Abstract: Education is an essential component of any profession. The process of education is mainly based on the extent of information seeking. All over the world, undergraduates use various information seeking methods to obtain academic related information. There may be variations of the course they follow, the method of study and the impact on academic success. General objective was to describe information seeking methods used by the undergraduates of University of Sri Jayewardenepura for their academic studies. Specific objectives were to identify the extent of use, factors affecting on selection and the commonly used study method. A descriptive study was carried out at the University of Sri Jayewardenepura with a convenience sample of 200 undergraduates following Medical, Paramedical, Management and Arts degrees. Self administered questionnaire was used to collect data. Voluntary participation was invited and the informed consent was obtained prior to data collection. Data was analyzed using SPSS 15.0 software. Among participants, 75% were females. Majority (83%) of undergraduates read lecture notes daily. Most of them were medical undergraduates and their purpose was to understand the lesson. Among all, 12% borrowed text books weekly. Females who borrowed books were higher than that of males. Ten percent of the sample never borrowed text books. As stated by 54% of students, the main reason for reading text books was to get additional information. Students’ internet access was nearly 5 hours per week for academic purposes. Accessing the internet was viewed as academically not important by 23%. Although students said that the lecture note was insufficient, it was found, that lecture note was the commonest information seeking method among them.

Key words: undergraduates, text books, internet, lecture notes, academic goals.

Chapter 2

Literature review

There have been similar studies carried out to determine the methods used by the undergraduates for their academic performances. Library is an important information seeking tool. A study carried out at 3 universities in Sweden, about the impact on university libraries to change information seeking behavior among academic researches, showed that they use ‘Google search’ for everything and they were confident that they could manage their academic research on their own and they had very little contact with the libraries (Haglund & Perolsson 2008, p.51) [6]. A study carried out in India at the Medical college of Kolkata, showed the following results. Among the library users, the majority were visiting the library for preparations of examinations where as few students use the library since they do not have personal text books. Among the teachers the majority were visiting the library for preparation for lectures and seminars (Chatterjee 2006, p.461) [2]. There have been studies conducted about undergraduates’ attitudes towards educational use of the internet. Tella (2007, p.452) [9] in the University of Botswana conducted a research with undergraduates about use of the internet and the implication on academic performances. 434 students were given a questionnaire to fill. It was revealed that majority of the respondents access the internet 1-5 hours per week with the purpose of obtaining course related information. According to Rouet (2009, p.382) [9] undergraduates are satisfied with web based practices rather than reading paper materials. This study showed that the students are less effortful to read books.

A comparative study has been done about the effects of lecture notes on undergraduates study in the Dublin College University in Ireland, indicated that the traditional lecture note method is not successful when compared to conducting a lecture with slide show plus guided notes. Students are more satisfied when they are given a guided note at the lectures (Austin et al. 2004, p.230). [1] Another study carried out in the College of Human Medicine in the United States of America to find the relationship between the study aid use and the exam performances of 2nd year medical students. The study results showed that majority of students use summaries of notes made by themselves as study aids. The students were given a questionnaire to get their overall opinion about efficacy of study materials. It appears that the study aids play an important role in students’ learning and exam preparation (Skleight & Mavis 2006, p.292) [8].

Neri (2007, p.98) [10] conducted a research with 300 nursing students from 5 nursing schools in Northern Minando to study learning styles and study skills among them. Some students were in the 3rd year and some were in 4th year. The students were requested to answer a questionnaire as honestly as possible. The data showed that nursing students were good at note taking during lectures. This study concludes that nursing students have good study skills, text books reading skills and test preparation.

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Liao, Finn and Lee (2007, p.17) [7] conducted a research to find information seeking behavior of International undergraduates vs American undergraduates. Results of this study demonstrated that the impact of language and communication barriers has reduced usage of library facilities by the International undergraduates. According to study results the factors affecting to seek information through text books were easiness of use, editor’s reputation, providing accurate factors, convenience of location of the library, time of availability and so on.

Usun (2003, p.582) [13] conducted a research in the Canakkale Mart University regarding undergraduates’ attitudes towards educational use of the internet. The study results showed that the undergraduates are aware of the importance of the internet and they agree that the internet is a practical and enjoyable tool they can use to seek information. The students say that the internet make learning fun and internet using was easier than using the library. It further revealed that the internet was an educational tool that can be used to replace traditional classroom lectures.

A study done by Farrell and Jessica (2009, p.310) [3] students’ information seeking behavior during group projects reveal that the students usually do not use electronic media and resources such as web sites, electronic journals and e-mails since they have no positive perception towards that.

