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**Title of Presentation**

Where and why university students choose to use computing facilities: report on a collaborative study at an Australian and United Kingdom university

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**Topic Area:**

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**Level (Beg, Int, Adv):**

Advanced

**Paper / Presentation Abstract** (not to exceed 250 words):

Students' learning experiences and expectations in higher education have been transformed across the world in recent years. A major driver has been the impact of information and communication technologies. These trends have occurred alongside the increased provision of computers in university environments and the improved technological skills on the part of students.

The rapid changes in technology suggest that within a few years, providing large numbers of computers may not be what students want or need. In order to plan for appropriate services and support, university departments need to develop a deeper understanding of where and why students use computing facilities.

At La Trobe University in Australia and Loughborough University in the UK, the main places students use computing facilities are the library, a faculty-provided computer lab, or a centralised computer lab provided by the University IT department. Library staff from both universities initiated a research project to gather data in this area.

The authors will report on the results of the survey which was conducted during 2005 at both institutions. The survey investigated where students chose to use computing facilities and the types of factors which influenced their decision such as opening hours, availability of technical support, wireless facilities, and the range of software applications available.

The authors will also report on the experience of conducting a collaborative research project across two hemispheres and will explore the differences and similarities experienced by the two universities in conducting the project. They will also explore the experience of collaborating with colleagues within their respective universities as without the involvement of the IT departments, the survey would not have been possible.

## **Introduction**

Students' learning experiences and expectations in higher education have been transformed across the world in recent years. A major driver has been the impact of information and communication technologies. More and more information is becoming available electronically with the large increase in electronic journal titles and the likely impending affect of electronic books. E-mail is perceived as an essential tool to support the learning process. Another major influence has been the provision of free electronic search engines such as 'Google'. Wireless technologies are also starting to have a major impact on student computer usage.

These trends have occurred alongside the increased provision of computers in university environments and the improved technological skills on the part of students when searching for information. It is no longer optional for students to have quick and easy access to a personal computer to support their learning; it has become an essential requirement of studying in a higher education environment.

At La Trobe University in Australia and Loughborough University in the UK, the main places students go to use a computer on campus are the Library, a faculty-provided computer lab, a centralised computer lab provided by the University IT / Computer services unit, or their hall of residence. To enable planning for appropriate support information and services, computer services departments, the library, and academic departments need to develop a deeper understanding of how students decide where to use a computer and what applications they use. Very little research has been done in this area, however a similar study (Lubans, 2005) was undertaken in the United States which concentrated on reasons for accessing computers in a United States university library.

This presentation reports on the experience of a joint small scale study by La Trobe and Loughborough universities to explore how students chose where to use a computer while on campus, and the results of that study. The project was jointly managed by the two universities. The project was not limited to IBM compatible computers; students who use Apple Macintosh computers in computer laboratories were able to participate in the survey.

## **Background**

This project grew out of the involvement of two librarians from Loughborough University Library and La Trobe University Library in the Continuing Professional Development and Workplace Learning Section of IFLA (International Federation of Library Associations and Institutions).

### ***La Trobe University***

La Trobe University (<http://www.latrobe.edu.au>) was the third university established in Victoria, Australia in 1967. It has grown to accommodate more than 20,000 students at its Bundoora campus and over 7,000 students at campuses throughout regional Victoria in Albury-Wodonga, Beechworth, Bendigo, Mildura, Mount Buller, and Shepparton. The regional campuses are linked to each other and to the main campus in Melbourne by various ICT facilities including video-conferencing, thereby promoting high quality teaching and research.

The main campus of La Trobe University in Melbourne has approximately 17,500 students and houses the main research and teaching faculties of the University including the Research and Development Park, a world renowned Library, multi-media facilities and a hospital including student medical services.

The University includes five faculties: Education, Health Sciences, Humanities and Social Sciences, Law and Management, and Science Technology and Engineering.

### ***Loughborough University***

Loughborough University (<http://www.lboro.ac.uk>) came into existence in 1966 when four Technical Colleges were merged. It is located on a single campus and with 165 hectares of land, is one of the biggest campuses in the United Kingdom.

Loughborough is located in the East Midlands region of England, approximately 100 miles north of London. There are over 12,000 full-time students based in three faculties: Engineering, Science and Social Sciences & Humanities. Within these three faculties are 24 academic departments and over 30 research centres. Loughborough University is a research intensive institution and has been placed among the top 10 universities in the UK in recently published league tables.

### **Aims and Objectives of the Research Project**

The study aimed to discover what factors influenced a student's choice of computer on campus. Objectives included:

- Exploring what factors influence students' choice of location when using a computer on campus
- Determining if a trend exists between a student's academic discipline and a preferred location when using a computer
- Identifying the computer applications used by students and whether this had any affect on their decision-making process
- Gathering data that can be used to facilitate planning for computer provision and support
- Exploring differences and similarities experienced by the two Universities in conducting the project.

The anticipated outcomes of the project were to:

- Foster collaboration between Computer Services/ICT and Libraries
- Foster collaboration between two universities in different countries
- Provide an opportunity for comparing and contrasting the use of computers by university students in an Australian and a UK university environment.

### **Project Team and Management**

The project team was made up of staff from the Bundoora Campus Library at La Trobe University, in conjunction with the Information and Communications Technology Group (ICT), and the staff of the Division of Information Services and Systems at Loughborough University.

Planning addressed the possible barriers resulting from this large geographical separation. The project team realised from the outset that effective communication was essential for the project to succeed. Teleconferencing, e-mail and video conferencing were proposed as the three preferred communication methods with each approach having a different purpose.

- Teleconferencing: Graham Walton from Loughborough and Liz Burke, and then Lea Beranek (when Liz relocated to Western Australia) from La Trobe were the nominees to provide project management. Monthly telephone meetings were held with distributed minutes.
- E-mail: setting up meetings and exchanging documents was achieved by e-mail. E-mails were copied to all project team members.
- Video conferencing: two video conferences were held after the data collection to explore how the data would be presented, the report writing process and how the results, conclusions, and recommendations would be used and disseminated.

There were differences in the spelling of some words and units of measurement because of international differences. Some unnecessary editing during revisions was caused by the country-specific spell-checking function that comes with word-processing software.

It is a credit to the two Universities and the project team that these levels of complexity did not prevent the project from succeeding.

### **Project Timescale**

From the outset, a project timescale was identified and agreed between the two universities (see below). This was used as a project calendar identifying various milestones and tasks which had to be achieved. The timescale was monitored at the regular telephone project management meetings that took place. It proved very beneficial to have a 6 month data collection period. This allowed time for developing the questionnaire and distributing it at an appropriate time for both La Trobe and Loughborough. The project was completed on schedule.

