

Charlotte Nakanduungile, Gregentia Shilongo & Tiina Heino

USE OF ELECTRONIC RESOURCES IN SEARCHING FOR HEALTH INFORMATION AT OSHAKATI CAMPUS

I. Introduction

The development of information and communication technology has expanded the access of library services. The increase in electronic information resources requires new skills to utilize them effectively by both among users and library staff. The library has a leading role in instructional services, such as orientation and training in the use of library resources. Information technology has posed new challenges to libraries, and access to information through the Internet has changed their role (Kaur & Verma 2009).

The Internet has enabled access to electronic books and journals, various databases, and search engines. Even though libraries have been among the early adopters and providers of electronic resources many of the students and academic staff still have difficulties in retrieving information with these resources. User training needs to be increased if researchers, students and lecturers want to become and remain efficient in information retrieval. It is also important that the library staff keep their skills and knowledge up-to-date, and therefore training

for them is also crucial. Information is the cornerstone on which the survival of any society depends.

The attitude to using electronic resources is positive, but lack of awareness is found to be a big barrier, therefore more user training as well as marketing of electronic resources is needed (Borrego & Anglada & Barrios & Comellas 2007; Ibrahim 2004). Ndinoshiho (2010) emphasizes that lack of computer skills, shortage of computers, and slow and unstable Internet connections make the use of electronic resources difficult. The high quality of the electronic resources available motivates users (Okiki & Asiru 2011). The accessibility and availability of literature on electronic resources has a positive effect on researchers' publication productivity (Vakkari 2008).

In this study we consider the usage of electronic resources at the School of Nursing and Public Health at Oshakati Campus, University of Namibia (UNAM).

2. Background information

The School of Nursing and Public Health at Oshakati Campus

The School of Nursing and Public Health at Oshakati Campus prepares academically and professionally qualified personnel for Namibian health care in preventive, curative and rehabilitative health fields. The Oshakati Campus Library has a central role in the academic programmes and helps the School of Nursing and Public Health to fulfill its UNAM mandate in teaching and learning by creating an appropriate study and research environment. The Library provides the information infrastructure necessary for the students' learning and research needs, and thereby contributing to positive graduate outcomes. Oshakati Campus Library faces pressures like reduced annual budgets

and rising costs for electronic resources subscriptions. The UNAM uses a proportion of its annual budget for the acquisition of electronic information resources, and it is a major mission for an academic library to assist the University's research and learning programme.

Electronic resources of academic libraries in education

In today's libraries quick access to electronic resources is vital for patrons. It is imperative that health care educators incorporate information technologies into their teaching (Hjørland 2007). There is a growing need for nurses to access the latest health information, and they need to have quick access to it when meeting a patient (Bachman & Panzarine 1998). Appleton (2004) emphasizes that the teaching staff expects the students to use databases and electronic journals: the use of these electronic resources is accepted as fundamental to health studies. It appears that the rate of production of electronic materials has exceeded that of print-based publications (Dalglish & Hall 2000). Library staff requires better tools beyond those integrated library systems offer to be able to manage the large number of e-journals, e-books, and databases in their collections (Czechowski & Fort & Spear 2012).

It is beyond dispute the library is the major source of information when academic staff and students search for information for their educational needs. McDowell (2002) highlights the cooperation between lecturers and library staff: library staff knows the information environment and lecturers have the subject knowledge.

Tenopir (2003) analysed the results of over 200 studies on the use of electronic resources in libraries published between 1995 and 2003. The main findings of these studies indicate that electronic resources have been rapidly adopted in academic spheres though the behaviour of users varies according to their discipline. Users find it useful to be able to search across a wide range of journal articles, and

also within an article. The opportunity to access current material any time from the desktop computer was also considered strongly positive. Downloading or printing the desired document or segment, storing articles electronically, and easy scholarly communication by sending the articles to colleagues were likewise found useful. The students found electronic books useful because they could make searches in the text itself, and did not need to carry heavy textbooks (Rickman & Von Holzen & Klute, & Tobin 2009). Ongozi and Baki (2010) found that students considered electronic books environmentally friendly. The opportunity for multiple users to access same book simultaneously was also regarded as an advantage. McDowell (2002) surveyed lecturers' attitudes to electronic resources and found that lecturers considered students became more independent learners by accessing and using electronic resources. By using the electronic resources the users access a wider range of information, and they get it faster and easier.

3. Objectives

The aim of this study was to investigate how well the nursing students and staff knew and were aware of the electronic resources available at the library website of the Oshakati Campus Library. The adequacy and the level of use of these resources were also investigated. This study yielded information that may enable UNAM Oshakati Campus Library to take stock of its mandate and to evaluate its performance and service delivery to see if these meet the expectations of academic staff in nursing.

