Students as information and ICT users

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Promises, promises, promises, I heard an exasperated teacher say as I entered the conference room. I was recently at the East Asia Council of Overseas Schools teachers' conference, held in Manila, Philippines. The conference theme "Journeys of Vision and Light" focused on opportunity and action, dreams and experiences, and the shaping and leading of learning in 21st century schools. It was clearly evident that central to this journey was the role of information technology, and I sensed a little frustration with this one teacher's experience. On the one hand, there is the promise of integrating and using information technology to enhance learning outcomes. On the other, there is the challenge of rethinking and reshaping pedagogy to enable these outcomes.

I was motivated to explore the promise a little more, and found an early report published by the ACT Department of Education & Training and Children's, Youth & Family Services Bureau in 1996. It presented a concise summary, available at http://learnit.edu.au/, of the potential outcomes of information technology, including to:

- provide the flexibility to meet the individual needs and abilities of each student
- reduce the risk of failure at school
- provide students with immediate access to richer source materials
- present information in new, relevant ways which help students to understand, assimilate and use it more readily
- motivate and stimulate learning
- enhance learning for students with special needs
- motivate students to try out new ideas and to take risks
- encourage analytical and divergent thinking
- encourage teachers to take a fresh look at how they teach and the ways in which students learn
- help students learn when used in well-designed, meaningful tasks and activities
- offer potential for effective group work.

Ten years down the track, it is useful and appropriate that we reflect on how far we have come. What differences can we see today? It would seem that we have learned a great deal about achieving such outcomes. Certainly there is accumulating evidence that information technology impacts on achievement, that it can contribute to the development of self-confidence and self-esteem, and play a role in the development of students as problem solvers and critical thinkers. We have also learned that these important outcomes are not easy to achieve, and that it does not happen simply by making such technology available to teachers and students. We continue to realise that using information technology to enhance learning poses some significant questions that are the foundation of quality teaching and learning. These questions include:
School libraries as flexible and dynamic learning laboratories... that’s what Aussie kids want

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A dynamic and effective library is essential if high quality teaching and learning is to occur in a school. The teacher-librarian has a leadership role to play in the development of students’ information literacy and in the management of learning resources. 

While school libraries have traditionally and consciously tried to service the needs of their community, with the information world becoming increasingly driven by access to a range of information and communication technologies (ICTs) and digital information and services, our students as learners require greater access to an information hub that is flexible, dynamic and responsive in meeting their needs.

The digital demands placed on students is being fuelled by the increasing number of Australian homes going online, and teachers and teacher-librarians need to be mindful of the changing needs and priorities of students as information users, both at school and at home. Recent studies have shown that students are able to articulate their needs, concerns and expectations of ICT access and use at school [Todd, 2004; OCLC, 2005]. The US study, The digital disconnect warns educators that we must listen to the: 

...large numbers of students [who] say they are changing because of their out-of-school use of the Internet—and their reliance on it. Internet-savvy students are coming to school with different expectations, different skills, and access to different resources... Students are frustrated and increasingly dissatisfied by the digital disconnect they are experiencing at school. 

(Levin and Atash, 2002, p. 1)

A recent study of 46 public schools in Queensland and Victoria by the author (Hay 2004-2005) found that what students view as important about
school library help are significantly different to the views of their teachers and teacher-librarians. Of particular note were the differences between student and staff perceptions of the support the school library provides on information and computer technologies (ICTs), and access to digital resources and provision of information services. This paper presents some key findings of the comparative analysis of student, teacher and teacher-librarian responses from the Student learning through Australian school libraries project (May 2004-2005), and argues that schools need to make a conscious effort to re-engineer their libraries as dynamic and flexible learning laboratories to support the demands placed on students as information and ICT users, both at school and when they are working independently from home.