**Table 1: Project Timescale**

Activity	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	July 06	Aug 06	Sep 06	Oct 06
Agree final project plan											
Collect data											
Analyse data											
Evaluate results and write report											
Project Steering Group monthly meetings											

**Methodology*****Planning***

The project was timetabled to take place between December 2005 and September 2006. A data collection protocol and questionnaire were developed by the project team. The actual timing of the data collection was left to the individual universities to decide, as the scheduling of the academic year is not the same in Australia and the UK.

It was intended that the questionnaire would be completed by students at each institution. At La Trobe University, only the Bundoora Campus was involved as it was decided that conducting the survey across a number of geographically disparate sites would add a level of complexity that the project team did not want to factor into their first experience of an international collaborative project. A set of core questions was used by each institution, however, some additional questions specific to each institution were also included.

**Data Collection*****Survey Form***

Loughborough University Library drafted a basic survey form. Feedback was sought at both institutions from colleagues in the computing services section of the University. The questionnaire was modified through nine iterations before the project team was satisfied that the questions were succinct and meaningful and all the data needed was covered. See Appendix A.

***Pilot***

Loughborough University Library undertook a pilot of the survey questionnaire.

Respondents were asked four questions:

- Was the questionnaire easy to complete?
- Were there any questions which were unclear?
- Did the questionnaire allow you to express the views you have about accessing a PC on campus?
- Any other comments?

The pilot identified some ambiguity in the wording of a few questions and the survey questionnaire was slightly modified as a result of this.

***Administration***

The survey was administered at La Trobe University as a printed survey form from Monday 15 May to Friday 26 May 2006. This two-week period was chosen as it was a peak time in first semester but didn't clash with the examination period. Students were surveyed in seven locations:

- Library
- Computer Study Hall
- Engineering computer lab
- Health Sciences computer lab
- Law & Management computer lab
- Humanities computer lab
- Education computer lab

A printed survey was chosen over an online survey as in the planning stage it was not intended to use SPSS for data analysis and the La Trobe project team anticipated it would be easier to manage the results from printed forms with Excel. Despite the fact that SPSS

was used for data analysis, the decision was made to retain a printed survey. The survey forms at La Trobe University were colour-coded to assist in distinguishing responses from the various locations. Distribution of the forms was undertaken by casual staff employed by the Library for the purpose of the survey. 757 responses were received.

The survey was administered at Loughborough University from Monday 24 April to Sunday 30th April 2006 in both printed form and as an online survey. The printed questionnaire was only available for completion in the Library. This was agreed after Computing Services and departmental IT lab staff indicated that paper distribution in their areas was not appropriate. An electronic version was made available to all registered students. The survey period was reduced to one week owing to the very high response rate to the electronic questionnaire. 611 e-mailed responses were received within 7 days. There were 83 paper questionnaires returned in the Library giving a total number of responses of 694.

### ***Data Processing and Analysis***

Data were entered into SPSS by a consultant employed by the Library at each institution. Frequency tables were produced as well as cross tabulations to demonstrate relationships between key characteristics such as a student's preferred location for using a computer and his/her faculty. Once the data were available each institution analysed their own data and then comparisons across the two institutions were made.

### ***Funding***

When the project commenced, the intention was to complete the work within existing resources. However, at La Trobe, the University Library, via the Library Research & Development Committee provided funding for casual staff, promotion and outsourcing SPSS data input. Funding was also made available at Loughborough to bring in staff for the data input and some of the data analysis.

## **Survey Results and Discussion**

### ***Category of Respondents***

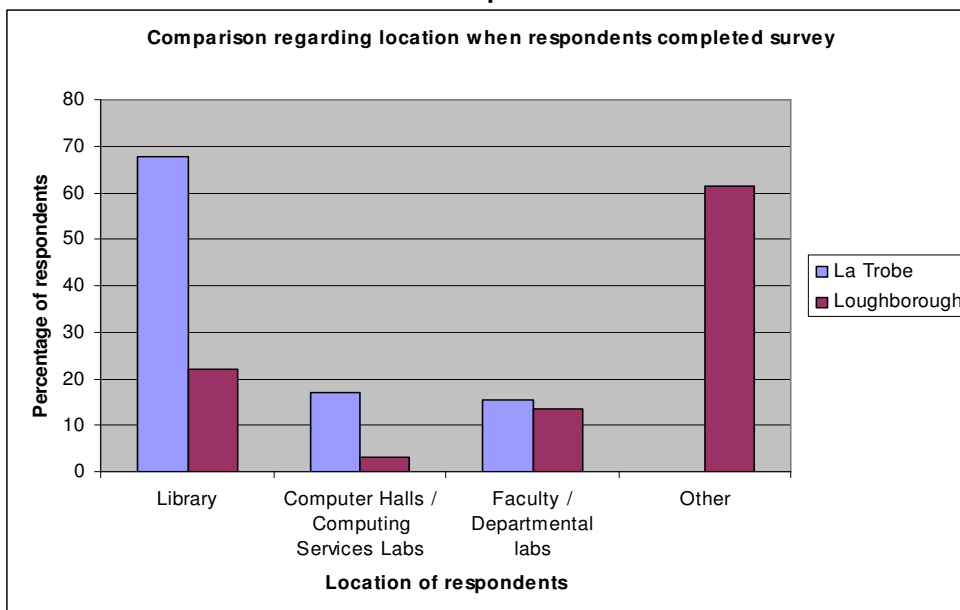
Both institutions received a similar number of responses which were divided into similar categories. For example, the majority of respondents were undergraduates, and most of those were full time students. The division of undergraduate respondents by year was also similar and the majority of postgraduate students were course based rather than research based.

### ***Location When Completing Survey***

Graph 1 shows that at Latrobe most respondents (67%) were in the Library when completing the survey. The remaining 33% were evenly divided between the Computer Study Hall and Faculty/ Department labs.

At Loughborough most respondents were in the location known as "Other" (62%), which the project team believed were halls of residence or home, 22% indicated they were located in the Library, and the remaining 16% were in Faculty and Computing Service Labs.

