

Investigation into the student use of non-university owned computers.

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Background and rationale

This project set out to investigate what students use computers for outside the University and what inhibited their use of computers outside the University.

The issue arises out of regular discussion in Learning and Teaching groups and Technology Supported Learning (TSL) groups as well as in module evaluation by students. The issue was noted in an evaluation of online delivery experiment in HLSS by Jon Bernardes. The key rationale for the project is to determine where the University should prioritise information technology (I.T.) support and infrastructure. Would discounted PC purchase schemes be more effective for our learners than ever increasing number of computers being installed on site?

The Research

A questionnaire was produced (see appendix 1) and distributed to TSL co-ordinators from each of the ten academic schools. Questionnaires were also distributed via learning centres on the various campuses. In total 1000 copies of the questionnaire were distributed with 284 returned. It was originally thought the questionnaire would also be available online but this was not implemented as it was thought that this might skew results in favour of students with higher I.T. confidence and competence.

The Outcomes

Results Overview (see results tables in appendix 2)

- Over 90% of respondents own their own computer, although 4.77% rely totally on the University for their computing provision.
- Over 85% of responding students have access to the Internet from outside the University.
- The majority of students (over 81%) would prefer to work from home.
- 71% said they use their computers to help with their studies
- 66% said they access module related resources from outside the University whilst 31% said they would if they were available.
- 235 people (83.33% of the total sample) use University provision and 250 people (88.65% of the total sample) use a home computer to help with studies. This indicates that there is a significant overlap in the use of computing facilities between home and University.

- 13% stated that cost of connecting to the Internet inhibited their use of a computer.
- The most inhibiting factor was being too tired after work/study (56% of respondents)

Conclusions

The relatively small percentage of the whole student population who responded to this questionnaire may well have slanted the results towards a self selecting group of enthusiastic computer users. Only 14 people said they had no access to a computer outside the university. It is also apparent that the Business School contributed the most responses (over 42%), which may also skew the results in favour of students who have to engage with I.T. more often, as part of their course work and therefore are more likely to own a computer.

There was some contradiction in responses, with only 23.63% saying they use their computers to help with their studies, whilst 66.54% said they access module support materials – such as those within the Wolverhampton Online Learning Framework (WOLF) – via the Internet.

As a high proportion of questionnaires were circulated through I.T. help desks in learning centres, there may also be a tendency for the respondents to be limited to the better motivated students with higher levels of IT ownership and competency.

Only 37 people (13.12% of all respondents) cited cost of Internet connectivity as an inhibiting factor in their use of the Internet. 219 (74.11%) respondents said they access the Internet from outside the University but the survey did not gather information on duration of Internet access either inside or outside the University.

Whilst the level of Internet access is impressively high at 227 (85.33%), the level of Broadband access is relatively low at just 38 (14.28%) respondents.

Time spent using an external computer was fairly evenly distributed between all categories available on the questionnaire with the mean time being between 9 and 12 hours a week.

There is a clear desire from the student population to work away from the institution with 229 (81.49%) students stating they would prefer to use a computer at home.

A large number of the comments made in the free text area of the questionnaire highlight the problem of overcrowding and noise in open access IT facilities. For example *“Not enough PC’s especially when assignments are due - Not enough B/W printers.”*; *“You don’t have to wait around like Uni”* and *“Non-Uni computers generally run smoother.”* *“There is not such a wait for one, you can work where people are not so loud and are not constantly jammering on mobile telephones.”*

Many students saw the convenience and quiet workspace of working from home to be an important factor in making their decision on where to use a computer for example: *“It is not so time consuming, it is available whenever I want it”*; *“I tend to get more work completed faster whilst using my home computer;”* and *“I feel it is better and more efficient to work from home.”*

Others acknowledged the benefits of University I.T. provision particularly when it added value for them with facilities or resources not available outside the institution for example: *“It is more useful to use the University computers because you also have access to other resources e.g. books etc which are in the learning centre.”* and *“Working from home there is a slower data transfer speed. Other resources and technical help are not at hand when needed, delaying progress.”*

A key area highlighted in the text responses was the lack of knowledge or lack of confidence in how to achieve particular tasks, for example *“I would like to access my individual I drive from home using my password and username.”*; *“I cannot access my University Email from home.”* And *“I don’t feel confident in using computers. Need training.”* This highlights the need for some I.T. support mechanisms for students when off campus.

Whilst it is encouraging to see such a high uptake of external IT use, it is important to realise that many students either rely on University provision or use both University and home computers to meet their computing needs. The University provision is particularly important to students for Internet access and access to online journals.

Future developments

Clearly there is a wide use of computers to support learning both in and outside of the University. At an institutional level the University needs to evaluate options for supporting students with their external computer use. This may include such factors as assisted purchase, technical support or support for software use. All of these options will take considerable resources and expertise, which is currently beyond the scope of I.T. Services, Learning Centre and school based support staff. Before any major decision is made on future provision of off site support options, it would seem prudent to confirm and build on the finding of this study via a further focused study. This new study would need to be targeted more carefully to ensure students from all schools, levels and backgrounds take part to give a more complete picture of use and home provision.