Academic staff in nursing are health care educators working full-time or part-time for the School of Nursing and Public Health at UNAM Oshakati Campus. Nursing students are full-time students registered for bachelor's degrees in nursing and clinical science at the same campus. Electronic resources refer to all databases (open

access and subscribed), electronic journals and books, online catalogue (OPAC), websites, electronic texts and other materials that are subscribed to and available on the UNAM Library website. Information literacy is the ability to access, search, interpret and use health information for whatever purpose.

The specific objectives of the study were:

- To explore the purpose and frequency of use of library electronic resources and services
- To identify the habitually used types of electronic resources
- To identify the benefit of using electronic resources
- To identify barriers encountered when searching for information in electronic resources
- To identify areas/programmes where training is needed
- To suggest actions to make library services effective and efficient

4. Methodology

To obtain qualitative and quantitative data a questionnaire including both open-ended and closed questions was distributed to 141 students in their second, third or fourth years study, and to 22 academic staff from the School of Nursing and Public Health.

In addition to demographic information the questionnaire elicited information on topics related to searching for information in electronic resources, the respondents' use and awareness of electronic resources, the relevance and quality of information resources, the benefits of and barriers to using e-resources, and information literacy and professional development. It required 15–20 minutes to complete. Permission was sought from the Oshakati Campus Director, and the Head of Department of Nursing and Public Health who informed her colleagues

(lecturers) and encouraged them to participate in this study. Permission was also sought from lecturers teaching graduate students to administer the questionnaires during their teaching time without disturbing lectures. All responses were anonymous.

A total of 132 questionnaires were completed and returned giving a response rate of 93.6%. Of the respondents 81.1 % were female. The age of 62.9% of the respondents was between 21 and 30 years. Most respondents 40.2% were in the fourth year of their studies. A few of the respondents, 3.8%, held positions as lecturers and their teaching experience ranged from four to 26 years.

5. Research findings

Searching for information in e-resources

Frequency of searching for relevant information is a very important issue for the Library as it can be used to measure how electronic resources can contribute to the Library's mission as well as to the UNAM vision of teaching, learning, researching and community services. Figure 1 shows that the majority of respondents, 40.9%, rarely sought information in e-resources, while 29.5% sought information on a weekly basis. Respondents seeking information in e-resources daily amounted to 13.6%.

The study revealed that most respondents (59.8%) spent 1–2 hours searching electronic resources in the library. However 60.6% of respondents admitted that they had difficulties in accessing e-resources at Oshakati Campus Library.

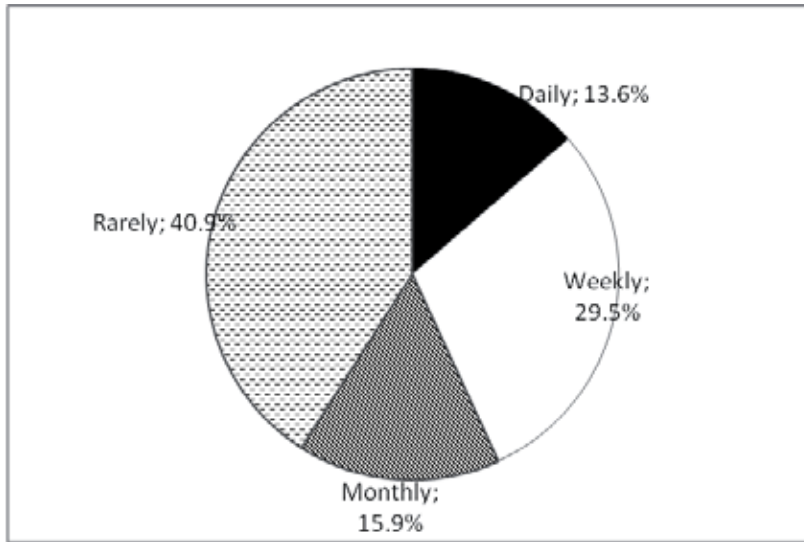


Figure 1. Frequency of seeking information in e-resources

Use of electronic resources

Despite the amount of specialized electronic resources available in the Library, users tend to use other sources and tools. And whatever tools they chose depended on their skills to judge whether such a resource was correct and factual or not. Respondents were asked to indicate multiple information sources that they usually used. Table 1 shows that the most used source of information at 80% of respondents is the Internet. None of the respondents reported using DVDs and videos and online seminars.

Table 1. Information sources used by respondents

Information sources	N	%
Electronic databases	3	2.4
Internet	106	80
E-journals, E-books	23	17.4
DVDs and videos, video conference	0	0
Online seminars, online conferences	0	0

Respondents were asked to report the tools they used to find e-resources in the Library. Figure 2 shows that 38.6% used the Library website while 29.5% used colleagues to find e-resources in the Library. It also emerged that respondents asked help twice as often from their colleagues as from the library staff, even when searching information in the Library.