**Graph 1**

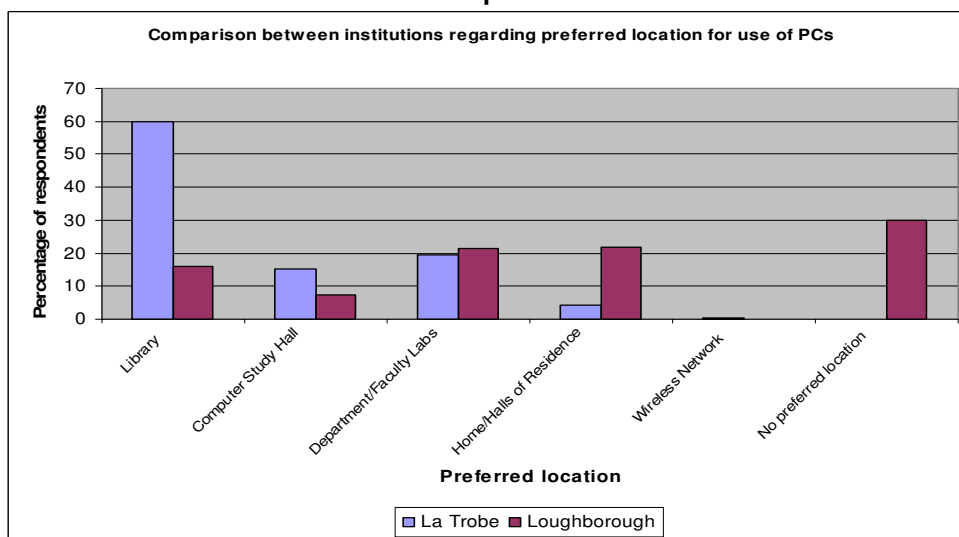


**Preferred Location**

Graph 2 shows that at Latrobe, the Library was the preferred location to use computer facilities, followed by the Faculty/Department Labs and the Computer Study Hall. It was noted that 60% of all La Trobe respondents preferred to use computing facilities in the Library. Only the Health Sciences students had a significant second preference for their own Faculty Labs, presumably because of specific tools or specialised equipment unavailable elsewhere.

At Loughborough approximately 70% of respondents were split over “no preferred location”, “Homes/Halls of residence” and “Departmental labs”. It is interesting to note that 30% of Loughborough respondents had no preferred location.

**Graph 2:**

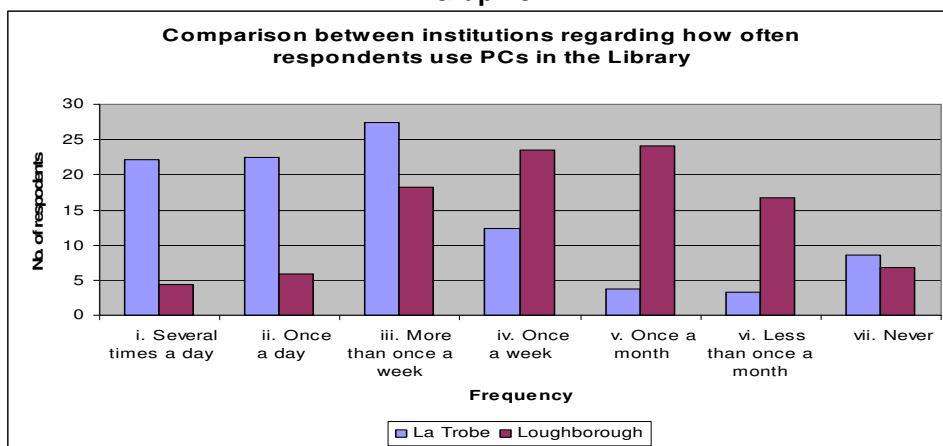


**Frequency of Using Computing Facilities in the Libraries**

Graph 3 shows that at Latrobe University, over 67% of respondents said they used the computing facilities in the Library more often than once a week. These responses were nearly equally distributed between “several times a day”, “once a day” and “more than once a week”.

At Loughborough, 29% of the respondents stated that they used the computing facilities within the Library more than once a week. Only 7% of respondents stated that they never used computing facilities in the Library.

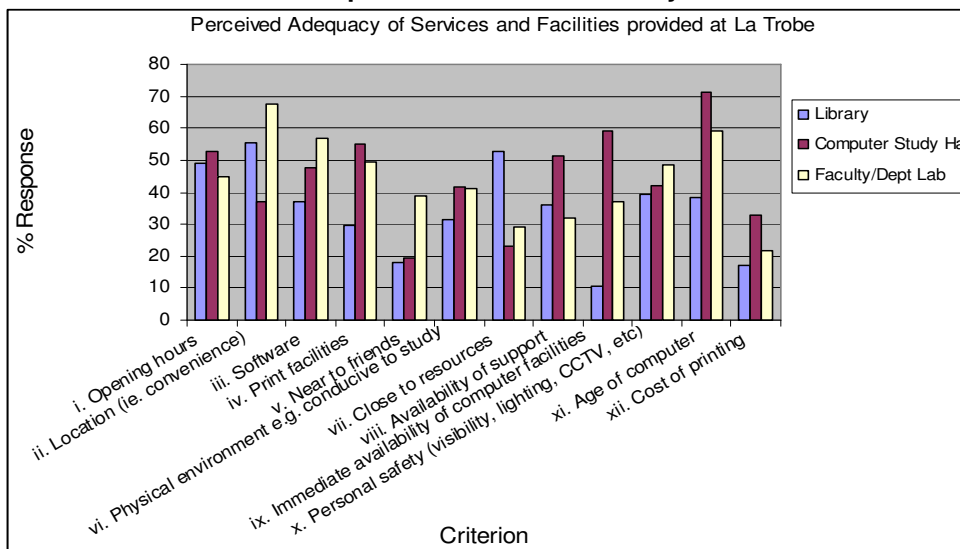
**Graph 3**



**Perceived Adequacy of Various Services and Facilities**

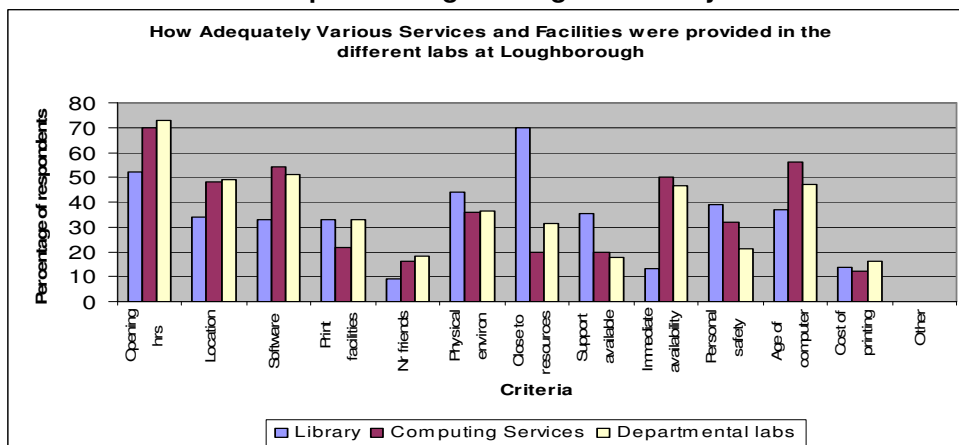
Graph 4 shows how many students at La Trobe rated the Library as “very good” at providing a number of Services/Facilities. In decreasing order, these were 55.7% of respondents said the “location (i.e. convenience)” was “very good”, 52.6% said that computing facilities “close to resources” was “very good” and 48.8% indicated the Library’s “opening hours” were “very good”.

