library sciences training. A long experience in library often confers them the ability to accomplish technical tasks, such as cataloguing or activities related to literature research and mediation. The trained professionals include one person with a Master degree in documentation and an archivist. The recruitment of the latter corresponds to a specific need for acquisition and processing of information, and archiving.

III-2- Needs for Training Expressed by Academic Librarians

Two approaches have been adopted to present the choices of the librarians. There is first a major theme. Secondly, this theme involves accompanying training modules. The following major themes are concerned: Generic written and oral communication skills; knowledge of the digital legislative and institutional environment; information literacy and collaboration with the academic staff; Production of teaching material.

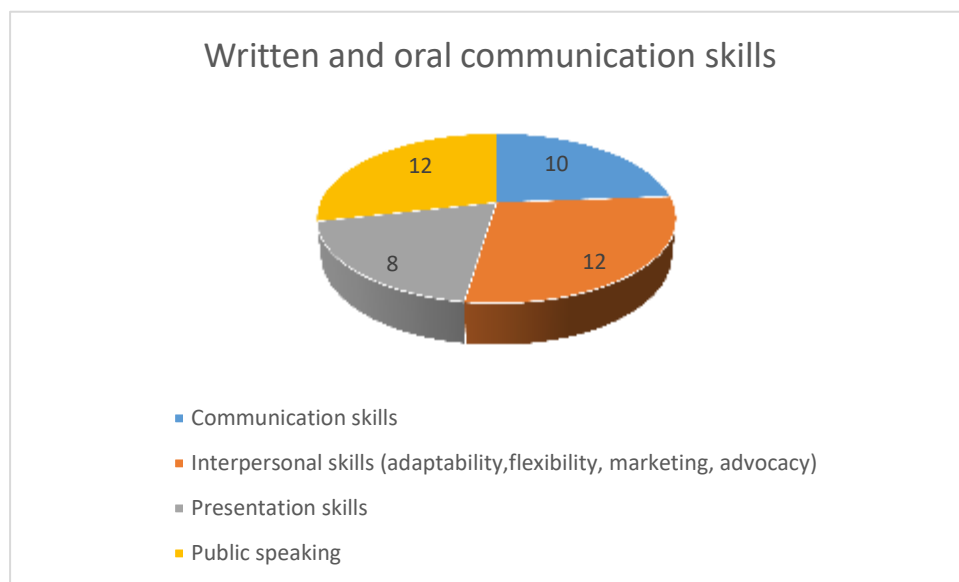
The content of the results below comes from the use of questionnaires and interviews conducted with librarians. The number of librarians who chose units in each module group is shown. Each section is accompanied by a graphic.

III-2-1- Generic written and oral communication skills

Teaching is communicating. Indeed, pedagogy and communication are two closely related fields. Many staff members are aware that if they have not the required skills in these areas, it will be difficult for them to transfer knowledge and techniques. The training modules proposed here are related to communication skills such as presentation skills, public speaking, and interpersonal skills. There is a predominant need for better interpersonal communication between libraries and librarians.

The librarians who are interested in any of these modules are 17. They assert that they recognize the need to renew their knowledge and therefore their practices in these areas, because they will use them on a daily basis. The staff that is interested in these options, belong to all categories, taking into account their responsibilities. These include relations with other institutions and co-operation; responsibility related to a sector of the library such as development of collections, acquisition and processing of periodicals, administration and management of databases; responsibility for a factual resource department; information processing; promotion of theses and dissertations.

FIGURE I



III-2-2- Knowledge of the Digital, legislative and institutional Environment.