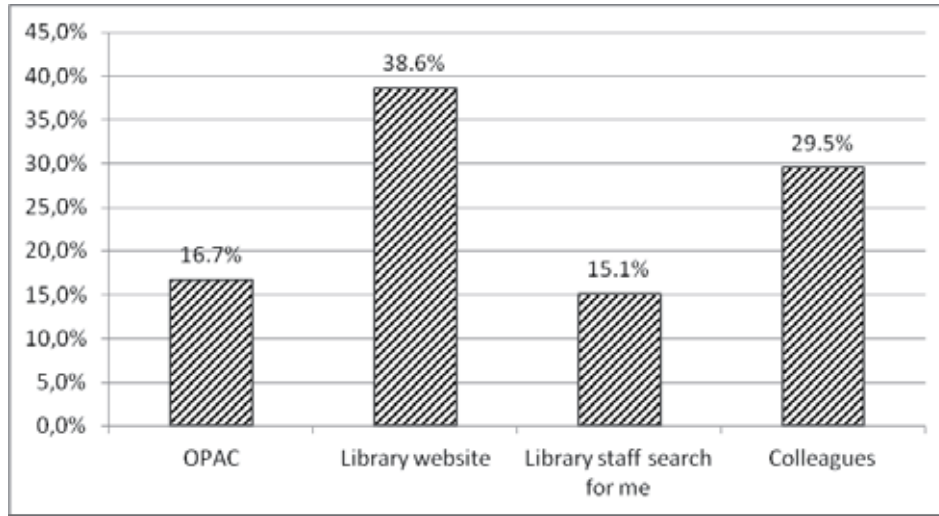


Figure 2. Tools used to find e-resources in the Library

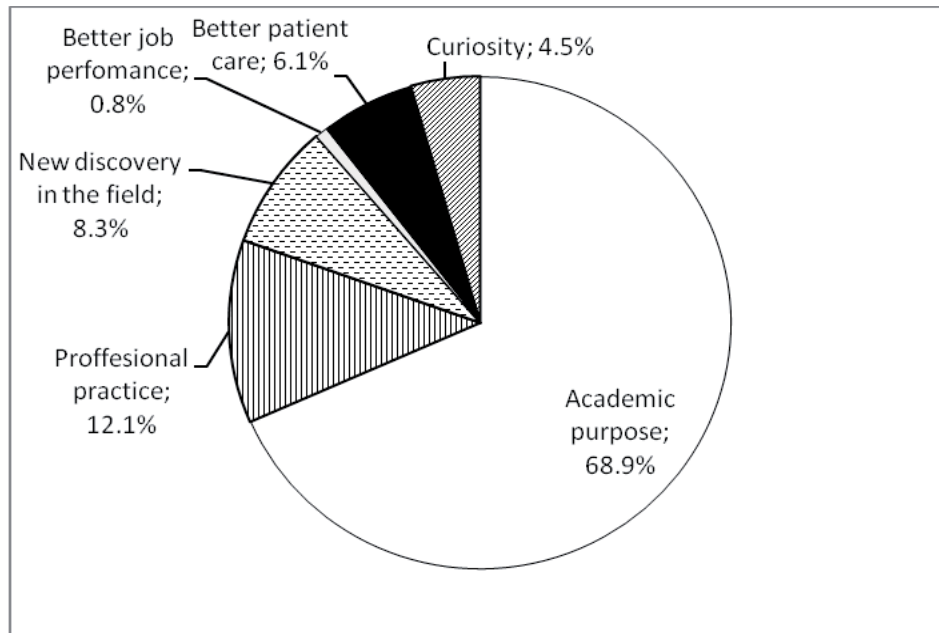


Figure 3. Reasons motivating respondents to search

Respondents were asked about the reasons that motivated them to search for information. Figure 3 shows that 73.5% were motivated to search for academic purposes. Surprisingly, 4.5% of respondents also reported searching out of curiosity.

Use and awareness of information sources

Regarding usage and awareness of the information sources available in Oshakati Library (Table 2) shows that the most used database was Health Source and the second one was Global Health. HINARI, Medline and PubMed Central were not used so much. Nine respondents reported not using any of the databases listed. Participants were allowed to indicate multiple sources.

Table 2. Electronic databases used in the Library

Electronic Database	N	%
Medline	3	2.3
Health Source	67	50.8
HINARI	8	6.1
Global Health	21	15.9
PubMed Central	3	2.3
Other: Google	2	1.5
None of the above	9	6.8

The majority of respondents (93.9%) were not aware of nursing e-journals available in the library. The 6.1% of respondents reporting awareness were asked to name the three journals that they liked most. These three journals were:

1. Nursing Magazine
2. General Nursing
3. Research in Nursing

Respondents were further asked if the library e-journals met their academic needs. The question was clearly formulated but disappointingly 90.9% did not respond. Only 3.8% reported that e-journals did indeed meet their academic needs, while 5.3% reported that they did not.

