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Abstract

The research was done to investigate the information seeking behaviour among students at the University of Namibia. The study was conducted to find out the reasons why students do not attend the information literacy training offered by the University of Namibia library and to recommend ways in which information literacy can be integrated into the curriculum. The study used both quantitative and qualitative data collection methods by employing self-administered questionnaires distributed to participants and using focus group interviews with library staff to ensure validity of the results. The findings showed varied reasons for low turnout by the students for training and chief among these are poor communication of information to students concerning the days of training and lack of information on the part of students concerning the significance of training in information literacy. The findings also revealed that many students had the competence to use the internet, although they lacked knowledge of particular websites and databases which were relevant to their studies. The majority of students suggested more training as measures that can be taken to improve information literacy at the university and pointed out that students must be informed properly about training sessions. It was observed that the training did not have a written curriculum and it was recommended that a curriculum be developed to meet the needs of different students. It was also recommended that critical databases must be made available to students through distribution of pamphlets and wall posters so that those students who are capable of using computers can access these databases that are critical to their studies.

Introduction

This paper reports on a recent study that was conducted at the University of Namibia in 2010 to establish corrective measures towards the improvement of the information literacy program offered by the library. The library staff are trying to extend their services and resources to students via information literacy training for the purpose of supporting the mission of the university that is of teaching, learning, and development. The author believes that teaching people how to access academic, health, socioeconomic information and others is the key to making a contribution to the achievement of the Namibian vision 2030. Students need to be information literate to be successful in their studies and become proactive to effectively contribute to the development of the country. In this manner they will also have acquired the skills that will enable them to remain lifelong learners.

This article is a result of the empirical study on Information Literacy at the University of Namibia conducted in 2010.

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Information literacy concept

Information literacy is commonly described as the ability to recognize when information is needed and to have the ability to locate, evaluate, and use information effectively (Feather & Sturges 2003). In the last decade information literacy has become a global issue and many information literacy initiatives have been documented throughout the world that address many concerns relative to technology and information skills. In education, teachers, librarians and others are working to integrate information skills instruction within the curricula to achieve relevant learning outcomes. Employers and policy makers are encouraging workers to develop appropriate technology and information skills to handle their jobs effectively. Martin & Rader (2006) defined information literacy as a set of abilities to: Determine the extent of information needed; locate and evaluate information; incorporate selected information into one's knowledge base; and use information ethically, legally and with an understanding of economic and social issues. Information literacy includes library literacy, media literacy, computer literacy, internet literacy, research literacy and critical thinking skills.

Background to the problem

At the University of Namibia, Information literacy started in 2000 as part of the University library program to educate students on the resources and the services of the library, to teach them how to search online the public access catalogue (OPAC). Due to the changes in information infrastructure, the library started subscribing to e-resources and also digitized part of its collection such as past examination papers, the institutional repository for academic research and some local databases. All those resources are searchable through the library web page. The library has had about 140 computers with internet since 2008. Library management introduced the programme of Information Literacy to teach students on how to use the library and how to access these resources. Students need to effectively assess and analyze the relevancy, quality, quantity, and sources of the information they retrieve (Cooney & Hiris, 2004). Information literacy is a combination of skills which are vital in all disciplines to support effective teaching and learning in any institution and it is high time that it be integrated across the curriculum in all universities for students to become information literate in the 21st century information society (Cooney & Hiris, 2004).

The university has an estimated number of about 12 000 students registered for 2010, sharing 140 computers in the library computer work station. Each student is given one hour to use the computer for internet and word processing. The library has one training laboratory with 20 computers, that is used for information literacy training. One-on-one training is also given to library users by subject librarians in their offices. The trainers of the Information Literacy Program are subject librarians. Each librarian trains their respective faculties by requesting academic lecturers to bring students to the library for the training, or by putting notices about the training on the notice board at the respective faculty and the library. Since the library only has one training room with twenty computers, academic lecturers with big classes have to divide students into groups to be able to share the computers. Each group is given two sessions of one hour each.