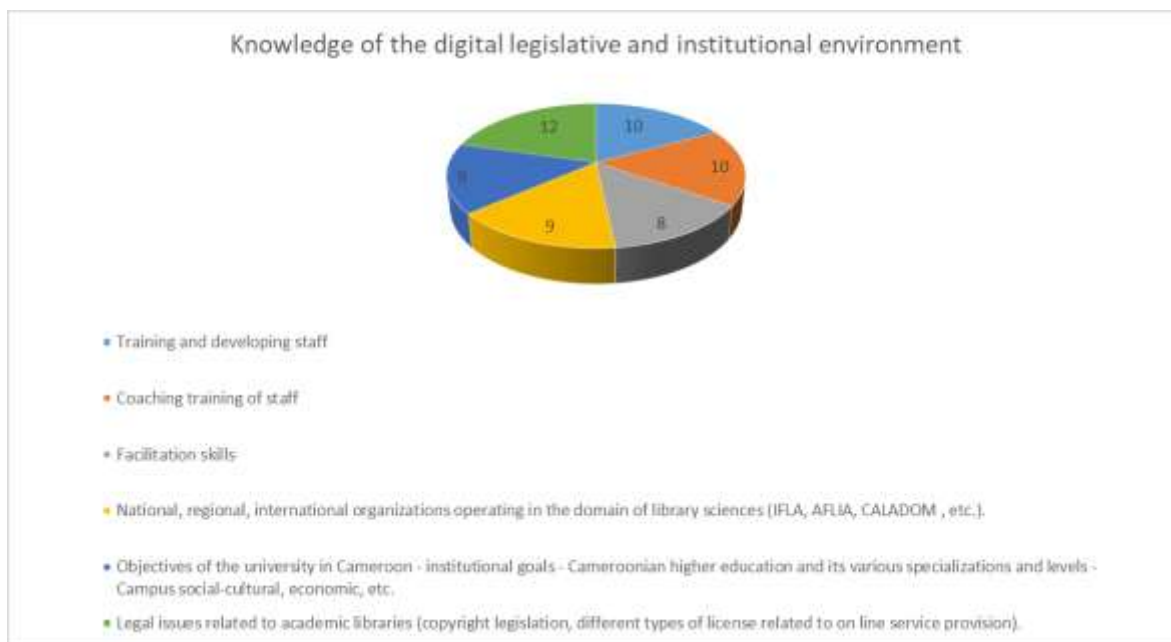
This section includes the modules related to the coaching and training of the staff; facilitator skills; legal issues related to academic libraries like the copyright legislation; the different kinds of license and the legislation which can be negotiated for their usage. There is also a proposal for a regular update of existing knowledge on the Cameroonian higher education landscape and organizations in the domain of library and information science.

There are 17 librarians who are also interested in one or the other module in this group. Librarians who provide high-level management tasks such as the responsibility of a service or the management of a library are very interested in Legal aspects related to the communication of information in a digital environment. They indeed focus on the fact that this field is changing rapidly and, from time to time, they call attention to new issues.

In addition, better knowledge and participation in the activities of both national or international organizations such as IFLA (International Federation of Library Associations and Institutions), AFLIA (African Library and Information Associations and Institutions), and ABADCAM/CALADOM (Cameroonian Association of Librarians, Archivists, Documentalists and Museographers) is also requested. Being in touch with colleagues at national and international levels is seen as a mean for sharing experience with colleagues of the same sector.

The librarians assert that a good knowledge of specializations and different levels of training of the higher education institutions in Cameroon will allow them to be more effective in the era of mediation. They can easily direct the users to other information sources.

FIGURE II



III-2-3- Information Literacy and Collaboration with the Academic Staff

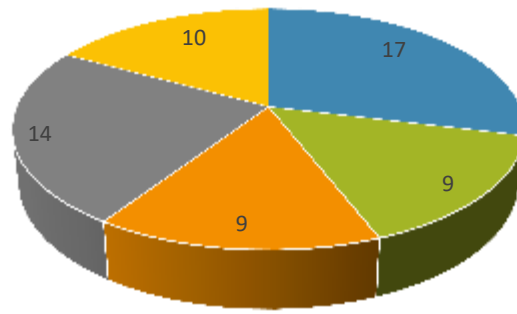
All librarians recognize that the academic librarians are pedagogues, and that their knowledge should be regularly updated. The selected modules concern user education and instruction, user's interface design skills, reference experience. These are very important points of contact and a sensitive domain. This explains that 18 librarians have checked modules in this section. In fact, the module on users training and library mediation arouses great interest. These units constitute an important part in an institution where professionals are increasingly used in the context of individualized service provision. The literature on information literacy and the technics in these domains are often renewed. It is all about knowing how to put in place or lead actions in order to train and to satisfy the users. Close contact with academic staff making up a user group can promote aspects such as advocacy for elaborating formal texts which will define the terms and the ways of collaborating with the faculties.