Respondents were asked to list subject areas of e-journals or e-books that they think the library should have. These were:

1. Research in nursing
2. Midwifery practical
3. Oncology
4. Management
5. Anatomy and physiology
6. Community nursing
7. General nursing

The list of the subject areas that need most attention according to respondents:

1. Research methods in nursing
2. Pharmacology
3. Human anatomy and physiology
4. Nursing sociology
5. Community health
6. Psychology
7. Pharmacotherapy

The respondents' opinions of which kinds of audiovisual materials the Library should have:

1. Anatomy and physiology of all body systems
2. Cell division
3. Cardiac blood supply

4. Dialysis (haemodialysis)
5. Operations/surgeries of different scenarios
6. Management of general mental health
7. Childhood and adolescent diseases
8. Disaster preparedness
9. Patient care

Assessment of the relevance and quality of sources of information to nursing practice

Respondents were asked to evaluate the adequacy of the nursing e-resources available at the UNAM website. Table 3 shows how participants responded. 15.1% indicated that e-resources were outdated at the UNAM website. They reasoned that when changes are made in the curriculum or in a certain course, the website does not change immediately, and 4.5% of respondents reported that the e-resources available were irrelevant because one got unnecessary information.

Table 3. Evaluation of the adequacy of nursing e-resources on the UNAM website

Evaluation criteria	N	%
Relevant	33	25
Irrelevant	6	4.5
Up-to-date	27	20.5
Outdated	19	14.4
Average	18	13.6
Poor	23	17.4
No response	6	4.5
Total	132	100

The majority of respondents, 65.9%, considered the available e-resources relevant to their studies, work and teaching, while 25.8% said they were not relevant because they were outdated and inadequate.

Benefit of using electronic information resources

Respondents were asked to describe their positive experiences of using Library e-resources. Figure 4 shows that 50.8% reported that e-resources contained useful information for their studies, and 4.5% reported that they had useful information for their teaching, while 12.1% claimed that using library e-resources saved them time. Furthermore, 25% said that they did not use electronic resources.

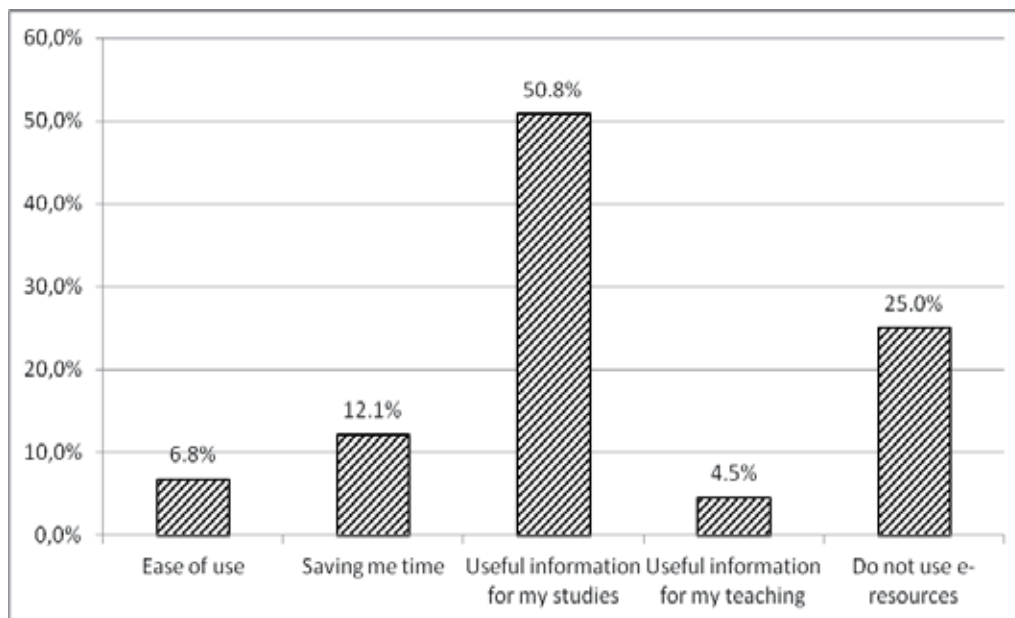


Figure 4. Respondent's experiences in using the Library e-resources

Figure 5 shows that 59.8% reported that the Internet was more useful to them, while 6.5% reported that the Internet and Library electronic resources were equally useful to them, and 4% considered the Library e-resources more useful.