**Graph 4 – La Trobe University**



Graph 5 shows how many students at Loughborough rated the Library as “very good” at providing a number of Services/Facilities. In decreasing order, these were 70% of respondents said the “close to resources” was “very good”, 52% said that “opening hours” was “very good” and 44% indicated that “physical environment” was very good.

**Graph 5 – Loughborough University**



### **Importance Criteria for Preferred Locations and How Adequately Various Services and Facilities were provided**

The *levels of importance* of all the various Services/Facilities (criteria) were ranked by the terms "very important", "important" and "not important" at both Universities.

The *levels of performance* of all the preferred locations in providing the various Services/Facilities (criteria) were ranked by the terms "very good", "good" and "poor" at both Universities.

When these two distinct rating factors – importance level and performance level – were cross-tabulated, all the various Services/Facilities (criteria) were ranked (for each preferred location) in a most useful way. The strength of this simple technique exposes *significance levels* in the data which would be otherwise difficult to see. For example, when students report in a survey that a particular Service/Facility is poorly provided, yet the consensus is that the need for that Service/Facility is unimportant, the service-provider need not be overly concerned. Conversely, when students report in a survey that a particular Service/Facility is poorly provided, AND the consensus is, that the need for that Service/Facility is important, the service-provider should be very concerned.

Of course the project team would like to see both Universities' performances rated by the students as "very good" AND "very important" for all the Services/Facilities provided, or at least gain some insight into how this might be achieved in future.

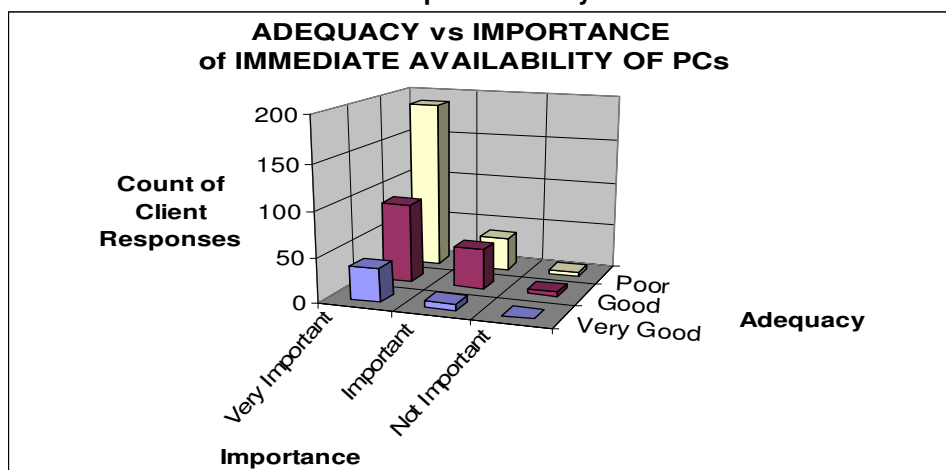
#### **La Trobe University**

The survey showed that, for all preferred locations at La Trobe, "immediate availability of PCs" and "print facilities" were the most important criteria. The least important were "near to friends" and "personal safety".

For the Library, the two Services/Facilities which fewest respondents rated as "very good" were: "immediate availability of PCs" by only 11% (44) of respondents and the "cost of printing" with only 17% (70) respondents

Graph 6 shows that "immediate availability of PCs" had by far the highest count of "poor + very important" adequacy, as well as the lowest response in the "Very Important + Very Good" category. These data indicated an ongoing problem at the Latrobe University Library, which is currently being addressed (Beranek, 2006).

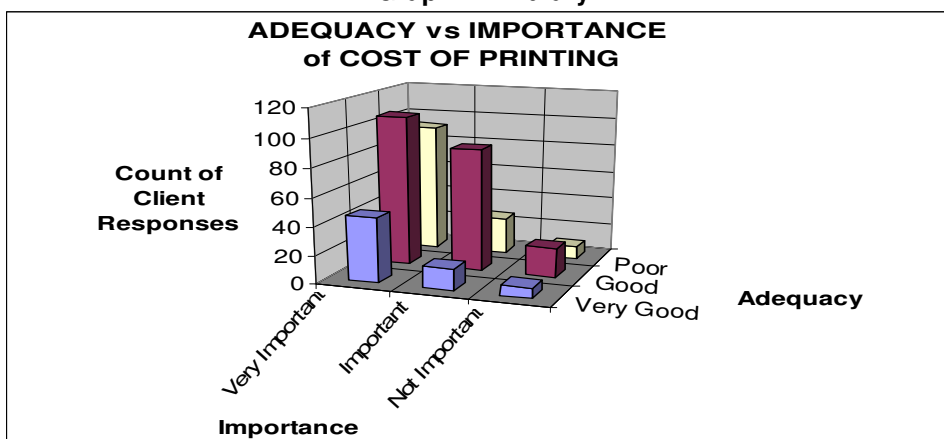
**Graph 6 - Library**



Graph 7 shows that the "cost of printing" (which was the most specific of all the Services/Facilities) had the second highest "poor" rating as well as the second highest count for the "Poor + Very Important" category. This was significant and indicated a high dissatisfaction level.



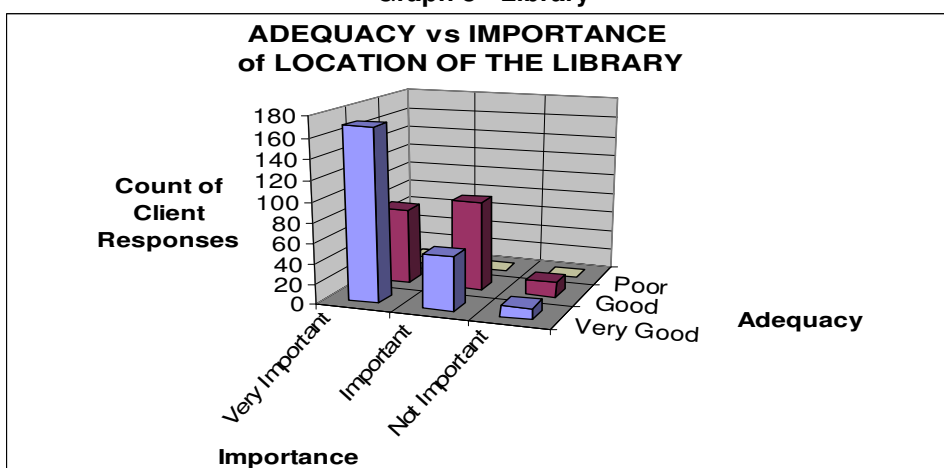
**Graph 7 - Library**



For the Library, more than half of the respondents regarded three additional criteria as "very important". These were, "location" 60% (175), "close to resources" (59%) and "opening hours" (55%). These same Services/Facilities also received the highest "very good + very important" ratings therefore indicating three very important criteria of Library performance have been rated "very good".