Librarians are expected to provide teaching on research related to different disciplines. The training and demonstration sessions must be done using electronic resources. They include internet research and the evaluation of the digital resources that are collected. Some students may choose this training as an option with credits that will count as part of their course, if the University accepts the proposal.

Information retrieval is at the heart of knowledge management. Librarians should master this area for better efficiency in mediation. User satisfaction is based on the renewal of knowledge on collection development and digital preservation.

FIGURE III

Information literacy and collaboration with the academic staff



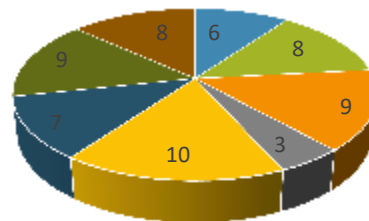
- User education and instruction
- Information literacy instruction
- Collaborate with academic staff
- Reference experience
- User Interface design skills

III-2-4- Production of Teaching Material

User education and instruction implies the ability to manage a training programme. This equally leads to the development of training materials that are, in this case, adapted to a digital environment. Academic libraries need to develop competencies and skills in this area. Therefore, there are modules in this theme such as the management of a programme and a classroom, the development of a teaching content, production and facilitation of online courses. There are 13 librarians are involved here. It is the group which has modules that collect the less choice.

FIGURE IV

Production of teaching material



- Classroom anagement
- Online courseware skills
- Creating multimedia instructional material
- Instructional related experience
- Pedagogical knowledge and competency
- Instructional design
- Lessons/Teaching methods / Learning theories / Learning styles /
- Programm management

All of the findings presented above call for a number of specific remarks.

IV- Discussion

IV-1- A Transversal analysis of the responses given by librarians

Implementing teaching skills involves the relationship with the other. In the university library, the latter is the user who falls into several categories namely students, academic members staff, and external audiences. Within the library, collaborators are introduced to the execution of specific tasks. It is therefore a matter of training, instructing, guiding or exchanging as the case may be. Interviews with librarians show that the common denominator for all these postures can be summarized in 'convince'. In fact, the satisfaction of users is acquired when they obtain information they need at the right time to further their research. Such is the mission entrusted to academic libraries. To achieve their goal, they should rely on a good knowledge of the academic environment, and an appropriate documentation offer to meet the user's needs, as well as technological tools that are now essential. The librarian described by the personnel appears like a teacher but also a coordinator, a lifelong learner, an instructional designer, a leader and a teaching partner [24]. All librarians say that regular attendance at seminars on these topics helps them to constantly keep in mind their mission in this area and to improve their teaching skills.

To this end, the areas of knowledge, which most need to be updated according to the choices expressed by librarians, are contained in the table below. Those that engaged more than 50 % of librarians are modules presented in the table below.

Table II- The most solicited modules.

Nature of the skill	Number of occurrences	Percentages
Pedagogical knowledge and competency	10	52.36%
Communication skills	10	52.36 %
Training teaching and developing staff	10	52.36 %
User interface design skills	10	52.63 %
Public speaking	12	57.89 %
Interpersonal skills	12	63.15 %
Legal issues	12	63.15 %
Reference experience	14	73.68 %
User education and instruction	17	89.47 %

In general, there is no major imbalance between groups of modules with regard to the number of librarians interested. This fluctuates between 13 and 18 persons. Consequently, There is a definite interest on the part of the academic librarians to train users and pass on knowledge, including in-house training. Service managers often do so towards their collaborators, especially since many have neither initial training, nor prior professional experience in this field when they are recruited.

Training for network librarians is organised by the library officials depending on the overall needs detected. Librarians fully subscribe to the idea of a more regular organization of trainings that also facilitate exchanges. This is how 12 librarians also have asked spontaneously for a reflection on the implementation of an exchange platform between the librarians of the whole network for more concerted actions towards the users' instruction before the question was asked to them.