Background to the study
The Student learning through Australian school libraries project asked Year 5–12 students from 46 metropolitan and regional public schools in Queensland and Victoria to identify how their school library has helped them with their learning. An assumption of this study was that a school library program that is adequately staffed, resourced, and funded can lead to higher student achievement regardless of the socioeconomic or educational levels of the community. (School libraries work!, 2004, p. 3). Therefore, the schools selected for this study were required to demonstrate the hallmarks of an effective school library program based on three key areas: support of teaching and learning; effective resourcing of the curriculum; and providing a learning environment. (Table 1)

Two web-based Impacts on learning survey instruments were designed to collect data, one for students and the second for teaching staff. These instruments consisted of Likert responses to 48 statements of helps, based on the Ohio study’s 48 statements of helps (Todd, Kuhlthau & OELMA, 2004) and included an open-ended critical incident question asking students to recount a recent experience when their school library helped them with their learning. The 48 statements were grouped according to seven different blocks of help:

1. How helpful the school library is with getting information you need (GETTING INFORMATION)
2. How helpful the school library is with using the information to complete your school work (USING INFORMATION)
3. How helpful the school library is with your school work in general (KNOWLEDGE)
4. How helpful the school library is with using computers in the library, at school, and at home (COMPUTING)
5. How helpful the school library is to you with your general reading interests (READING)
6. How helpful the school library is to you when you are not at school (INDEPENDENCE)
7. Some general points about the library and your learning (ACADEMIC ACHIEVEMENT)

For each of the 48 statements in the survey, students were asked to select a rating from a five-point scale on how much they perceived the school library had helped them with each statement (Figure 1). For the purposes of statistical data analysis, the following values were used to code each rating:

4 = most helpful
3 = quite helpful
2 = some help
1 = a little help
0 = does not apply

Figure 1:

An additional demographic question was introduced to the Australian version of the student Impacts on learning survey instrument. This question asked students to identify whether they did or did not have access to a computer and Internet at home (Q.02). This additional variable was designed to test for significant differences (if any) between those with physical access to ICTs at home versus those without access to a computer and/or the Internet in the home.

The survey of teaching staff asked teachers and teacher-librarians in these 46 schools to rate how much they believed their school library supports their students’ learning across 48 statements of help. Forty-six of the 48 statements of help were common to both groups. Student, teacher and teacher-librarian responses to the 46 common statements form the basis of the comparative analysis in this paper, the results of which are further illustrated by an analysis of student voice responses with regard to ICT access and use.

Demographics
Of the 46 schools in the sample, 53% were secondary schools and 45% primary, with just one school a senior secondary school (Years 11–12 only). The quantitative findings and conclusions are based on a data set of 6,718 valid student responses, and 525 teacher and 51 teacher-librarian responses. Students from schools within a large metropolitan centre totalled 39%, and 41% of students attended schools in regional Australia. The majority of the student sample consisted of 11-15 years age range (78.5%), with 13.1% of students 16 years and over, and students aged 9-10 making up 8.0% of the total sample.

The difference between the numbers of students with computer/internet access at home was significant in that the majority of students (80.3% of the total student sample) had access to both a PC and the internet at home, whilst a further 11.3% had access to a computer with no internet connection, and 8.4% of the students had no access to any computer or internet in the home. This demographic confirms that Internet-savy students are becoming
HALLMARKS OF AN EFFECTIVE SCHOOL LIBRARY PROGRAM*

CRITERIA 1 – Supporting learning and teaching

The school library effectively contributes to the school's program for integrating the development of information literacy and ICT literacy, and works with teachers to support the learning needs of students:

- by developing school library policies and programs that reflect the philosophy, goals, policies and priorities of the school community and education system
- by providing time, space, electronic, physical and human resources for resource-based learning activities
- by providing a school-wide program that addresses information literacy and ICT literacy skills development across key learning areas
- by having the teacher-librarian collaboratively plan, implement and evaluate with teachers to expose students to resource-based inquiry, and process learning through thinking and problem solving activities
- by applying assessment processes to provide evidence of student progress, and promoting reflective practice to improve learning and teaching
- through engaging teachers and students in a range of literacy and literature-based activities to promote free voluntary reading and foster a love of literature
- by providing training opportunities for teachers in the use of new information resources and ICTs and their use in curriculum contexts.