Another study was done with 52 high school students about students’ notes and their relation to comprehension and recall of lecture information. At the end of the study, the results showed the note taking expands the working memory of students and note taking facilitates recall and comprehension of lecture content. (Oyzen& Olmos 2009, p.98) [1]1

Chapter 3

Methodology

3.1 Study setting:

Study setting was University of Sri Jayewardenepura, Gangodawila, Nugegoda which consists of 5 different faculties (Medical Sciences, Management Studies and Commerce, Arts, Applied Science, Postgraduate Studies). This study was conducted only by involving the undergraduates of Medical, Paramedical, Management and Arts.

3.2 Study population:

The study population of this study consisted of all 3rd year undergraduates of the Faculty of Medical Sciences, Faculty of Arts, Faculty of Management Studies and Commerce. The population was approximately 2000, which consisted of 150 Medical undergraduates, 75 Paramedical undergraduates (undergraduates of B.Sc. Nursing, B.Pharm, B.Mls), 1000 Arts undergraduates and 800 Management undergraduates.

3.2.1 Inclusion criteria & Exclusion criteria:

Undergraduates who study in their 3rd academic year, who follow an internal degree at the Faculty of Medical Sciences/ Faculty of Management Studies and Commerce/ Faculty of Arts and the students who can read either English or Sinhala Language.

Student in other Faculties were excluded. (Faculty of Applied Science/ postgraduates)

3.3 Study design:

Descriptive study

3.4 Sampling

3.4.1 Sampling Technique:

Convenience sampling method was used to get the required number of participants (200). Fifty undergraduate students from each category (Medical/ Paramedical, Management, Arts) were selected by this method.

3.4.2 Sample size:

Sample size was 200 which consisted of 50 Medical students, 50 Paramedical students, 50 Management students and 50 Arts students.

3.5 Study instrument:

Questionnaire was used as the study instrument. There were 13 close ended questions. It was a self developed self administered questionnaire. The questions were based on the 3 specific objectives of the study. Questionnaire was developed, taking the most relevant and essential variables into account. (The questionnaire is annexed with the final report)

3.6 Data collection:

Data collection was done by using the pre designed questionnaire. Pilot test was done at the University premises during August 2010. Two students from each category (Medical, Paramedical, Arts and Management) who were having all inclusion criteria were given the questionnaire to assess the content and the clarity of the questionnaire. Numbers of questions were reduced as a result of the pilot study. It was really helpful for the investigator to identify the feasibility, language accuracy and easiness of comprehension of the questionnaire. After getting the ethical approval, data collection was started on September 2010 and continued throughout the month.

3.7 Data analysis:

3.7.1 Data coding and entry:

Data were coded before enter them on to the Excel sheet. Data were entered on a work sheet in “Microsoft Excel 2007” spread sheet software. Data of the same category of students entered together. There were some missing values on the sheet since some students had not marked some answers properly. From the excel sheet it was then exported to “SPSS 15.0” software and analyzed.
3.7.2 Analysis:
Uni-variate as well as bi-variate analysis were done. Cross tabulation was applied to some variables such as cross tabulation with undergraduates (Medical/ Paramedical, Management, Arts) and text books use, undergraduates and internet use, undergraduates and lecture notes use. Pearsons Chi-square testing was applied. Frequencies and percentages were also taken. Tables were prepared from the results obtained from frequency distribution and cross tabulation.

3.8 Ethical consideration:
To get the ethical approval, the research proposal was submitted to the Ethical Review Committee of the Faculty of Medical Sciences of University of Sri Jayewardenepura. The ethical approval was granted on 29.07.2010 (Approval Number: Nursing 2010/04). Confidentiality is maintained in the information obtained by participants. None of the personal data were collected. Only few general details were obtained (e.g. Faculty, gender, degree course, academic year, etc). The study was conducted in a way that the students not get delayed or missed their academic studies by any chance. A volunteer consent form was given to the participants prior to data collection. Then they came to know about the study well.

Chapter 4

Results and discussion
There were 75% female and 25% male undergraduates in the study sample. All of them were in their 3rd academic year. Mean value of number of subjects they study were 6. According to study results, weekly borrowing text books was significantly high (p=0.000) in all faculties. Arts undergraduates (43%) were the highest among all who borrowed text books weekly. Some undergraduates of Management (22%) and Medical (19%) never borrowed library text books. Among the library users most were females. Most of the Medical undergraduates were having personal text books. So they did not frequently borrow books.