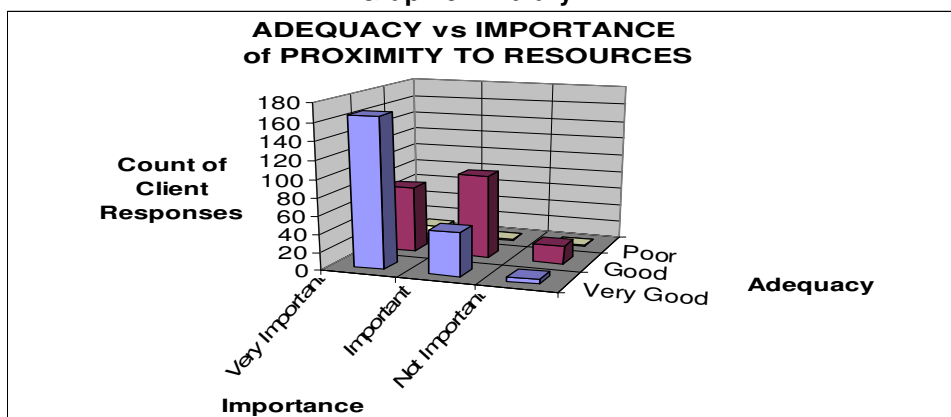
Graph 8 shows that students were close to maximally satisfied with the location of the Library.

**Graph 8 - Library**



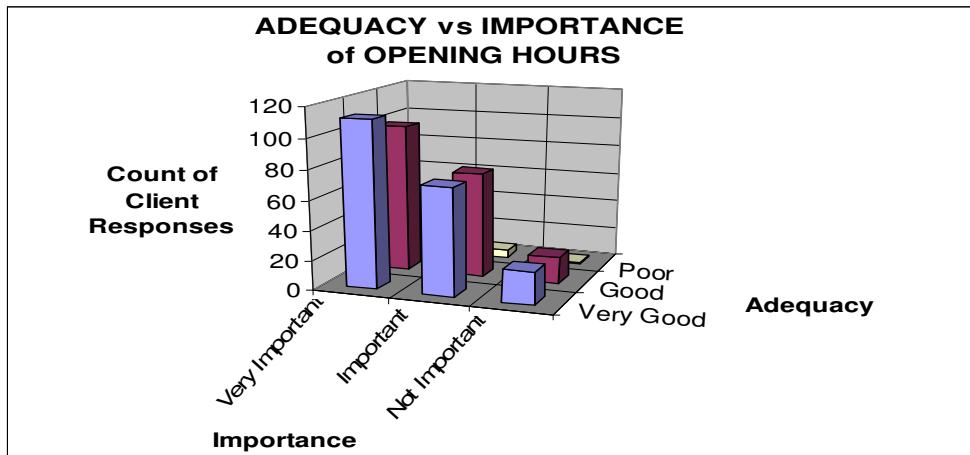
Graph 9 indicated the Library was considered excellent at providing computing facilities close to resources.

**Graph 9 - Library**



The vast majority of respondents were satisfied with opening hours. Altogether, only 6.6% (28) of respondents believed the Library's opening hours were "poor" as shown in Graph 10.

**Graph 10 - Library**



For the Computer Study Hall, the “very important” criteria were ranked in decreasing order: “immediate availability of PCs” (85%) and “print facilities” (72%), “opening hours” (57%) and “physical environment” (54%).

For the Faculty/Department Labs, the “very important” criteria were ranked: “immediate availability of PCs” (84%) and “print facilities” (77%), “opening hours” (58%) and “physical environment” (57%).

As stated earlier, “immediate availability of PCs” and “print facilities” were the two criteria which were rated as “very important” by most respondents, irrespective of their stated preferred locations for using PCs.

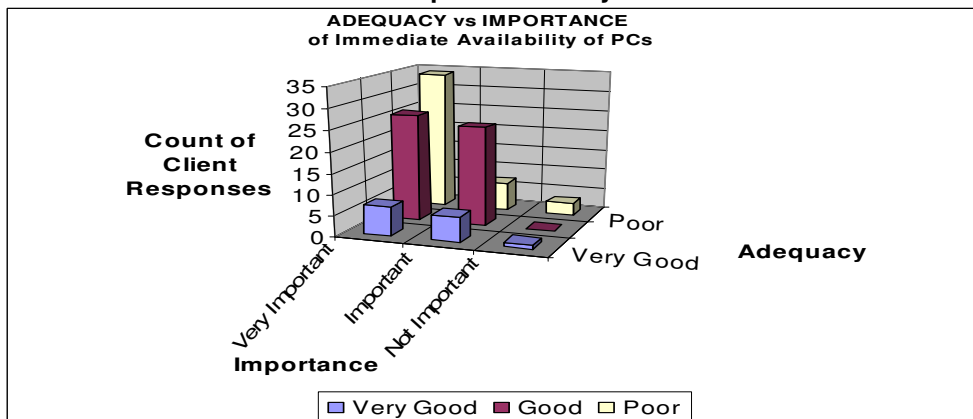
Cross-tabulated data demonstrates that Adequacy vs Importance of the “availability of Support” in the Library this Service/Facility had the highest single count of “Important + Good” of all the Services/Facilities.

**Loughborough**

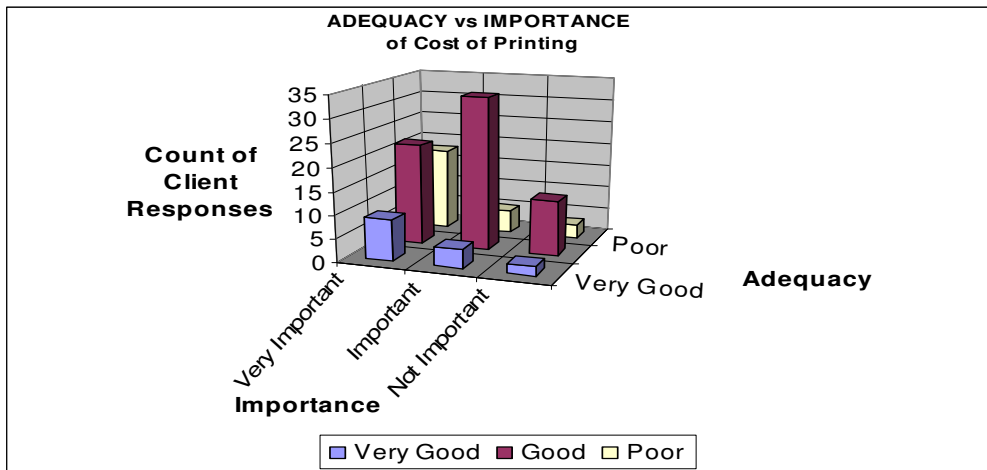
For the Library, the two Services/Facilities which fewest respondents rated as “very good” were “immediate availability of PCs” and the “cost of printing”, both by only 12% respondents.