The first session covers the following

Students are introduced to the library by touring different sections of the library such as; open shelves, short loan, references, periodicals, wireless rooms, circulation desk, special collection, archive section, reference desk, and explaining different library terms to students.

Students are explained the importance of using library resources for learning and educational purposes.

Students are given practical training in searching the library catalogue- the Online Public Access Catalogue (OPAC), to be able to find the location of materials in the library.

Students are taught about referencing and plagiarism.

The second session covers the following

An overview of the library web pages <u>http://library.unam.na</u>

Practical teaching in searching different databases for academic research purposes, including the use of Boolean operators.

(EbscoHost Research databases: Business Source Premier, Master File Premier, Academic Search Premier, Health Source, Medline CREDO (Reference <u>http://www.xreferplus.com</u>,) Selected title in Oxford Journals online in full text <u>http://www.oxfordjournals.org/</u>, Full-text electronic, searchable collection of full-text electronic South African Journals <u>http://www.sabinet.co.za</u>, 1100 Springer Journals: Full text <u>http://www.springerlink.com/home/main.mpx</u>, American Educational Research Association Journals<u>http://www.nisc.co.za</u>,

Open and free access databases

Archives of journal articles <u>http://www.jstor.org</u>, Directory of Open Access Journals: <u>http://www.doaj.org</u> Database of articles harvested from Open Access sites <u>http://www.oaister.org</u>, American Educational Research Association: <u>http://aera-crasu.edu/ejournals/</u>, Encyclopedia of Life Support Systems: The Largest On-line Encyclopedia A virtual dynamic library equivalent to 200 volumes: <u>http://www.eolss.net/</u>, Provides a simple way to broadly search for scholarly literature: <u>http://scholar.google.com/</u>

Health InterNetwork Access to Research Initiative

Free access to health information: http://www.who.int/hinari/en/, AGORAAccess to Global Online Research in Agriculture, http://www.aginternetwork.org/en/_Online Access to Research in the Environment (OARE), an international public-private consortium coordinated by the United Nations Environment Programme (UNEP)... http://www.oaresciences.org/en/_BioMed Central: Publisher of more than 160 peer-reviewed open access journals http://www.biomedcentral.com/_PubMed Central (PMC) is the U.S. National Institutes of Health (NIH free digital archive of biomedical and life sciences journal literature http://www.pubmedcentral.nih.gov/, World Bank: WDI and GDF Online http://devdata.worldbank.org/elibrary/

It is from this background that this study was conducted to investigate the information seeking behaviour of students in order to better determine ways and means of integrating the program into the university curriculum. Since most students do not attend information literacy training, the research intended to find reasons for poor attendance of information literacy classes at UNAM. The library spends millions of dollars in subscribing to scholarly electronic journals, purchasing books, and CD ROM which are not fully utilized. With the great resources available, librarians want them to be used so that the university can produce useful and productive graduates. Students should not only rely on "Google.com" as their only research tool as these sources are not all peer reviewed and students do not know that "part of the information on the internet is not academic or research related; and with addresses changing frequently and sites disappearing it is unreliable" (Hart, 2001).

Problem statement

Students of the University of Namibia lack the skills to search and use information optimally for lifelong learning. They have most of the resources at their disposal with rich information,

but they do not know how to use them. They seem to prefer to use the internet mainly for Facebook or social networking instead of using it for scholarly purposes. This has been observed from the way 3^{rd} and 4^{th} year students search for information in the library. Students in their 3^{rd} and 4^{th} years of study may not know where the periodical section is in the library, for example. Furthermore, even though the library offers an information literacy programme outlined in 1.2 above, librarians are faced with the challenge of few students attending the programme.

Purpose and objectives

The purpose of the study was to determine the information seeking behaviour of students of the University of Namibia in order to determine ways of improving the Information Literacy programme at the University of Namibia Library. The study aims at achieving the following specifically:

To assess students information skills.

To find out why students do not attend the information literacy training provided by the library.

- 3. To determine the effectiveness of the program for information literacy offered by the library.
- 4. To find out what methods are used by librarians to teach information literacy.
- 5. To explore the views of students and staff towards the integration of the information literacy program into the university curriculum.
- 6. To suggest what needs to be done to improve information literacy at the University of Namibia.