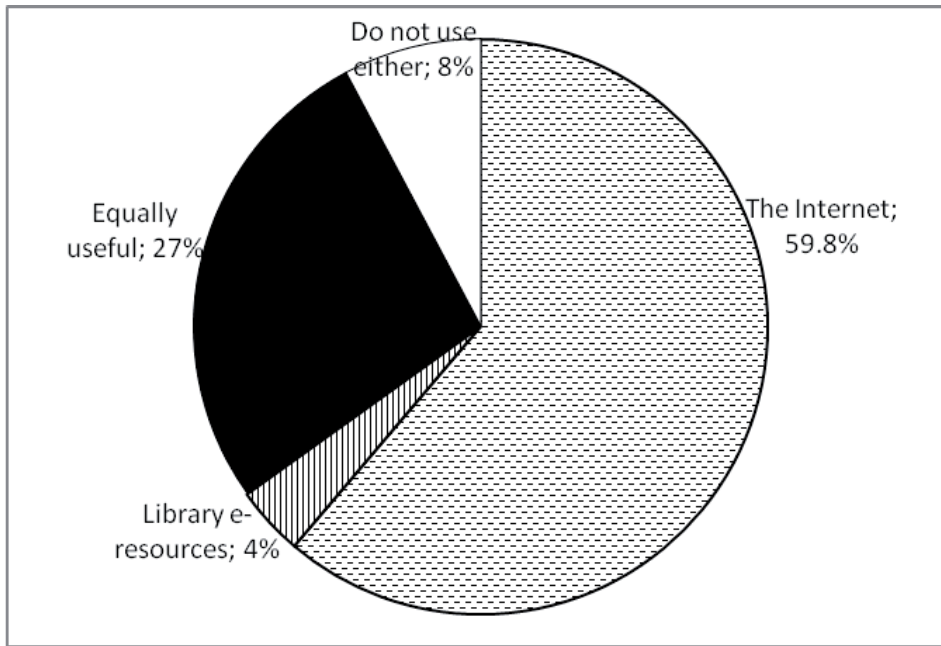


Figure 5. Comparisons in use between the Internet and the Library e-resources

Barriers to the access and use of electronic resources

When respondents were asked to state whether they encountered problems when searching for electronic resources, and also to give suggestions to improve the situation, 68.2% admitted that they encountered problems while 23.5% reportedly did not experience problems. Respondents experiencing problems suggested the following:

- a. The library needs to fix computers that are “out of order” or acquire enough new computers that will work properly and fast.
- b. Provide regular user training, and print out clear instructions to help users at each PC, or recruit someone to assist users when they have difficulties in searching e-resources.
- c. Improve the speed and Internet connection.
- d. Staff should be willing to help users to use the services provided.

- e. Supply users with the usernames and passwords of databases the Library has access to.
- f. Install Adobe Reader for users to access information in PDF format.
- g. Information literacy training needs to be extended to all useful information that needs to be taught.
- h. The Library needs to provide wireless connections for users to use their own laptops and notebooks without too many restrictions.
- i. The Library needs to extend the computer lab because the current one is very small.

Figure 6 shows that almost half of respondents, 42.4%, were discouraged from using the Library's e-databases by slow speed of network.

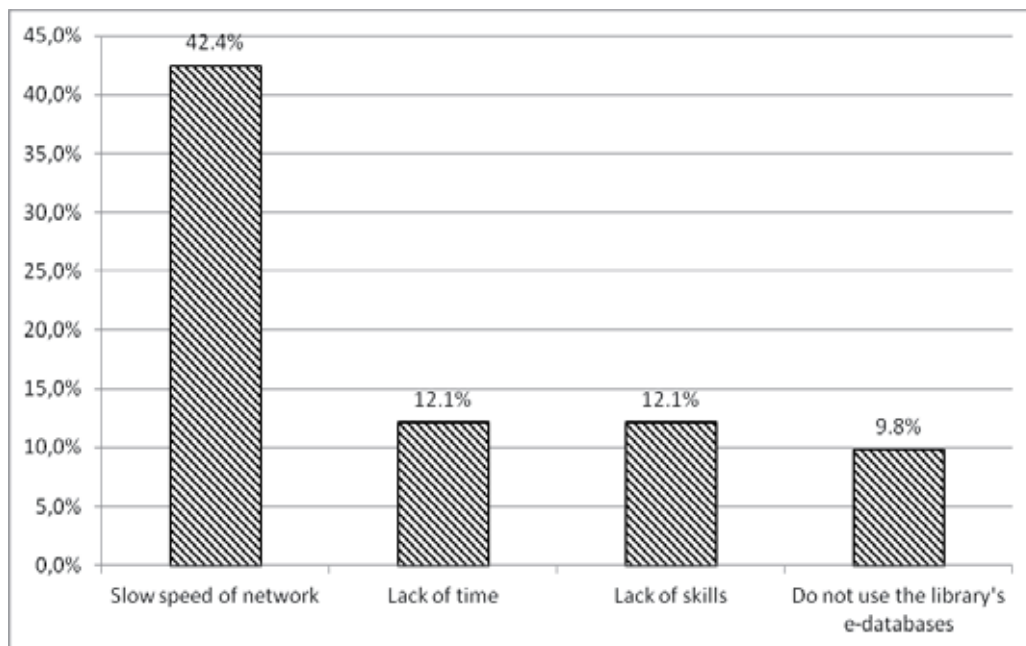


Figure 6. What discourages respondents from using the Library's e-databases

Respondents were asked if they used the UNAM Libraries catalogue (OPAC) to search for e-resources, and 62.1% did not use it because