Similar to La Trobe, Graphs 11 and 12 show that these same Services/Facilities also received a high “poor + very important” ratings.

**Graph 11 - Library**

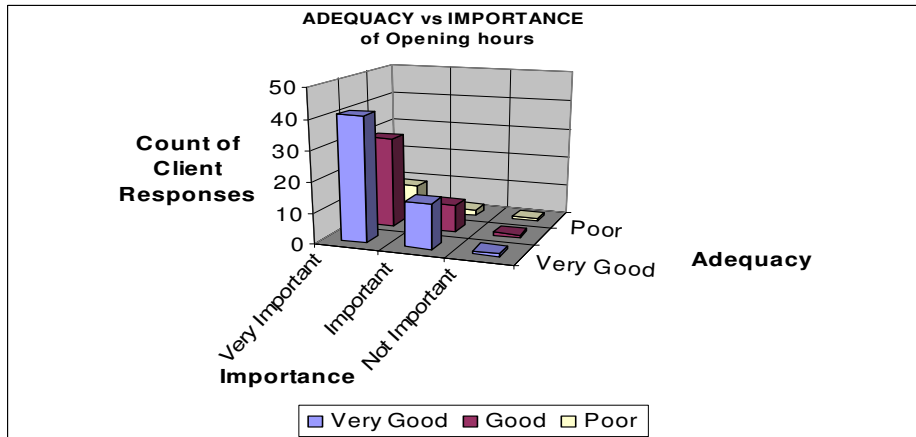


**Graph 12 - Library**



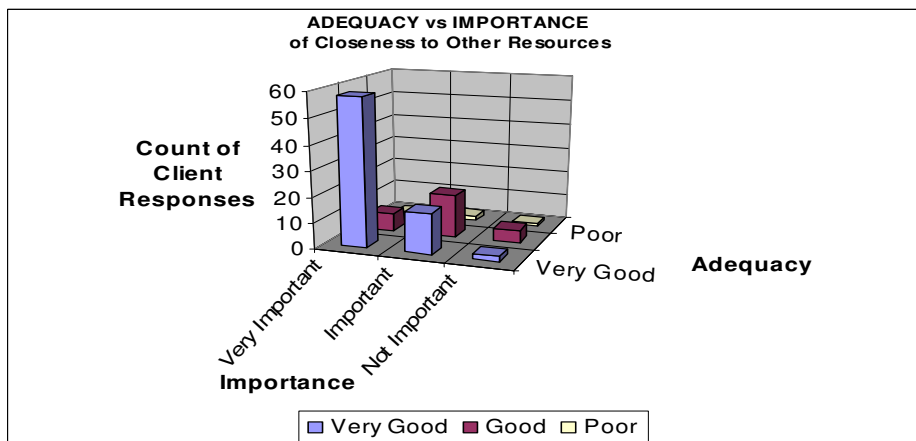
Despite the Library receiving lower scores than other labs on campus regarding opening hours, those respondents who stated that opening hours were important did rate the Library relatively highly in this area of provision as illustrated in Graph 13.

**Graph 13 - Library**



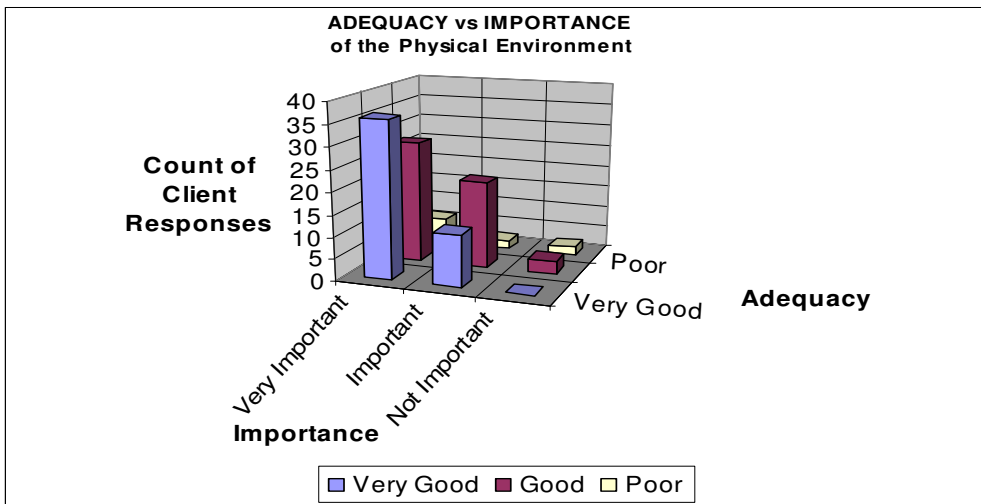
It is apparent that students who use the Library computing facilities appreciate being close to other resources and feel that the Library provides "very good" access as shown in Graph 14.

**Graph 14 - Library**



For the Library, the "physical environment" (64%) as shown in Graph 15 was also considered to be important criteria for choosing to use a PC.

**Graph 15 - Library**



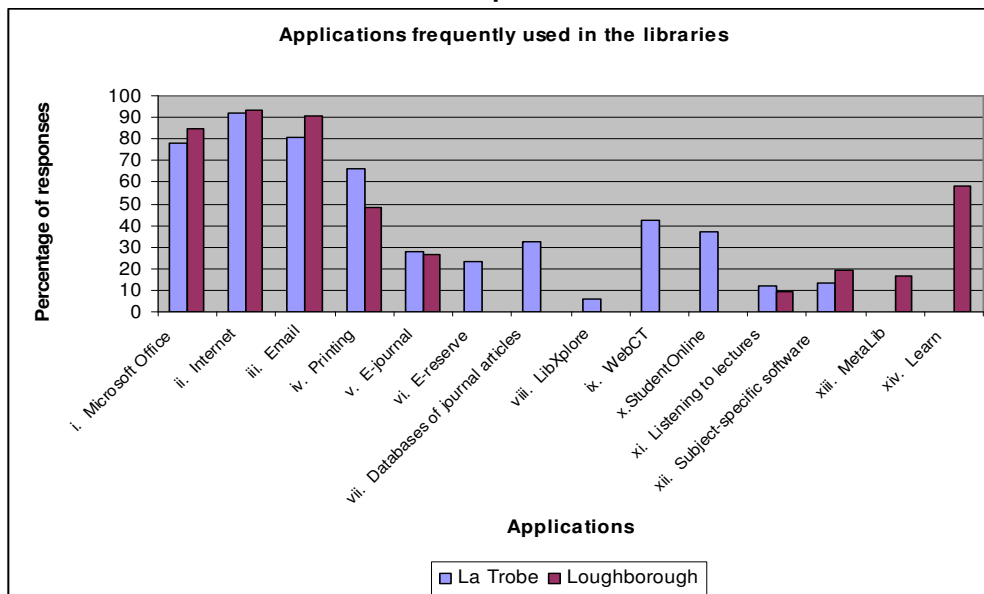
In the Library, low priority was attached to being near friends, availability of support and a sense of personal security.