Some modules in the context of the production of teaching materials have been very little requested, such as classroom management or instruction related experience (fig 4). Analysis of the explanations given by the librarians show that they feel that while these skills are important, they will be especially useful in a context where there is already an advanced collaboration with the faculties and intervention at the level of the classrooms. And this, in their opinion, will not be the case in a very near future. This is not a reality for many of them yet. Consequently, it is a matter of urgency to produce and use these competences and skills on a daily basis in practical cases. This will allow them to better measure their importance in academic libraries. The librarians who have shown interest in this group of modules are mainly those who are involved

in the training of librarians in network libraries nationally or internationally, and at the university. They are more used to make use of these skills which they have acquired elsewhere.

Those who assume high level tasks also say the accent should also be put on collection development activities because this is a very important element, to provide satisfaction to users. At the same time, this raises the problem of insufficient budgets.

There is no significant difference in view of findings between service membership and expressed needs. To ensure greater effectiveness, continuing professional development seminars must be organized regularly. Indeed, the acquisition of pedagogical skills responding to users expectations requires the renewal of knowledge and mastery of techniques. In order to reach that goal there are some obstacles that should be overcome.

IV-2-Challenges to overcome

Those challenges can be ranged in three categories: those that can and must be addressed by the university, those that can be relevant to the librarians' initiative, and finally those that require the effective participation or commitment of the two parties.

IV-2-1-The role of the University

Insufficient and inadequate tools.

This situation constitutes a major obstacle to achieving the objectives of the academic libraries of the University of Yaoundé I. Librarians of the University points out shortcomings in technological tools. It should be noted that there is insufficient coverage of Internet connection stations. Twelve of the 14 computer stations identified in the network's libraries have internet access available. However, each library is connected to internet .But no library has a space provided with computers equipped with an internet connection for users.

In the early 2000's the Cocurel consortium, which was set up from a convention signed between the International-Network for the Availability of Scientific Publications (INASP) and the University of Yaoundé I, handled all the State universities and a dozen of private universities. There were 50 computers connected to the internet in the central library [25]. This figure has dropped considerably. There is therefore a maintenance and equipment renewal issue that needs to be resolved. Otherwise, according to the professionals, its functioning could not be largely sustained due to lack of user training.

All these constraints mentioned require the acquisition and maintenance of web 2.0 tools that promote collaborative work by sharing information through texts, images and flash animations.

The necessity of a career development plan

One wonders why academic libraries recruit so few professionals graduated from training schools. The explanation lies in the fact that the libraries of the University of Yaoundé I do not offer a career development plan. They do not have the administrative status that allows them to do so. They should have a status of a Directorate within the university. Their current indefinite status leads to an erosion of trained professionals to other institutions offering more opportunities for evolution. [25] Indeed, between 1975 and 2010 Alexis Eyango Mouen notices that 50 graduated librarians left these libraries for other horizons. Therefore consideration should be given to a clear definition of the status of this structure.

There is a need to increase the number of qualified academic librarians in order to improve the supervision rate of users, particularly students. It is not possible to determine the supervision rate of users per professional in the University of Yaoundé I, since user registration is continuous, and is not done per academic year. Nevertheless, each year, the university receives about 20 000 new students who are users to be trained. [20] The ratio of students per professional is very unbalanced; the ACRL asks every university to assess its needs in this domain . If only the first level of the university is taken in account; by making the relationship between the 19 academic librarians considered in this analysis, a ratio of 1 librarian to about 1052 students is obtained, which is very low. The implementation of initiatives to bring users closer to services is an important part of this undertaking. The training needs of the staff are particularly noticeable with regard to their interest in the user training and mediation field.

The insufficient budgets

This study did not explore in depth the limits of the libraries' budget of the University of Yaoundé I, which does not always allow them to implement regularly training plans. This budget is however generally insufficient in Cameroon as in many African countries as shown by Mamadou Diarra [26]. It is not awarded according to the recommendations of UNESCO that is from 5 to 10 % of the University total budget. The academic libraries of the University of Yaoundé I have less than 1% of the general budget of the university in 2020. The total operating budget of all network libraries is 35 375 000 FCFA (66 285, 57 USD) in 2020 [27]. That is less than 1% of the total budget of the University which is 12 000 000 000 FCFA (22485564 USD) the same year. It should be noted, however, that funding for training courses related to the creation and management of databases come from another body, the Information Technology Centre (C.U.T.I). The amounts spent vary according to training needs.