The assumptions of this study are that: Students do not use computers optimally for lifelong learning; student's use of computers in research will lead to better performances and assist them to become lifelong learners; and students lack the necessary skills to be able to find information in both print and electronic resources.

Review of literature

Information literacy was first mentioned in 1974 by Paul Zurkowski, president of the Information Industry Association, in a proposal submitted to the National Commission on Libraries and Information Science (NCLIS) in the United State of America (USA). The proposal recommended that a national program be established to achieve universal information literacy within the next decade. People need to be trained in the application of information resources for them to become information literate (Eisenberg, Lowe, & Spitzer, 2004). Burchinal (1976) added that to be information needed for problem-solving and decision–making efficiently and effectively.

During the same year of 1976, Owens (1976) contributed by stating that beyond information literacy for greater work effectiveness and efficiency, information literacy is needed to guarantee the survival of democratic institutions. All men are created equal but voters with information resources are in a position to make more intelligent decisions than citizens who are information illiterates. In 1989, the American Library Association Presidential Committee on Information literacy came up with the definition of information literacy in terms of requisite skills: "to be information literate, a person must be able to locate, evaluate, and use effectively the needed information" (Eisenberg, Lowe, & Spitzer, 2004).

Several countries have developed standards for teaching and even assessing information skills. Information Literacy Competency Standards for Higher Education document was issued by the Association of College and Research Libraries (ACRL 2000). The document describes five standards, 22 performances indicators and 87 outcome measures. The ACRL Information Literacy Competency Standards for higher education (ACRL, 2000) have been adopted for use in a number of countries such as Mexico, Spain, Australia, Europe, and South Africa. (Marten & Rader, 2006). The five standards are:

- The information literate student determines the nature and extent of the information needed.
- The information literate student assesses needed information effectively and efficiently.
- The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
- The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.
- The information –literate student understands many of the economic, legal and social issues surrounding the use of information, and accesses and uses information ethically and legally.

With those standards librarians and faculty can collaborate to integrate the teaching of information skills into the undergraduate and graduate curricular of the university. Faculty and librarians can plan teaching modules together, both for classroom use and online. Then the criteria for outcome measurements provided in the ACRL document can be used to measure whether or not the students have learned the appropriate information skills (Marten & Rader, 2006). Information literacy education in university settings has been introduced in countries such as Australia, China, South Africa, England, Sweden, Botswana and Mexico to enable students to assume responsibility for their own learning and prepare themselves for the information society. The California State Universities issued a report entitled information competence in the CSU which recommends policy guidelines for the effective use of learning resources and instructional technology. Among many possibilities considered are co-operative ventures between the universities, community colleges, primary and secondary schools to help all students become information literate and encourage the close collaboration between faculty and librarians (Marten & Rader, 2006).

The Namibian vision 2030 theme 7 perceives knowledge as the key determinant in human development in the twenty-first century. The current wave which has been described as a third wave has been characterized by many terms such as Information Revolution, the Knowledge Economy or the Global Village. This wave is sweeping the globe and has been ignited by the developments in Information and Communication Technology (ICT), and also by developments in biotechnology, health, medicine, new materials and other traditional fields. The vision 2030 document observes that "sustained economic growth is largely enabled by increased productivity of labour, which in turn is enabled by the development of the knowledge base or intellectual capital of a nation"(Namibia Office of the President, 2002).

Namibia seeks to construct a vision that embodies the development of a truly knowledge based economy. The vision seeks to transform the country of Namibia into a knowledge society, with a high living standard derived from an economy based on knowledge,

industries and innovation and the creation of new technologies driven by a responsive and flexible education and training system. All these innovations are expected to be supported by an enabling regulatory and institutional framework (Namibia Office of the President, 2002).