they lacked skills since they had not been trained. They also claimed that OPAC computers are always “out of order”. Some respondents did not have time to use the catalogue and some were not aware of OPAC being available. Those reporting that they used OPAC to search for e-resources amounted to 32.6%. The respondents were asked how they had learned to use OPAC. Some reported learning it through Library orientation training (information literacy) given by the Library staff, some through friends and colleagues. Respondents who had used OPAC were asked about their experiences and the following responses were received:

- a. The OPAC is complicated to use.
- b. The system is always slow to search and retrieve information within the limited short time that I get.
- c. Information manuals on how to operate OPAC are needed at all OPAC computers.
- d. Very limited experience, more training is needed.
- e. Has been a good experience as the process is fast and it is easy to locate materials in the library.
- f. It saves me time and it's very reliable because I get exactly what I requested.

Information literacy and professional development

Respondents were asked if they had received training in any of the following programmes: library orientation, how to use the Library's e-databases, or Internet searching skills. Figure 7 shows that the majority of respondents, 51.5%, had received library orientation.

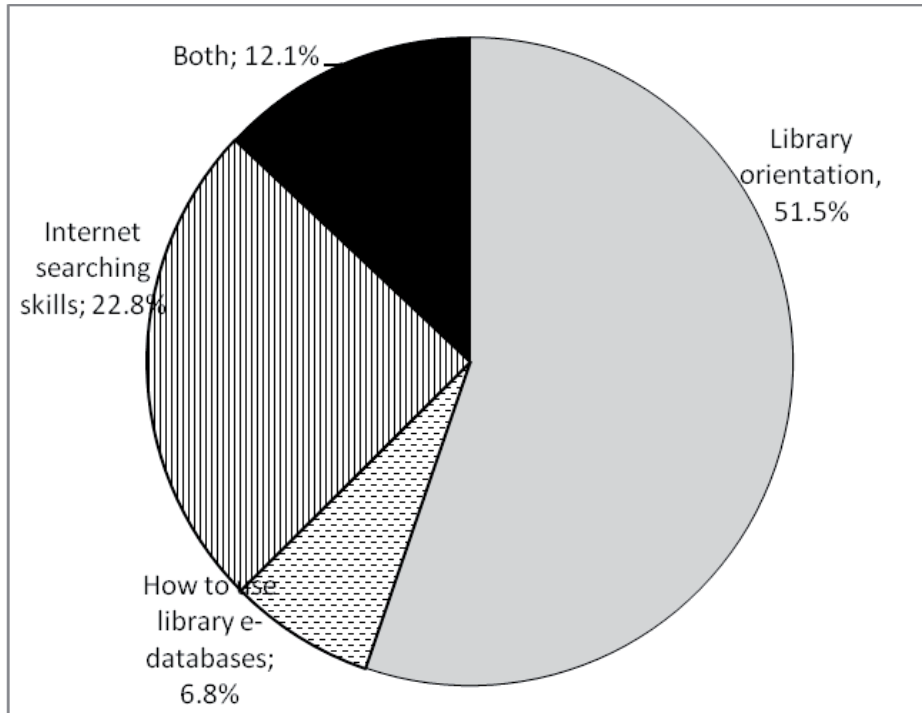


Figure 7. Training received by respondents

Respondents were further asked if they contributed towards the development of the UNAM Library collections and 32.6% reported that they contributed by suggesting information resources which were relevant and could be used by academic staff as well as by students. However, 42.4% reported that they did not contribute while 3.8% were not sure if they could contribute towards the development of the Library collections.

Regular consultations are needed between users and librarians to make sure that the Library collections meet users' needs. Respondents were asked if they thought that they should be consulted before the Library subscribed to e-resources (databases, e-journals, e-books) and 68.2% reported that they should be consulted about which e-resources were worth subscribing to, and which were outdated and needed to be updated. They also wanted to be aware of new developments in the Library, especially regarding e-resources. However, 16.7% indicated that they need not to be consulted.

The majority, 51.5%, reported dissatisfaction with Library staff customer service/care. They made comments such as:

- a. Some of the Library staff are difficult, slow, and refuse to help.
- b. Some lack good communication skills and do not give clear information.
- c. Female Library staff are not always in a good mood; they are rude and have no respect.
- d. Most times they are busy with their personal issues and do not pay much attention to users, especially regarding computers.
- e. Some Library staff serve those users they know well, and sometimes they keep users waiting for their services for a long time.