IV-2-2-Challenges that must be addressed by academic libraries

Be more innovative

Librarians have a great deal of willingness to acquire these skills, despite a technological environment that is not very favorable. But they must be more innovative and creative by already exploiting all the technological opportunities of the moment, which are offered to them. It is in this context that Ronald C. Jantz [28] asserts that: "Academic environments pose unique and significant challenges with regard to identifying the need for major change, providing motivation for that need, and taking the required action to institutionalize the change". This needs the agreement of the various stakeholders of the University. It is a process that is gradually being put in place at the University of Yaoundé I. Teachers and researchers or specialists are consulted from time to time during acquisitions.

It is necessary to put a training policy in place that will enable trainings on a regular basis. It is in this vein that Leo Appleton asserts [29]: "If library managers don't invest in training and development to meet user's changing demands, they will be left with demotivated and demoralized staff who lack the competencies and confidence to do their job through no fault of their own". All the librarians interviewed expressed this feeling and danger in their comments. Cameroonian University Libraries in general and the University libraries of Yaoundé I in particular, have proven skills from some library staff trainers at national, regional, and international levels in digital environments. This is a significant asset which can be exploited. Training seminars are organized sporadically, but are not scheduled annually.

A training plan for each librarian must be drawn up over a specific period and enriched or renewed where necessary. An exchange platform can be set up in which people regularly express the needs that arise according to the intellectual and technical environment. A team should be tasked with identifying available training opportunities or skills inside or outside the library. Training offers will also be available in this virtual space. The academic librarian must now be prepared to be trained by personnel other than those from libraries for the acquisition of transversal skills. This concerns, for example, programme management or facilitator skills. The interview with the network manager Pr Marie-José Essi shows that when training is organized by an external institution on cross cutting capabilities or other useful aspects of the library, a librarian may be delegated to this seminar and shall be responsible for training the colleagues upon his or her return.

Less than half of the academic librarians in charge of information management gets an initial training in library studies. This is not enough. The training policy can provide opportunities for the acquisition of the required knowledge through initial training for those who are in need of university degrees in librarianship. The discussions with the head of the network also indicate that such requests are permitted. After studying the case, the University may take the decision to send the applicant for training for additional theoretical knowledge. Sometimes librarianship teachers are involved in the trainings organised by the network.

However, a long experience in university library and in different services, can be an asset. In addition, teaching skills also include interpersonal skills, which refer to motivation and the possibility for librarians to take initiatives in their immediate environment. These are avenues of research that will add additional elements to an action plan.

Further actions in continuing professional development

This study includes all librarians of all disciplines represented. It is certain that other additional studies will have to be carried out on the needs according to the specialization of each library of the network. [30] Thus, Kasalu and Ojiambo show, in a study carried on the university libraries working in the field of health in Kenya, that the professionals must know well the national and international institutional environment in the medical field and the organizations that produce medical information. Almost all professionals concerned in that survey wished to be introduced to the interpretation of certain medical data necessary for their skill acquisition. [31] Similarly, Anne-Marie Bertrand underlines the necessity of special trainings for library authorities.

It would also be interesting to examine students' perception of academic libraries. It is important that they perceive this structure as an institution where they can get help from librarians for their studies. They usually come to the library to review their lessons. A survey also conducted among teachers will define the means of collaboration between students and librarians.

IV-2-3-A better collaboration between all the stakeholders: the responsibility of the two parties.

Emphasis has also been placed by librarians on the creation of a solid and effective network for the increase of user satisfaction. These findings point out the need to pool resources through the creation of a network or consortia. It is for this reason that many wish to constantly have updated their knowledge of the Cameroonian university landscape to facilitate the work of mediation. This type of training is easier to organize. It will initially bring together the staff and Section Heads of these libraries. The implementation of these projects will allow professionals to practice mediation for greater satisfaction of users. For this purpose, considerable power must be granted to the person responsible of the libraries for driving innovation in a non-profit organization like the university library.