The present situation of information literacy in Namibia

The Namibian Ministry of Education had recently implemented Basic Information Science Syllabus for the grade 8 – 10. The aim is to:

- Foster effective communication through speech and writing.
- Develop competence in language communication skills.
- Develop critical thinking and problem solving attitudes
- Develop self-confidence, self-learning through classroom tasks and assignments.
- Enhance a lifelong learning attitude through reading.
- Provide awareness of HIV and AIDS, democratic principles, population growth, ecological sustainability, ICT and improvement of quality of life for all Namibians.
- Enhance integration of ICT in teaching and learning.
- Promote a reading culture in our learners.

Information is a major requirement for development, whether the development is personal, social, spiritual, economic, political or educational. Learners must be encouraged to generate their own relevant information in order to facilitate the production of the country's own publications. Information skills form the foundation for all learning and development; it is an indispensable element of learner-centered education; and the key to a life-long attitude of learning and personal growth (National Institute for Educational Development, 2007).

Students' information seeking behaviour and learning style

From the moment of our birth we are prompted by our environment and our motivations to seek out information that will help us meet our needs (Case, 2002). A need is defined as an inner motivational state that brings about thought and action. Others inner states may include for example; wanting, believing, doubting, fearing, or expecting (Case, 2002). Students begin to perceive information needs that make them search for information. According to Roberts and Bhatt (2007) students are highly predisposed to search for information through sources that have worked for them in the past, usually Google and other sources on the free web. Students are not aware of online databases and electronic book collections that contain information they might need. Students are said to have different information needs and they need to use appropriate sources to meet those needs. Eisenberg, Lowe, and Spitzer (2004) stated that Information literate students are competent, independent learners, they know their information needs and actively engage in the world of ideas. They manage technology tools to access information and to communicate. They operate comfortably in situations where there are multiple answers, as well as those with no answers. When teaching information literacy, students must be taught to sort, to discriminate, to select, and to analyze the array of messages that are presented.

All students do not learn the same way. They have different learning styles at different stages of their cognitive development. Therefore a multitude of approaches in teaching information skills are needed to address these different learning styles (Burge & Snow, 2000). As identified by Fleming & Mills (1992) there are four basic types of learners; visual learners who prefer images, including charts and diagrams; oral / auditory learners who

prefer heard information, including lecturers, conversation, and online chats; read / write learners who prefer text as both input (reading) and output (writing); and kinesthetic learners who prefer to learn by doing and by relating subject's to concrete examples. As Information literacy is a core skill that is important for all students, librarians and faculty need to provide instruction that reaches all types of learner.

Effects of teaching information skills

Accredited agencies in the USA have recognized the importance of information literacy in the curricula of colleges and universities and the important role libraries should assume in the teaching-learning environment, by including appropriate criteria for outcome measures with regards to information literacy in the accreditation requirements. The need to find, organize, assess and apply information to problem solving is an international concern and it is advisable that librarians and educators cooperate and share their expertise and experiences. To prepare both librarians and teachers for educating students in the information age, the following should be considered (Marten & Rader, 2006):

- Information changes continually.
- Learning and teaching must be interactive and recognize diversity in learning styles.
- Teaching and training must be a process of facilitating and sharing rather than dispensing information.
- Information work is becoming more and more competitive.
- Librarians and teachers must market themselves aggressively as information experts.
- Information is a commodity and must be handled like a valuable product.
- Teachers and trainers must be committed to learning everyday.
- Effective teaching utilizes learning outcomes and behavioural goals.
- Good teaching is based on student's needs.
- Information skills must be integrated in the curriculum and taught incrementally.
- Teachers and librarians must work with accrediting and education agencies and curriculum planners to ensure that skills become a required component of the curriculum.

Marten and Rader (2006) further stated that academic librarians around the globe have been actively involved in designing library and information skills instructional programs for the students. IFLA (International Federation of Library Associations), which meets in a different country each year, has focused its concerns on the teaching of library and information skills through the establishment of a Roundtable on User Instruction, recently changed to the User Instruction Section.

At the University of Botswana librarians have integrated the information skills instruction throughout the curriculum. In South Africa information literacy instruction has been used as part of the preparation for lifelong learning. Other countries / continents like China, Australia New Zealand, UK, Germany, Netherlands, Sweden, Canada, Mexico, and South America have supported and encouraged the teaching of library and information skills in academic institutions, Some of the countries have been actively involved in developing theories and programmes related to user instruction and information literacy (Marten & Rader, 2006, Kuhlthau, 2004).