For the Computing Services labs, "location" (63%) was identified as being important. For the Faculty/Departmental Labs, the "availability of software" (70%) was the factor identified as being important along with PC availability and opening hours.

**Applications Used in Preferred Locations**

At both universities, the top three applications being used were: "Internet", "email" and "MicroSoft Office" as seen in Graph 16.

**Graph 16**



**La Trobe University**

In the Library, 92% of respondents indicated they used the Internet "very often", with 81% for email, 78% for Microsoft Office, and 66% for "printing". The most infrequently used applications were LibXplore (the Library's metasearching service) with 63% of respondents reporting they "never" used this facility and "listening to online lectures", with 59% reporting they "never" used this facility. Use of E-journals was also relatively low with 26% of respondents reporting that they "never" used this facility, and with 20% of respondents reporting that they "never" used E-reserve. The Project team felt that the apparent low use could be due to students using E-journals or database journal articles and E-Reserve under the broad heading of Internet.

In the Computer Study Hall, Microsoft Office, Internet, Email and printing facilities were the most used applications, with only 4% of respondents indicating they never used these applications. Most respondents who preferred the Computer Study Hall indicated that they used these applications very often, ranging from 97% for Internet down to 61% for printing. The least used applications were LibXplore and "listening to online lectures". Subject-specific software was never used by 48% of respondents, along with 37% of respondents who indicated they never used either E-journals or E-reserve.

In the Faculty/Department Labs, Microsoft Office, Internet, Email and printing facilities were the most used applications, with only 7% of respondents indicating they never used these applications. Most respondents who preferred their Faculty/ Department lab indicate that they used these applications very often, ranging from 96% for Internet down to 65% for printing.

A high percentage (73%) of respondents never "listened to online lectures" in their Faculty/ Department lab, closely followed by LibXplore with 69%. Small numbers of respondents (38%) reported they never used E-reserve, along with 36% of respondents who never used E-journals and 35% of respondents who never used subject-specific software.

### **Loughborough**

The top four applications in all locations, including Home/Halls of residence, being used "Very often" were the Internet, Email, Microsoft Office and Learn (the university's virtual learning environment). Listening to online lectures, E-journals and MetaLib (the Library's gateway to electronic resources) were the least used applications. Some slight variances did occur in the ICT applications used more heavily than others across the four areas (Library, Computing Services, departmental labs, home/ hall). The Internet was accessed by 94% of users in Library, 100% in Computing Services, 97% in departmental lab and 98% in home/ hall. With e-mail, 91% were in Library, 94% in Computing Services, 97% in departmental labs and 96% in home/ hall .

Microsoft Office was used by 85% in Library, 78% in Computing Services, 78%, in departmental labs and by 71% at home/ hall. E-resources (E-journals, MetaLib and Listening to online lectures) were the applications used the least across the locations. This could have been because students have a low level of awareness of the available electronic resources. It also is interesting to note that the Internet was much more heavily used than other e resources applications such as E-books and E-journals. Students could have been using E-books or E-journals but categorised them under the broad heading of 'Internet'

### ***Notable differences Between Universities***

The most preferred place to use computing facilities was the Library at La Trobe and 'No preferred location' at Loughborough.

The data also shows that La Trobe has an almost 14-times higher frequency of computing facility usage than Loughborough – about every day at La Trobe compared to once per fortnight at Loughborough, on average, per student. (see Graph 3)

The number of available PCs at La Trobe University Library is 13 *per* 1000 students compared to Loughborough University Library with 10 *per* 1000 students.

### **Summary of Cross-Tabulated Data for La Trobe University**

- The Library outranked all other locations as the preferred place to use computer facilities. This applied equally to both postgraduates and undergraduates.
- The provision of "immediate access to PCs" in the Library was ranked by students as the "most important" of all the Services/Facilities with the highest count of "poor" adequacy, as well as the lowest percentage response in the "Very Important + Very Good" category.
- The availability of "printing facilities" in the Library had the highest of all counts in the "Very Important + Good" category. However, it's "poor" rating was the third highest of all Services /Facilities and therefore signals a potential problem.

- Data suggested that clients were close to maximally satisfied with the "location" of the Library and the "closeness to resources".
- The "cost of printing" was the most specific of all the Services/Facilities and had the second highest "poor" rating total as well as the second highest count for the "Poor + Very Important" category across all Services/ Facilities. This was significant and indicated a high dissatisfaction level.
- In the Library, the "availability of support" had the highest single count of "Important + Good" of all the Services/Facilities.
- Over 67% of respondents said they used the computing facilities in the Library more often than once a week. These responses were nearly equally distributed between "several times a day", "once a day" and "more than once a week".
- 59% of survey respondents preferred to use computing facilities in the Library.
- Nearly 55% of respondents said they "never" used the computer facilities in the Computer Study Hall, and about half the respondents "never" used the computing facilities in Faculty/ Department Laboratories.
- Fewer than 20% of all respondents said they used wireless network facilities, and of these, only 10% said they used this facility "more than once a week". Although these numbers appear small, they are expected to increase.

### **Summary of Cross-Tabulated Data for Loughborough University**

- For the Library, the "physical environment" (64%) and "location" (58%) were also considered to be important criteria for choosing to use a PC there.
- For the Computing Services labs, "location" (63%) was identified as being important.
- For the Faculty/Departmental Labs, the "availability of software" (70%) was the factor identified as being important along with the PC availability and opening hours.
- Across all three locations at Loughborough, students were least happy with the costs of printing. They also appeared to be discontent about how close to friends they were when accessing a PC.
- The Library, did not score as well against the Computing Services and departmental labs in relation to opening hours, location, immediate availability of PCs, age of PCs and provision of specialist software. Only 13% indicated that there was good availability of PCs in the Library.
- In the Library applications that rated the highest in frequency of use were the Internet with 94% and email with 91% of respondents indicating they used these applications very often.