Of the respondents 37.9% reported that they were satisfied with the Library staff and customer services. Respondents showed their appreciation by saying that the Library staff was very warm and sincere. Some said that the Library staff were quite friendly and did their best to assist.

Respondents were asked to give their general comments on the Library services at Oshakati Campus Library:

- a. Internet connection must be improved and all computers that are not working should be repaired or replaced by new computers.
- b. A full-time computer technician is also needed to help users in the computer lab.
- c. Female staff need to change their attitudes towards users and improve their communication skills.
- d. Rules on safety and personal property should be reviewed, we (users) feel unsafe.
- e. Please provide more training on how to use OPAC and how to access e-resources in the Library.
- f. The Library air conditioning should be adjusted properly, it's always too cold.

- g. Students must be treated equally.
- h. Librarians should print all instructions about how to access and use OPAC and e-resources.
- i. Extend the computer lab and provide wireless connections.
- j. The Library is always overcrowded with learners from nearby schools and UNAM students can hardly find empty spaces. The Library staff needs to change their rules and start to refer learners to public libraries.
- k. Library hygiene and maintenance is excellent.
- l. Amendments must be made on using cellphones in the Library

6. Limitations

This study provided valuable data on which to base further actions and investigations, and also on how to improve study design in future research. The study was limited by the small sample size of a total of 132 participants, who composed a convenience sample, but not a true random sample. The study was also limited by the low participation of academic staff, who were supposed to provide information at another level than the students' skills and experiences. One limitation may be that the questionnaire included ambiguous wording and Library terminology that were not clear to respondents. Only a questionnaire was used to collect data, which may be a limitation. In future research the impact of information literacy training on students and staff for their performance in studies, teaching and research, would be of interest.

7. Discussion

We studied the use and awareness of the electronic resources, as well as the benefits of and barriers to in using them at the Oshakati Campus. It emerged that many respondents were using Internet, but not so much the databases and e-resources available on the Library website. Most of the respondents did not know about the electronic journals available. All this emphasizes that marketing, communication and user training are crucial, which is in line with the findings of Borrego et al. (2007) and Ibrahim (2004). In our study the importance of the functioning infrastructure of computers and Internet connections emerged as also in the study by Ndinoshiho (2010).

The respondents attached importance to user training. It has been seen in several studies that an information literacy programme has a positive effect on the information searching skills of the nursing students (Shorten & Wallace, & Crookes 2001; Craig & Corral 2007). It is also argued that librarians should be leaders in promoting IL activities (Grassian & Kaplowitz 2009; Diep & Nahl 2011).

Hallyburton and St John (2010) point out that “to bridge the gaps in information literacy and lifelong learning, nurse educators, nursing students, and librarians must work together and use as many communication formats as needed to accomplish their goals”. Hollister (2010) claims that “the credit-bearing information literacy course is an increasingly useful, effective and even popular vehicle for integrating libraries into college and university curricula, and for advancing the cause of IL across campus”. At UNAM IL is treated as an extra-curricular activity, not as an integral part of the curricula. For this reason library users may not see or realize the importance of IL.

Diep and Nahl (2011) suggest that to prepare students for the information demands inherent in personal, academic and career life, they must acquire the ability to access information efficiently and effectively, evaluate information critically and competently, and use information accurately and creatively to make good decisions. “One of

the challenges facing libraries is teaching skills that help students keep current with developments in advanced technologies and exponential information growth throughout their lifetime.” Chowdhury (2010) agrees that although the developments of web interfaces and online search services have become easier to use, one still needs training and practice to become an expert online searcher. According to him, users need to be familiarized with the search interface and they must learn various search options. This was also one of the outcomes of our study: users want to learn to use the electronic resources, and they want help from the Library staff.

It is a known fact in business life that high quality customer service is very important in order to achieve and retain customers. In our study it also emerged that the customers were not totally satisfied with the help received from the Library staff. In modern marketing philosophy marketing is everybody’s responsibility (Vierula 2009). It is important that library services meet customers’ needs: the library services would be utilized more efficiently, and the customers feel that the library staff and services are there for them.

On the basis of our study we want to present the following recommendations:

- a. Information literacy training should be provided on a regular basis (OPAC and e-resources) to all students, staff and other Library users. This will help them to easily access, use and evaluate the Library e-resources available.
- b. An information literacy programme must be included in the University curricula to increase attendance and to stress its importance.
- c. A more aggressive information marketing strategy to raise awareness among students and staff should be developed by both subject librarians and on departmental level.

- d. Library staff should participate in-service training in customer care skills. To be able to perform their duties well, the Library staff should also familiarize themselves with work ethics, policies and procedures.
- e. The Library needs to acquire new computer machines and improve Internet connectivity.