Teaching information literacy is also one of the approaches used by academic librarians to market the library resources and activities to the user's community. Helinsky (2008) stated that the library needs to be marketed for the people to know its activities that they

exist, that they contribute to the development of the country just like other industries. Even though students might have basic computer access skills before they come to the library, an information seeker in a digital library environment needs a lot of initial training and constant hand-holding (Du Toit & Selematsela, 2006). Students need to learn to look for the scope of the resources available to them, and also to understand the differences between web-based databases and the public web. Students also need to be trained on the requisite equipment needed for accessing digital collections (Kajinara & Liu, 2001).

Research methodology

The study used both quantitative and qualitative methods of data collection. Selfadministered structured questionnaires were used as techniques for collecting of data. Questionnaires were distributed to students, librarians and academic lecturers at four campuses of the University of Namibia. Focus group interviews were also conducted with the librarians to give in depth detailed information on information literacy programs. Descriptive statistics and inferential statistics were used to organize, summarize and visualize quantitative data. Qualitative data was generated by an in-depth inquiry that gives us detailed descriptions. It focused on meaning, experience and understanding, and also gave the researcher an opportunity to interact with the individuals or groups whose experiences the researcher wanted to understand.

Sampling

The student population of the University of Namibia is estimated at 12 000 for 2010, academic staff are estimated at 558. The researcher studied a representative sample because she could not study the whole population of the university students and staff. A sample size of ninety-five including students, librarians, and academic lecturers was used to collect data from the four campuses of the university. The study used accidental non-probability sampling and snowball sampling techniques.

The sample was selected to ensure that each faculty was represented in the study. The University is comprised of nine faculties [(School of Medicine (main campus), Nursing (Oshakati campus), Science (main campus), Economics and Management (main campus), Humanities and Social Sciences (main campus), Law (main campus), Engineering, and Information Technologies (Ongwediva campus), Education (main campus), and the Faculty of Agriculture and Natural Sciences at (Ogongo campus)]. Using accidental sampling techniques, the researcher went to each specific faculty to distribute the questionnaires to students and academics that turned up for classes on the days of the data collection.

Snowball sampling technique was used in some faculties whereby the researcher approached students and gave them questionnaires to give to other students in their faculty who were willing to take part in the study. The sampling was used because it was hard for the researcher to find subjects from certain specific faculties since the researcher did not find any academic staff from the faculties to provide her with the time table of students. Ultimately she met two students from those faculties that were willing to identify other students who could take part in the study.

Findings and discussion

Students, librarians, and members of academic staff were asked to complete a questionnaire and a focus group interview was carried out with three members of the library staff who are involved in the training of students in information literacy skills. This research organized the findings and data around the research objectives.

Characteristics of respondents

The profile of respondents is summarized by gender, qualifications of academic staff and the centre from which they came.

The gender distribution of members of staff who participated in the research is shown in the table below:

Table 1. Gender distribution member of academic staff respondents

male	female
11	9

The qualifications of members of staff varied from two staff members with first Bachelor's or undergraduate degree, ten members with Masters degrees, and eight members of staff with PhDs

A total of twenty members of staff and fifty-one students from six faculties participated in the research. The proposed sample size of 95 could not be reached since some participants failed to return the questionnaires. Only seventy-one responses out of the actual sample size of 95 have returned questionnaires.

Table 2. Gender distribution of students respondents

Male students	Female students
20	31

Students' information seeking behaviour

The findings from the questionnaires distributed showed that more than 50% of the respondents indicated that they use the text book and lecture notes as a source of information for assignments. Twenty-nine percent of the students indicated that they use both print and electronic sources for assignments. When the students were asked to state the other sources of information which they use for information the majority of them stated that they use the internet. This was true for both the students who attended the information literacy and for those who did not attend.