The implementation of pedagogical skills can thus encounter fewer obstacles with regard to the application of knowledge acquired in continuing professional development. It is these factors that will contribute to make the training of users more regular and systematic. The users training should be more deeply rooted in the habits of university professional librarians in Cameroon as it is in some countries in Africa. [22] It is what Jaya Raju aimed at when she said that the academic librarians in Africa found themselves more and more, and sometimes without preparation, in the place of the teachers because of the mutations generated by the rapid evolution of information and communication technologies. It is therefore necessary to systematically integrate librarian interventions in faculties early within the academic year. The newly enrolled student will thus learn how the library works, what services it offers and how it can be accessed from a technical point of view. [32] This experiment has been successfully carried out for a few years by Quebec university libraries, which intervene up to course level according to the orientation of these courses. Academic success is thereby enhanced, because it is a matter of helping students to adopt appropriate information-seeking behavior.

The interview with the network manager shows that the responsibility to train the students in faculties or institutions is vested in the librarians of these structures with the support of young teachers and doctoral training units. They have already been asked to be trained in information retrieval. But this remains to be formalised so that institutions get involved in this undertaking. Librarians want a more active participation from teachers, which will also ensure better visibility of the structure. In addition, librarians must increasingly position themselves as partners of teachers and service providers, even of individualized services to users (bibliographies, orientation to relevant sources, etc.). This is what is expected from them in the 21st century. To fully achieve this objective, the implementation of work programs and of brainstorming sessions with the faculties is necessary. The aim is that lecturers understand that it is in their interest to collaborate with the librarians.

Conclusion

This study is set out to examine the perceptions of pedagogical competencies by the academic librarians of the University of Yaoundé I and their needs in this domain. The results show that the academic librarians are aware of their mission as pedagogues. There is indeed a fairly marked interest in modules which allow a good mastery of pedagogical skills. They would like to see further training. The collaboration of all

stakeholders will ensure collective success. Seminars organized more regularly. The number of academic librarians trained in specialized establishments must be increased to allow more effective mediation. However, a number of difficulties have to be overcome both by academic libraries and the University of Yaoundé I to more easily achieve the common objectives assigned to them. The ability to adapt to a constantly changing technological environment facilitates the achievement of the University's objectives. Reflection on the implementation of a common policy in the field of CPD and information literacy in State academic libraries is essential for concerted and effective action.

References

1. Cameroon-tribune, "Données statistiques sur l'enseignement supérieur", September 2018, <https://www.cameroon-tribune.cm/article.html/20410/fr.html/donnees-statistiques-sur-lenseignement-superieur>.
2. Ministry of Higher Education (MINESUP), Enseignement Supérieur au Cameroun, 2000. <https://camer-univ.blogspot.com/2008/05/enseignement-suprieur-au-cameroun.html>.
3. P. Jain, and Akakandelwa Akakandelwa "Challenges of twenty-first century academic libraries in Africa". *African Journal of Library Archives and Information Sciences*, vol.26, no 2, pp.147-155, 2016.
4. G. Leckie and A. Fullerton." The role of academic librarians in fostering a pedagogy for
5. Information literacy". <https://www.ala.org/ala/acrl/acrlevents/leckie99.pdf> .
6. ACRL, Guidelines for instruction programs in academic libraries, 2016. <https://www.ala.org/standards>.
7. L. Krier, "Library curriculum outside the Classroom: connecting library services to classroom", *Journal of academic librarianship*, vol.47, no 2, pp. 1-3, 2021.
8. L. Jacobs, "Teaching and learning linked to embedded librarian", 2012 LIS Symposium, UNISA, 2012. file:///C:/Users/acer/AppData/Local/Temp/2012/LIS/Research/Symposium.pdf.
9. 8-J.Varlejs, " IFLA guidelines for continuing professional development and best practices", 2016".<https://www.ifla.org> ».
10. K.Collin, B. Van der Heijden, and P.Lewis," Continuing professional development", *International journal of training and development*. Vol.16, no 3, pp. 155-163, 2012.
11. A.Moonasar and P.G.Underwood, "Continuing professional development opportunities in information and communication technology for academic librarians at the Durban University of Technology, 2018. <http://sajlis.journals.ac.za.doi:10./84-1-1759>.
12. T. Adanu, " Continuing professional development in state-owned university libraries in Ghana.Library management ", vol.28, nos 6 , pp.292-305, 2006.
13. J. Zemengue. Forming the system of training of library staff in the Republic of Cameroon. (Doctoral dissertation). Belarusse State University of Culture and Arts,Minsk,Belarus 168 p., 2014.
14. R.M. Shafack,"The library and Information Science (LIS)profession and the Cameroon development vision 2035: A perception study". *Journal of sustainable development*, vol.9, no 4, pp.225-233, 2016.
15. ACRL. Statement on professional development.2000.www.ala.org/acrl/standards
16. A.S. Otsonu, F. Asoh, Z.A. Abubakar, A.O.Odu, " Challenges and strategies to enhance staff development for effective library services in special libraries in Benue state – Nigeria", *International journal of education, learning and development*, vol.4, no 4, pp. 12-20, 2016.
17. A.Benedetti, G.Boehme, K. Denlinger; T.R. Casswell, C.B. Soehner .et al." Top trends in academic libraries: a review of the trends and issues affecting academic libraries in higher education", *Association of College and Research Libraries*, Vol.81, no 6, 2021,<https://crln.acrl.org/index.php/crlnews/article/view/24478/32315/>
18. ACRL, Framework for information literacy for higher education , *Association of College and Research Libraries*,18 p., 2016.<https://www.ala.org/acrl/standards/ilframework>
19. L.Bewick and S.Corall(2009). « Developing librarians as teachers : a study of their pedagogical knowledge. *Journal of Library and Information science*, vol.42, no2, pp.97-110, 2009
20. P,Nonthacumjane, "Key skills and competencies of a new generation of LIS professionals", IFLA Journal, vol. 37, no 4,pp.280-288, 2011.