### **Collaborative and International Aspects of the Project**

There were various levels of complexity that had to be addressed if the project was to be successfully completed. At both universities, provision of access to computing facilities was shared between the Library, a central computing service and departmental facilities. It was important that these three stakeholders at both universities were in agreement about the project.

There were issues of territory and ownership that needed to be negotiated. The project team invested significant effort to ensure that the various groups were aware of the project, were consulted and kept informed. The project team held meetings with key individuals in their universities. They also attended meetings to seek approval and input on the study. This resulted in the need for negotiation and alterations in the methodology. For example, at Loughborough the Computing Services and the departmental computing staff made it clear that the questionnaire could only be distributed electronically if it was to be completed in their areas. Computing Services also wished to use the opportunity to gain additional data and therefore another question was added in the Loughborough (but not the La Trobe)

questionnaire concerning 24/7 access to computing facilities on campus. A key issue for the project team was how the recommendations and findings would be used to influence future access provision to computing facilities in their own institutions.

A research project between two separate institutions presents a complex environment. La Trobe and Loughborough Universities differ considerably. La Trobe has seven campuses and Loughborough is a single campus institution. Joint research projects have risks associated with competing agendas, and the potential for dominant partners not allowing contributions, or one partner hi-jacking the project to focus on their interests at the expense of other partners. Therefore, the project team had initial discussions focussed on the nature of joint working practices. It was agreed that it was an equal partner project with neither University taking the lead. Decision-making was seen as being shared equally. An example of this approach was that the chair and secretary roles for the teleconference meetings alternated between La Trobe and Loughborough. The project report was also produced by each University taking turn in producing a draft that was then made available to the other University for comment and further contributions. Despite never physically meeting, the project team functioned well and developed an effective working relationship.

A further level of complexity resulted from the international scope of the project. La Trobe University is in the Southern Hemisphere and Loughborough is in the Northern Hemisphere. This resulted in differences in academic calendars. The different time zones also had implications for co-ordination and meeting. For example, 4:30p.m. in Melbourne was 7:30a.m. in Loughborough. In addition, mid-way through the project, Liz Burke left La Trobe University to take up a position at the University of Western Australia. While she continued working on the project, this introduced a third time zone as Western Australia is two hours behind Melbourne.

### **Conclusion**

The objectives of the project were met identifying the factors which influence a student's choice of location when using a computer on campus, identifying that a trend does not appear to exist between a student's academic discipline and their preferred location when using a computer, identifying the computer applications students use, and gathering data which can be used in planning appropriate computer provision and support.

A number of similarities appeared to apply equally to both La Trobe and Loughborough survey results:

- That students expect to have immediate access to computing facilities whenever needed;
- That students need access to computing facilities as individuals more often than as members of a group;
- Internet, Microsoft Office and e-mail were the heaviest used applications by students;
- Students perceived that printing was too expensive on campus;
- Depending on the location where students accessed computing facilities, there were different ratings for what was considered to be most important as well as adequate;
- Some students considered it restrictive to have access to specialist software only in departmental labs.

The most significant difference between the La Trobe and Loughborough survey experiences was that most respondents at La Trobe were in the Library when they completed the questionnaire. This is consistent with the survey showing the very high general rating of the Library as "the preferred place for study" no matter where the survey was completed. At Loughborough most respondents were in the location known as "Other", which the project team believed were halls of residence or home. This may have affected how the questionnaire was completed.

The project has highlighted the use of electronic learning resources but did not explore this area in great detail. Further study into this area would be relevant and appropriate.

## References

Beranek, L. (2006) A Method of Predicting Queuing at Library Online PCs, *Australian Academic and Research Libraries*, vol.38, no.4, December 2006. *In preparation*.

Lubans, J. (2005) Consulting and organizational studies <http://www.lubans.org/john.html>  
[Accessed 15 April 2005]



## Where and Why Students Choose to use Computer Facilities

### 1 Which of the following categories best describes you: (Please tick one box only)

- Undergraduate Year 1  Postgraduate (taught by course work)   
 Undergraduate Year 2  Postgraduate (research)   
 Undergraduate Year 3  Other (please specify) \_\_\_\_\_  
 Undergraduate Year 4

### 2. Are you ? (Please tick one box)

- a full-time student  or a part-time student

### 3. Which Faculty are you enrolled in? (Please tick all that apply)

- Health Science  Humanities and Social Science   
 Law and Management  Science, Technology and Engineering   
 Education   
 Other (please specify) \_\_\_\_\_

### 4. What is your current location?

- Library  Computer Study Hall   
 Faculty/Department Lab   
 Other (Please specify building/room number) \_\_\_\_\_

### 5. Which computing facilities do you use for your studies and how often do you use them? (Please tick all that apply)

	Several times a day	Once a day	More than once a week	Once a week	Once a month	Less than once a month	Never
Library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer Study Hall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Faculty/Department Lab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Home/Hall of Residence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wireless Network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Please specify where you usually use the wireless network)

- Other          
 Please specify \_\_\_\_\_

### 6. Do you have a preferred location to use computer facilities?

Yes  No  (If no, please go to Question 9)

If yes, please specify where:

Why?

**7. For your preferred location, please rate the importance of the following criteria when deciding to use a computer.**

	Very important	Important	Not very important
Opening hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location (i.e. convenience)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Range of software applications available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Print facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Near friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical environment e.g. Conducive to study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close to other resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Immediate availability of computer facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal safety (visibility, lighting, CCTV etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age of computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of printing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**8. For your preferred location, how adequately do we provide the following:.**

	Very good	Good	Poor
Opening hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location (i.e. convenience)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Range of software applications available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Print facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Near friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical environment e.g. Conducive to study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close to other resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Immediate availability of computer facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal safety (visibility, lighting, CCTV etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age of computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of printing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**9. How often do you use the following applications**

	Very often	Often	Occasionally	Never
Microsoft Office™ applications (e.g. Word™, Excel™, Powerpoint™)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Printing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E-Journal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E-Reserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Databases of Journal articles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(MetaLib) Lib Xplore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WebCT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
StudentOnline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listening to lectures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subject-specific software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**10. Please provide any other comments you have on computing facilities in the space below**

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**Appendix B: Loughborough University's Additional Question**

<b>For your preferred location, when do you use the computer?</b>	More than once a day	Once a day	More than once a week	Once a week	Once a month	Less than once a month	Never
Monday - Friday 5pm – 10pm							
Monday - Friday 10pm – 9am							
Saturday – Sunday 9am – 5pm							
Saturday – Sunday 5pm – 10pm							
Saturday – Sunday 10pm – 9am							