Causes of non-attendance of Information Literacy programmes offered by the library

Five percent of the students indicated that they were not able to attend the training because they were not aware of the time when the training took place. In an interview with the library staff it was also indicated that the staff relied on students to come to the library for training during their course periods. Another reason given for not attending the training was that students believed that the program is another course module that they need to register for, and in fact they could not register for more than they already have. It appears there is no direct communication between the students and the course facilitator where the former can motivate the students by stressing the advantages of attending the course. Details of the training programmes must be communicated to the learners properly so that they are aware of the days of the training. Only 38% of students had attended the training for information literacy. The remaining 62% had not attended the information literacy training. The majority of those learners who attended the information literacy training found the training very useful.

Methods used by librarians to teach information literacy

The training methods used by library staff are the PowerPoint presentation and lecture methods. On occasion students take the initiative and approach the library staff requesting training. Those students who take the initiative are those students who may have heard of the training either informally or came across a training programme accidentally. The students are taught about ways of accessing different databases and about different sources of information available in the library.

Students and Staff Support for integration of the information literacy program into the curriculum.

Twenty percent of the students indicated unwillingness to attend the information literacy training. The majority of students on the contrary expressed appreciation that the introduction of information literacy would benefit students in their respective courses.

When the students were asked to elaborate on the reasons why they did not want information literacy to be taught in the university many of them expressed concern that the course might take up time needed for their regular curriculum resulting in their being overburdened with work. They also feared an increase in tuition fees.

Eighteen percent of the members of staff were against the integration of information literacy into the university curriculum and 82% were in favour of the integration of information literacy into the curriculum. The members of staff who were in favour of the integration of information literacy into the university curriculum offered the following reasons:

- Students fail to access journal articles on the various databases.
- They think that students lack the skills required to find information.

They feel that the level of argument and the way students approach their work lacks the depth of insight which comes through study and researching widely making use of various sources of information.

Other staff members felt that students are generally not using the available information. Members of staff also advocated for the use of workshops to teach information literacy and other strategies such as production of pamphlets and manuals.

Degree of effectiveness of information literacy programme offered by the University

The responses of students to the questionnaire indicated that the literacy training programme is quite effective. However, the interview with the library academic staff showed that there is no definite curriculum in place that information literacy training was expected to follow. The interview showed that there is a partially developed programme which reflects objectives, suggests some approaches to be used when training, but there is lack of a detailed course outline and of assessment criteria. The responses from the academic staff show that the current information literacy classes may not be very effective in helping students to access information on the various databases to which the university library subscribes. However, students who attend the training workshop seem to have benefitted significantly from the training.

Ways forward to improve the information literacy at the University of Namibia Members of staff suggested the use of workshops in order to raise the level of information literacy among the students. When the students were asked the measures that can be taken to improve information literacy at the university the majority of them suggested that more training must be conducted and students must be informed properly about these training sessions.

Most of the students showed an imprecise appreciation of the term information literacy. Some of the responses students gave to the question which required them to explain what information literacy are listed below:

- Is the ability to be able to write his or her own information?
- Information that is given to educate, inform, persuade someone on a topic that is being discussed.

Some of the more precise definitions that came from students were:

- It is a way of teaching people how to access information whenever necessary.
- How to get hold of academic information and how to make use of it for academic purposes.

It was interesting to note that the definition by students did not link information literacy to the concept of lifelong learning.

When the library focus group was asked to indicate the size of the group that attends training, it emerged the group can be as big as thirty-five students. The average group is normally twenty students, and in some instances it was also revealed that students had to share computers, a factor that may affect motivation of students and prevent them from attending the training sessions.

When students were asked if they were aware of the library electronic resources 24% indicated that they were aware of these resources and the other 76% were not aware of these resources. Among the students who were aware of the electronic resources 10% had attended library training conducted for their faculty. 10% of students had learnt about the electronic resources through their peers. 4% had become aware of the electronic resources through individual training by librarians.

The data seems to indicate that students appreciate the integration of information literacy into the university curriculum. The majority of the students indicated that they were able to use the internet to read newspapers, research assignments and to search for information. What seems to be lacking is the knowledge about specific websites where students can access academic information. Some of the students indicated that they access the internet at home, at the internet café and on their cell phones. Some of the issues raised by students in the study are inadequate time allocated to them on the internet to do research, inadequate computers, the internet that is slow, lack of relevant books, an internet that is frequently out of order.