21. C.Palazzolo, K.Kern,N. Falciani White ,C. Earmon et al. Top trends 2018 in academic libraries : a review of the trends and issues affecting academic libraries in higher education, *Association of College and Research Libraries*, 2018. <https://crln.acrl.org/index.php/crlnews/article/view/17001/1875>.
22. J.Raju,"Core competencies in LIS education: professional, generic and personal competencies for the higher education. WLIC conference and assembly International Quality Assessment of LIS Education Programms Satellite Meeting", 2006. <https://www.oclc.org/content/dam/oclc/events/2016/IFLA2016/presentations/Core-Competencies-in-LIS-Education.pdf/2006>.
23. J.Raju, "To teach or not to teach? The question of the academic librarian's pedagogical competencies in the digital age", *South African Journal of higher education*, vol.31, no2, 2017. <https://doi.org/10.20853/31-2-1096>.
24. J. Raju. LIS competency index for the higher education in South Africa, 2017. <https://openbooks.uct.ac.za/uct/catalog/book/LISindex>.
25. D.Amsberry, P.State, S.Miller, et al. "Roles and strengths of teaching librarians", *Association of College and Research Libraries*, 2017.<https://www.ala.org/acrl/standards/>.
26. A. Eyango Mouen, Les bibliothèques de recherche et les enjeux de leur modernisation, Ecole CERN-UNESCO, Rabat, 22-26 Novembre 2010. <https://indico.cern.ch/event/114326/>.
27. M. Diarra, " Les bibliothèques universitaires africaines à l'heure de la réforme LMD ", 11p., 2015. Conferencepaper.<https://www.researchgate.net/publication/309638037>.
28. University of Yaoundé I. Budget 2020. Programme 242. Modernisation et professionnalisation des établissements facultaires classiques. Coordination et pilotage de la bibliothèque centrale et des réseaux de toutes les bibliothèques, Mise en œuvre de l'information et des ressources documentaires au niveau central.
29. R.C.Jantz," Innovation in Academic Libraries: An Analysis of University Librarians' Perspectives". *Library and Information Science Research*, vol. 34, no 1, pp.3-12,2012.
30. L.Appleton,"Training and development for librarians: why bother?" 2018. <https://libraryconnect.elsevier.com/articles/training-and-development-librarians-why-bother>.
31. J.S.Kasalu and J.B. Ojiambo, (2015)"Educating the health librarians in Africa today: competencies skills and attitudes required in changing health environment", IFLA WLIC conference paper, 2015. <https://www.researchgate.net/publication/308199956>.
32. A.M.Bertrand, La formation des personnels des bibliothèques universitaires, in : Cavalier, F. and Poulain, M. (Eds.), *Bibliothèques universitaires* (pp.281-290).Paris : Editions du cercle de la librairie, 2015.
33. D. Papin and E. Rondeau, "Bibliothèques et compétences informationnelles : un enjeu de formation à l'Université du Québec". *Bulletin des bibliothèques de France*, vol. 16, pp.76-80, 2018.
34. Abbreviations.
35. CPD : Continuing Professional Development.
36. C.U.T.I.: Centre Universitaire des Technologies de l'Information (Information Technology center).