References

- KERAWALLA, L. and CROOK, C. (2002) Children's Computer Use at Home and at School: context and continuity. *British Educational Research Journal*, 28(6), pp751-771.
- ODDY, E. (2002) Overview of the University of Wolverhampton Laptop Loan Trial *Unpublished paper*

Appendix 1 Questionnaire

- Q1 Which University academic School are you studying in? School
- Q2 Please enter the first part of your home postcode (e.g.WV1). Postcode
- Q3 Your level and mode of study: ☐ Level 1 ☐ Level 3 ☐ Full time
☐ Level 2 ☐ Postgraduate ☐ Part Time
- Q4 Your age group: ☐ 18-21 ☐ 31-35
☐ 22-25 ☐ 36-40
☐ 26-30 ☐ Over 41
- Q5 Which qualifications have you attained before coming to university? ☐ A-Levels ☐ Access Course
☐ HND/HNC ☐ Other
- Q6 How many children under 16 years live in your house? ☐ None ☐ Two ☐ Four or more
☐ One ☐ Three
- Q7 Do you own a Personal Computer or Apple Macintosh? ☐ PC (go to Q8) ☐ No (go to Q7a)
☐ Apple Macintosh (go to Q8)
- Q7a If **No** do you have access to a computer when not at the University? ☐ PC ☐ No (If no go to question 15)
☐ Apple Macintosh
- Q8 How old is this computer? ☐ Less than one year ☐ Over 5 years
☐ Between 1 and 3 years ☐ Don't know
☐ Between 4 and 5 years
- Q9 Does this computer have access to the Internet? ☐ Yes Modem connection ☐ Yes, unsure of connection
☐ Yes Broadband connection ☐ No
- Q10 Who uses this computer the most? ☐ You ☐ Children
(Tick one only) ☐ Your Partner ☐ Other person/people
- Q11 What is this computer generally used for (all users)? *(Tick all that apply)* ☐ Games ☐ Word Processing
☐ E-mail ☐ Helping with studies
☐ Web Browsing
- Q12 Would you access module support materials from outside the University via the Internet if they were available? ☐ Yes ☐ I already do
☐ No
- Q13 If you already access module support material (such as WOLF) via the Internet, how often do you do this? ☐ 5 days a week or more ☐ One day a week
☐ 2-4 days a week ☐ Less than one day a week
- Q14 Which of the following do you personally use from outside of the University? *(Tick all that apply)* ☐ E-mail ☐ Spreadsheets
☐ Word Processing software ☐ Databases
☐ Internet ☐ PowerPoint
- Q15 Where do you use a computer to help with your studies? *(Tick all that apply)* ☐ At the University ☐ Public access point (e.g. local library, Internet café etc.)
☐ At home ☐ I don't use a computer to help me with my studies (go to Q18)
☐ At work
☐ At a friends house
- Q16 How often is this computer available for your use? ☐ Whenever I want it ☐ After another person has finished using it
☐ When I can arrange it with the owner ☐ After children have gone to bed
- Q17 How many hours a week do you use this computer? ☐ Up to 4 hours ☐ 13-16 hours
☐ 5-8 hours ☐ 17-20 hours
☐ 9-12 hours ☐ Over 20 hours a week
- Q18 What inhibits your use of this computer? *(Tick all that apply)* ☐ Other people using it ☐ The computer is too old so can't run the software I need
☐ Social life ☐ The computer does not have the software I need
☐ Too tired after work/study ☐ I dislike using computers
☐ Too expensive to connect to the Internet
- Q19 Where would you prefer to use a computer? ☐ At home ☐ At work
☐ At the University
- Q20 Please add any comments you would like to make about using a non-university computer here.

Appendix 2 Collated Responses to Questionnaire

284 responses

1 Which University academic School are you studying in?	Count	Ratio
Applied Science – SAS	21	7.39%
Art and Design – SAD	2	0.7%
Business – WBS	121	42.61%
Computing and Information Technology – SCIT	8	2.81%
Education – SED	39	13.73%
Engineering and the Built Environment – SEBE	4	1.4%
Health – SOH	14	4.92%
Humanities Languages and Social Sciences – SHLSS	37	13.38%
Sport Performing Arts and Leisure – SSPAL	38	13.03%
	Total	284 100%

Question 2 relates to Postcode and is not included in this report.