The students were asked if they were aware of the wireless internet room in the library and 20% were aware of the wireless interconnection room and 47% indicated that they were not aware of this room and the rest abstained from answering the question. The lack of knowledge of the internet wireless connection may be linked to lack of laptop computers on the part of students.

The research set out to find out the way information literacy was being conducted at the University of Namibia. The findings of the research seem to suggest that students are not developing information literacy skills to develop life-long learning. This is supported by tentative data obtained from the teaching staff. The data obtained from the focus group interviews seems to suggest that the majority of learners have the necessary skills to use the internet. Actually most of the students indicated that they have the ability to use the internet on their cell phones, computers at home and in the various university centres. However, the majority of these learners were not aware of the existence of a number of databases which could furnish information for study and for assignments.

The findings also seem to suggest that many of the students were not aware of the university electronic sources. The majority of students are in favor of the integration of information literacy into the university curriculum. The academic staffs also share the sentiments that information literacy must be integrated into the university curriculum.

Conclusions and recommendations

The conclusions that may be drawn from the findings are that many students are missing information literacy classes because they are not aware of them and those who are aware believe that the programme is another course module that they need to register for, and in fact they cannot register for more than they already have. It appears there is no direct communication between the students and the course facilitator where the former can motivate the students by stressing the advantages of attending the course. Evidence also seems to suggest that the few students who attended the classes seemed to find these classes very beneficial. The research seems to point out that the training is done without a properly written curriculum which may compromise effectiveness.

To address this situation, the study recommends a more rigorous approach to the information literacy programme. Firstly, the University library staff have to come up with a well written course outline for information literacy training among the university students. The course outline should state the objectives, the contents, methods of instruction and forms of assessment for the course. Secondly, it is further recommended that students be informed about the objectives of the training in advance as a way of seeking to motivate them to attend the training sessions. Thirdly, the information literacy training course must be carefully designed to cater for the individual needs of different students. Some students have prior exposure to the internet, while others do have this background information. There are students who prefer to work on their own, whilst others prefer to work in small groups. There are also those students who feel too shy to pose questions in a big group, but who may be willing to participate actively in an individual training session. All these have to be taken into account. Fourthly, materials on information literacy must also be produced in a way which is easy to understand and disseminated in order to help those students who prefer to work on their own to access information. Fifthly, it is imperative that the University of Namibia library design an on-line tutorial which can be used by those students who are already computer literate and who prefer to work on their own. Sixthly, pamphlets, posters and handouts may also be designed in order to help students know the vital sources of information. These can mounted in the different faculties so that students become familiar with the critical websites as well as in the library. Last but not least, the library staff must ensure that the size of each group undergoing training does not exceed the number of computers available. Asking students to share computers may discourage them from attending training sessions. It is also important to ensure that the size of the group being trained is small to allow students who may not be familiar with

the use of internet to receive adequate assistance. And more importantly as suggested by participants librarians should conduct more training to ensure that resources that the library has invested in are being utilized to develop the knowledgeable society.

There is still room for further research to find out how information literacy training may be made relevant and meaningful to students. Research may for example be carried out at individual faculty level and it is hoped that future research of that nature may yield more valuable information.

References

Association of Colleges and Research Libraries (ACRL), (2000). Information Literacy standard for higher education. Retrieved August 12, 2010, from the American Libraries Association Website: www.ala.org/content/navigationmenu/ACRL/standards_and_guidelines/standards_and_guidelines_bytopic.htm.

Babbie, E. (2004). The practice of social research. (10th ed.). London: Thomson.