APPENDIX I.

QUESTIONNAIRE

This questionnaire, prepared as part of academic research, focuses on the needs librarians at the University of Yaoundé I have in pedagogical skills. Please fill it out.

I- Training

1)- Educational background (Baccalaureate or GCE Advanced level, Bachelor's Degree, Master's Degree, etc.)

2) - Do you have a background in librarianship? (Check the appropriate box).

Yes /No

3)-If yes, specify the level and degree obtained.

4) - If not what is your background?

5)-Have you taken on-the-job training in librarianship?

Yes/No

6) - How long have you been working in the university library?

7) - If you are not a degree holder in librarianship, would you like to undertake training in this area? (Check the appropriate box).

Yes /No

8)-If yes, why?

9) - If no, justify your answer.

II-Activity-related information

1) - In which department do you work?

2)-What position do you hold within the academic library?

3) - Is your department or office computerized?

Yes/No

4) - in what context do you use the computer tool? (Internet consultation, information processing, user registration, user training etc.)

III- Need for training.

1) - Module grids.

In the list of modules below, identify those that you think are most useful for the exercise of your profession

- Module grids. -Sources Model presented by Jaya Raju : Pedagogical competency of the academic librarian in the digital higher education environment (2006, 2017 see Bibliography), and ACRL productions (2017, 2018 see Bibliography).

Grid 1-Generic written and Oral Communication Skills

Nature of the skill	Check the corresponding boxes
Communication skills	
Interpersonal skills	
Presentation skills	
Public speaking	

Grid 2-Knowledge of the digital, legislative and institutional environment.

Nature of the skill	Check the corresponding boxes
Training and developing Staff	
Coaching and training of staff	
Facilitation skills	
National, regional, international organizations operating in the domain of library sciences (IFLA, AFLIA, CALADOM, etc.).	
Objectives of the university in Cameroon - institutional goals - Cameroonian higher education and its various specializations and levels - Campus social-cultural, economic, etc.	
Legal issues related to academic libraries (copyright legislation, different types of license related to on line service provision).	

Grid 3-Information literacy and collaboration with the academic staff

Nature of the skill	Check the appropriate boxes
User education and instruction	
Information literacy instruction	
Collaborate with academic staff to develop subject-related information literacy programs	
Reference experience-Library mediation	
User interface design skills	

Grid 4- Production of teaching material.

Nature of the skill	Check the appropriate boxes
Pedagogical knowledge and competence	
Instructional design (lessons plans, learner centered content, learning outcomes)	
Lessons/Teaching methods/Learning theories/learning styles	
Program management	

Classroom management	
Creating multimedia instructional material	
Instruction related experience	
Online courseware skills (e.g. CMS, LMS)	

2) - Other unmentioned suggestions or needs.

APPENDIX II

INTERVIEW

This appendix reports the questions we asked to librarians during the interview. The latter were conducted sometimes in groups, sometimes individually.

-Do you see your mission as that of a pedagogue?

-Do you regularly organise training sessions to train users?(i.e. students, young researchers, ..) in information literacy?

-If yes, do you think the conditions have been fulfilled to let you implement your mission?

-Do you think it is important to renew your knowledge and know-how in the development of pedagogical competences and skills? What about the CPD in your library?

-As far as user education is concerned what are your relationships with the faculties and departments?

-In case there are some shortcomings, what can you suggest for a closer collaboration with the faculties or departments?

Have you ever trained your colleagues in the library?

Do you have any comments to add in light of the proposed modules? What can you about such or such module you did not tic? (Or a specific module designed by the author).