8. Conclusion

The study contributed to a broader understanding that the majority of students and staff are not aware of the electronic resources – databases, e-journals, e-books – that are subscribed to and available on the UNAM Library website. The study also discovered that most Library users have inadequate training in using the Library electronic resources and even lack the necessary basic skills to utilize the resources. The study also revealed that not all Library staff have good skills in customer care. Internet connection was too slow and some computers were not functioning at all. A follow-up study could be done after two years in order to ascertain how the improvements made on the basis of this study have affected the customers' information behaviour.

References

- Appleton, L. (2004). The use of electronic books in midwifery education: The student perspective. *Health Information and Libraries Journal*, 21(4), 245–252.
- Bachman, J.A. & Panzarine, S. (1998). Enabling student nurses to use the information superhighway. *Journal of Nursing Education*, 37(4), 155–161.

- Borrego, A. & Anglada, L. & Barrios, M. & Comellas, N. (2007). Use and users of electronic journals at Catalan universities: The results of a survey. *Journal of Academic Librarianship*, 33(1), 67–75.
- Chowdhury, G.G. (2010). *Introduction to modern information retrieval* (3rd ed.). London: Facet.
- Craig, A. & Corral, S. (2007). Making a difference? Measuring the impact of an information literacy programme for pre-registration nursing students in the UK. *Health Information & Libraries Journal*, 24(2), 118–127.
- Czechowski, L. & Fort, M. & Spear, G. (2012). Implementing a new ERMS & link resolver to better manage E-resources. *Serials Review*, 38(1), 31–35.
- Dalgleish, A. & Hall, R. (2000). Uses and perceptions of the world wide web in an information-seeking environment. *Journal of Librarianship and Information Science*, 32(3), 104–116.
- Diep, K.C. & Nahl, D. (2011). Information literacy instruction in four Vietnamese University Libraries. *The International Information & Library Review*, 43(4), 198–206.
- Grassian, E.S. & Kaplowitz, J.R. (2009) *Information literacy instruction: Theory and practice*, second edition. New York: Neal-Schuman Publishers, Inc.
- Hallyburton, A. & St John, B. (2010). Partnering with your library to strengthen nursing research. *Journal of Nursing Education*, 49(3), 164–167.
- Hjørland, B. (2005) *Core concepts in library and information science (LIS)*. Retrieved from [http://www.iva.dk/bh/Core Concepts in LIS/](http://www.iva.dk/bh/Core%20Concepts%20in%20LIS/) (accessed 27 June 2012).
- Hollister, C.V. (2010) *Best practices for credit-bearing information literacy courses*. Chicago: Association of College and Research Libraries.
- Ibrahim, A.E. (2004). Use and user perception of electronic resources in the United Arab Emirates University (UAEU). *Libri*, 54(1), 18–29.
- Kaur, B. & Verma, R. (2009). Use of electronic information resources: A case study of Thapar University. *DESIDOC Journal of Library & Information Technology*, 29(2), 67–73.
- McDowell, L. (2002). Electronic information resources in undergraduate education: An exploratory study of opportunities for student learning and independence. *British Journal of Educational Technology*, 33(3), 255–266.
- Ndinoshiho, J. (2010). The use of electronic information services by undergraduate nursing students at the University of Namibia's Northern Campus: A descriptive study. *Information Development*, 26(1), 57–65.

- Okiki, O.C. & Asiru, S. M. (2011). Use of electronic information sources by postgraduate students in Nigeria: Influencing factors. *Library Philosophy and Practice*. Retrieved from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1518&context=libphilprac> (accessed 16 October 2012).
- Ongozi, S. & Baki, A. (2010). E-book usage of graduate students studying educational sciences in Turkiye. *Turkish Online Journal of Distance Education*, 11(1), 198–210.
- Rickman, J.T. & Von Holzen, R. & Klute, P.G. & Tobin, T. (2009). A campus-wide E-textbook initiative. *EDUCAUSE Quarterly*, 32(2), 7.
- Shorten, A. & Wallace, M. C. & Crookes, P. A. (2001). Developing information literacy: A key to evidence-based nursing. *International Nursing Review*, 48(2), 86–92.
- Tenopir, C. (2003). *Use and users of electronic library resources: An overview and analysis of recent research studies*. Washington, D.C.: Council on Library and Information Resources.
- Vakkari, P. (2008). Perceived influence of the use of electronic information resources on scholarly work and publication productivity. *Journal of the American Society for Information Science and Technology*, 59(4), 602–612.
- Vierula, M. (2009). *Markkinointi, myynti ja viestintä: Suuri integraatiokirja*. (Marketing, selling, and communication: The big book of integration). Helsinki: Talentum.



Section 3

LIBRARY COLLECTIONS AND SERVICES FOR THE ACADEMIC COMMUNITY





Helsinki University Main Library in Kaisa House, Helsinki, Finland
Photo: Tuomas Uusheimo