- Case, D.O. (2002). Looking for Information. New York: Academic Press.
- Burchinal, L.G. (1976). Copyright impact of future technology. Journal of Chemical Information and Computer Science, 16 (2), 70-71. Retrieved May 19, 2010, from <u>http://pubs.acs.org/doi/pdf/10.1021/ci60006a005.</u>
- Burge, E., & Snow, J. (2000). Essential relationships between learners and librarians, *LIBRI: International Journal of Libraries and Information Services*, 1, 25-34. Retrieved July 19, 2010, from: <u>http://www.sciencedirect.com.oasis.unisa.ac.az</u>.
- Cooney, M., & Hiris, L. (2004). Integrating Information literacy and its assessment into graduate business course: A collaborative framework. *Research Strategies Journal*, 19, 213 232. Retrieved May 21, 2010, from: <u>http://www.sciencedirect.com.oasis.unisa.ac.az</u>.
- Du Toit, A.S.A., & Selematsela, D.N.S. (2006). Competency profile for Librarians teaching information literacy. South African Journal of Libraries & Information Science, 73 (2): 119-129. Retrieved May 21, 2010, from: <u>http://www.sciencedirect.com.oasis.unisa.ac.az.</u>
- Eisenberg, M.B, Lowe, C.A., & Spitzer, K.L. (2004). Informationliteracy: Essential skills for the information age. London: Libraries unlimited.
- Feather, J., & Sturges, P. (2003). International Encyclopaedia of Information and Library Science. London: Routledge.
- Fleming, N., & Mills, C. 1992. Helping students understand how they learn. *Teacher Professional.* Retrieved July 19, 2010, from: <u>http://www.sciencedirect.com.oasis.unisa.ac.az</u>.
- Galvin, J. (2005). Alternative Strategies for promoting information Literacy. The Journal of Academic Librarianship, 31 (4), 352 – 357. Retrieved May 21, 2010, from: <u>http://www.sciencedirect.com.</u> <u>oasis.unisa.ac.az</u>.

Hart, C. (2001). Doing a literature Search, London: SAGE Publication.

- Helinsky, Z. (2008). A short-cut to marketing the library. Oxford: Chandos publishing.
- James, H, & Schumacher, S. (2006). Research in education evidence based inquiry, New York: Pearson Education International.
- Kajinara, H.C.B., & Liu, M. (2001). The impact of the Internet: increasing the reference librarians's role as teacher. The Reference Librarian, 74: 13-36.
- Kuhlthau, C.C. (2004). Seeking Meaning: A process approach to Library and Information Relevant, London: Libraries unlimited.
- Marten, A., & Rader, H. (2006). Information IT literacy: Enabling learning in the 21st century, London: Facet.
- Namibia Office of the President. (2002). *Namibia Vision 2030 Windhoek*: National Planning Commission. National Institute for Educational Development (NIED). (2007). Basic Information Science phase Syllabus Grade 8 – 10. Okahandja: Ministry of Education.

Owens, M.R. (1976). State, government and libraries. Library Journal, 101(1), 27.

- Roberts, J. & Bhatt, J. (2007). Innovative approaches to information literacy instruction for engineering undergraduates at Drexel University. European Journal of Engineering Education, 32 (3): 243-251. Retrieved July 19,2010, from: <u>http://www.andf.co.uk/journals</u>.
- Spackman, A., & Camacho, L. (2009). Rendering information literacy academic relevant: a case based pedagogy. *The Journal of Academic Librarianship*, 35 (6), 548 554. Retrieved May 21, 2010, from: <u>http://www.sciencedirect.com.oasis.unisa.ac.az</u>.
- University of South Africa: Department of Library and Information Science. (2000). Research methods in Information Science: Only study guide for HINKME-L. Pretoria: University of South Africa.

University of South Africa: Department of Library and Information Science. (2000). Research methods in the Social Science: Only study guide for RSC201 – H, Pretoria: University of South Africa. Warnken, P. (2004). Managing technology: The Impact of technology on information literacy Education

Warnken, P. (2004). Managing technology: The Impact of technology on information literacy Education in Libraries. The Journal of Academic Librarianship, 30 (2), 151 – 156. Retrieved May 21, 2010, from: <u>http://www.sciencedirect.com.oasis.unisa.ac.az</u>.

Welman, C, Kruger, F., & Mitchel, B. (2005). Research Methodology. South Africa: Oxford University Press.

Woolfolk, A. (2010). Educational Psychology. Ohio: Pearson International.