3 Your level and mode of study:	Count	Ratio
Level 1 Full time	62	21.83%
Level 1 Part Time	6	2.11%
Level 2 Full time	49	17.25%
Level 2 Part Time	3	1.06%
Level 3 Full time	138	48.59%
Level 3 Part Time	7	2.46%
Postgraduate Full time	14	4.93%
Postgraduate Part Time	5	1.76%
	Average	3.88 N/A
	Total selections	284 N/A
	Total Responses	284

4 Your age group:	Count	Ratio
18-21	132	47.48%
22-25	80	28.78%
26-30	26	9.35%
31-35	16	5.76%
36-40	13	4.68%
Over 41	11	3.96%
	Average	2.03 N/A
	Total selections	278 N/A
	Total Responses	278

5 Which qualifications have you attained before coming to university?	Count	Ratio
A-Levels	148	46.11%
HND/HNC	32	9.97%
Access Course	23	7.17%
Other	118	36.76%
Average	2.35	N/A
Total selections	321	N/A
Total Responses	284	

6 How many children under 16 years live in your house?	Count	Ratio
None	205	72.44%
One	44	15.55%
Two	22	7.77%
Three	9	3.18%
Four or more	3	1.06%
Average	1.45	N/A
Total selections	283	N/A
Total Responses	283	

7 Do you own a Personal Computer or Apple Macintosh?	Count	Ratio
PC	255	90.11%
Apple Macintosh	1	0.35%
No	27	9.54%
Average	1.19	N/A
Total selections	283	N/A
Total Responses	283	

8 Do you have access to a computer when not at the University?	Count	Ratio
PC	14	50%
Apple Macintosh	0	0%
No	14	50%
Average	2	N/A
Total selections	28	N/A
Total Responses	28	

9 How old is this computer?		Count	Ratio
Less than one year		75	27.99%
Between 1 and 3 years		138	51.49%
Between 4 and 5 years		25	9.33%
Over 5 years		19	7.09%
Don't know		11	4.1%
	Average	2.08	N/A
	Total selections	268	N/A
	Total Responses	268	

10 Does this computer have access to the Internet?		Count	Ratio
Yes, Modem connection		171	64.29%
Yes, Broadband connection		38	14.29%
Yes, unsure of connection		18	6.77%
No		39	14.66%
	Average	1.72	N/A
	Total selections	266	N/A
	Total Responses	266	

11 Who uses this computer the most? (Tick one only)		Count	Ratio
You		221	82.77%
Your Partner		8	3%
Children		15	5.62%
Other person/people		23	8.61%
	Average	1.4	N/A
	Total selections	267	N/A
	Total Responses	267	

12 What is this computer generally used for (all users)? (Tick all that apply)		Count	Ratio
Games		83	9.66%
E-mail		173	20.14%
Web Browsing		163	18.98%
Word Processing		237	27.59%
Helping with studies		203	23.63%
	Average	3.35	N/A
	Total selections	859	N/A
	Total Responses	267	

13	Would you access module support materials from outside the University via the Internet if they were available?	Count	Ratio
	Yes	85	31.6%
	No	5	1.86%
	I already do	179	66.54%
	Average	2.35	N/A
	Total selections	269	N/A
	Total Responses	269	

14	If you already access module support material (such as WOLF) via the Internet, how often do you do this?	Count	Ratio
	5 days a week or more	13	7.26%
	2-4 days a week	85	47.49%
	One day a week	58	32.4%
	Less than one day a week	23	12.85%
	Average	2.51	N/A
	Total selections	179	N/A
	Total Responses	179	

15	Which of the following do you personally use from outside of the University? (Tick all that apply)	Count	Ratio
	E-mail	206	20.83%
	Word Processing software	232	23.46%
	Internet	219	22.14%
	Spreadsheets	118	11.93%
	Databases	85	8.59%
	PowerPoint	129	13.04%
	Average	3.03	N/A
	Total selections	989	N/A
	Total Responses	262	

16	Where do you use a computer to help with your studies? (Tick all that apply)	Count	Ratio
	At the University	235	41.81%
	At home	250	44.48%
	At work	28	4.98%
	At a friends house	23	4.09%
	Public access point (e.g. local library, Internet café etc.)	26	4.63%
	Average	1.85	N/A
	Total selections	562	N/A
	Total Responses	282	

17	How often is this computer available for your use?	Count	Ratio
	Whenever I want it	241	85.46%
	When I can arrange it with the owner	7	2.48%
	After another person has finished using it	32	11.35%
	After children have gone to bed	2	0.71%
	Average	1.27	N/A
	Total selections	282	N/A
	Total Responses	282	

18	How many hours a week do you use this computer?	Count	Ratio
	Up to 4 hours	32	11.43%
	5-8 hours	70	25%
	9-12 hours	57	20.36%
	13-16 hours	43	15.36%
	17-20 hours	30	10.71%
	Over 20 hours a week	48	17.14%
	Average	3.4	N/A
	Total selections	280	N/A
	Total Responses	280	

19	What inhibits your use of this computer? (Tick all that apply)	Count	Ratio
	Other people using it	117	25.43%
	Social life	107	23.26%
	Too tired after work/study	161	35%
	Too expensive to connect to the Internet	37	8.04%
	The computer is too old so can't run the software I need	11	2.39%
	The computer does not have the software I need	17	3.7%
	I dislike using computers	10	2.17%
	Average	2.58	N/A
	Total selections	460	N/A
	Total Responses	257	

20	Where would you prefer to use a computer?	Count	Ratio
	At Home	229	81.49%
	At work	4	1.42%
	At the University	48	17.08%
	Average	1.36	N/A
	Total selections	281	N/A
	Total Responses	281	