Although the worldwide study results showed that utilization of library text books was less among university undergraduates, 72% of the all participants of this study said that they can manage their academic work by using text books. There were lots of factors contributing for them to select a good information seeking method. The study revealed that 54% of undergraduates used text books since their lecture note was insufficient and 31% said that they used text books when they need to find answers for tutorials. According to Ethelene Whitemire (2001)[14] who conducted a research with 1046 undergraduates regarding factors that influence undergraduates’ academic library use revealed that the students use the library text books when they have writing assignments and when they need to improve the ability of critical thinking. He says that there is a strong relationship between reading books and active learning. There was a significant difference in sample sizes in the two studies but there was no difference between results.

| Table 4.1: Factors associated with the undergraduates to use text books. (n=195) |
| Factors affecting to read text books | Number of undergraduates | *Percentage of entire sample % |
| Lecture note is insufficient | 105 | 53.8 |
| To prepare for tutorials | 60 | 30.7 |
| When couldn’t complete the lecture note | 17 | 8.7 |
| Other reasons | 13 | 6.6 |
| Total | 195 | 100 |

| Table 4.2: Factors associated with the undergraduates to access the internet. (n=198) |
| Factors affecting to access internet | Number of undergraduates | *Percentage of the entire sample % |
| Find information for assignments | 67 | 33.8 |
| Find research articles | 26 | 13.1 |
| Find subject related information | 87 | 43.9 |
| Other purposes | 18 | 9.0 |
| Total | 198 | 100 |
With the advancement of new technology, the internet has become a popular information seeking tool. There was a significant effect associated with the faculty and the extent of internet use (p=0.002). Results of this study showed that 76% of all university undergraduates access the internet at least 5 hours per week for academic purposes (p=0.015). Among them most were Medical undergraduates.

Table 4.4: Time spent for internet access

<table>
<thead>
<tr>
<th>No. of hours</th>
<th>medical</th>
<th>paramedical</th>
<th>management</th>
<th>arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or less</td>
<td>85%</td>
<td>73%</td>
<td>78%</td>
<td>69%</td>
</tr>
<tr>
<td>5 - 10</td>
<td>2%</td>
<td>23%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>10 - 20</td>
<td>5%</td>
<td>4%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&gt;20</td>
<td>8%</td>
<td>0</td>
<td>2%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Usually they allocated time to search research articles and subject related information. They further used some websites to practice answering questions. Time spent to A comparative study has been done by Rouet (2009) [9] with 122 university undergraduates to assess student performance and satisfaction with web search and lecture notes. The results of that study showed the undergraduates were less effortful to read lecture notes when compared to web search.

When considering the usage of lecture notes, there was a significant effect associated with faculty and reading lecture note (p=0.008). Among the students of University of Sri Jayewardenepura, 78% of the 3rd year Medical undergraduates read their lecture notes daily. A study carried out by Olmoz and Oyzon (2009) [11] found that note taking expands the working memory of students. It further facilitates recall and comprehension of lecture content and it affects test scores of the students.

The factors affecting the undergraduates of University of Sri Jayewardenepura, to use their lecture notes were as a guide to refer text books (24%), to understand the lesson clearly (42%), to get a rough idea about the lesson (20%), and just to pass the exam (14%). A study has been done in a college of Human Medicine in United States of America regarding study skills and academic performance among 2nd year medical students. The results showed that the 77% medical students used a summary of their lecture notes as a study aid. A similar result found among the students of University of Sri Jayewardenepura, and 78% of the 3rd year Medical undergraduates read their lecture notes daily. 52% of the entire study sample was agreed to say that their lecture note was a good study tool that they used to reach their academic goals whereas 34% were disagree and 20% were strongly agree.

Even though many studies have been conducted to describe the information seeking behavior of the undergraduates, the results were almost similar with the results of the present study. It has not made significant differences although the methods of each study were different from each other.

Majority (83%) of undergraduates of University of Sri Jayewardenepura had selected the lecture note as the 1st choice. Overall results showed that the lecture note was the commonest information seeking method used by the undergraduates.
Chapter 5

Conclusions

According to this study, undergraduates of University of Sri Jayewardenepura borrowed textbook weekly. Most of them were Arts undergraduates. One tenth of the undergraduates never borrowed textbook from the library. Although the students prefer internet access, majority of them spent less than 5 hours per week to access the internet for academic purposes. It was identified that more than half of the university undergraduates read their lecture notes daily. Of them most were Medical undergraduates. Utilization of all the above resources (textbooks, internet, lecture notes) was higher among females than males. Through this research the investigator would recommend the following measures. Facilities of the university library should be improved. Add more subject related text books. Expand the area of study halls. Increase the available number of copies. Increase the available number of lending books. Majority of students access the internet less than 5 hours per week for their academic studies. Students should be given extra hours to access the internet for academic purposes. Extra hours should be scheduled for self-learning. Resources of the computer labs should be increased (e.g. Number of computers, conduct lectures about web searching.)

Although the students use other information seeking methods, most of them try to cover the subject area from their lecture note. Within the limited time allocated for a lecture, the whole area cannot be covered by the lecturer. Therefore the students have to seek for other study aids. Therefore the students should be encouraged to read recommended textbook and takedown notes during lectures.

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References