CRITERIA 2 – Resourcing the curriculum

The school library provides a relevant, dynamic and responsive collection of information resources to support the school curriculum. It facilitates access to information through school library systems and services:

- by providing teachers and students with up-to-date resources in a variety of media formats and readiness levels that are aligned with the curriculum
- by providing users with a range of access services through library and information management systems such as automated library catalogues, intranets, web pages, resource lists, etc.
- by continually monitoring collections and developing directions and priority areas to effectively resource the curriculum within budget targets
- by providing access to information resources beyond the existing school based collection, including the use of technologies to acquire and disseminate information; the school library functions as a gateway to information, e.g. Internet resources, resource sharing networks
- by ensuring that assistance is available to teachers and students in using information systems and ICTs, including clear and inviting signage and navigation instructions.

CRITERIA 3 – Providing a learning environment

The school library acts as the information centre or hub of the school:

- by providing adequate space and facilities to accommodate users, information resources, equipment and ICT systems
- by providing space and facilities that suit resource based learning and teaching programs
- by developing activities to promote the use of information resources and services for both curriculum and recreational purposes, including independent reading, viewing and listening, and literature based initiatives
- by providing access to a resource-based learning environment that is open and staffed adequately to accommodate class groups, small groups and individuals; outside of normal class hours where appropriate (e.g. before/after school, lunch, etc).

Table 1. Developed and validated by an Australian consultative panel of school library practitioners, academics and consultants.

Comparative analysis of student, teacher and teacher-librarian responses

Analysis of Variance (ANOVA) tests using SPSS (Statistical Package for the social sciences) Version 13.0 for Windows were conducted to identify any significant differences between the mean scores for the 46 common statements across all seven blocks of school library help between the...
student, teacher and teacher-librarian groups. Comparative analysis of the overall ranking for each of the seven blocks according to the means obtained by students, teachers and teacher-librarians. Table 2 and Table 3 highlight a mismatch between the groups' ratings of forms of school library help they see as being most helpful.

Of particular note are the results for those statements of school library help involving computer and Internet use (Block 4). While students ranked the school library's contribution as the most important out of all seven blocks in supporting their learning, both the teacher and teacher-librarian groups perceived the school library as being the least helpful in supporting students' learning.

Table 4 presents a summary of key differences between the ratings of students, teachers and teacher-librarians across select statements from Blocks 1, 4, and 6, that relate specifically to ICT access and use. Three of the statements within Block 4 were rated by the students as their top three out of all the 46 common statements of help. In order of most helpful as rated by the students in supporting their learning these ratings included:

1st – Q43. Computers have helped (me/students) find information inside and outside the school library (mean = 2.85), compared to a teacher mean of 1.55 (ranked 46th) and teacher-librarian mean of 1.35 (43rd).

2nd – Q41. Computers in the school library have helped (me/students) do (my/their) school work better (mean =2.81), compared to a teacher mean of 1.64 (ranked 45th) and teacher-librarian mean of 1.37 (40th).

3rd – Q46. Computer programs (like PowerPoint, Word, Excel) in the school library have helped (me/students) do (my/their) school work (mean=2.72), compared to a teacher mean of 1.90 (ranked 35th) and teacher-librarian mean of 1.34 (44th).

While the students rated the above forms of school library help within the quite helpful range, the teachers and teacher-librarians perceived the school library as providing students with only a little help. While not as polarised as the above, a comparison of the following additional statements from Block 4 contributes to this emerging pattern of non-alignment between student and teacher/teacher-librarian perceptions with regard to school library help:

15th – Q44. The school library has helped (me/students) search the Internet better (student mean =2.46), compared to a teacher mean of 1.75 (ranked 43rd) and teacher-librarian mean of 1.42 (39th).

17th – Q47. The school library has helped (me/students) feel better about using computers to do (my/their) school work (student mean=2.42), compared to a teacher mean of 1.87 (ranked 40th) and teacher-librarian mean of 1.37 (40th).
<table>
<thead>
<tr>
<th>Common statements of help from blocks 1, 4 &amp; 6</th>
<th>ALL students mean</th>
<th>ALL students ranking</th>
<th>Teachers mean</th>
<th>Teachers ranking</th>
<th>Teacher-librarians mean</th>
<th>Teacher-librarians ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>043. Computers have helped (me/students) find information inside and outside the school library</td>
<td>2.65</td>
<td>1st</td>
<td>1.55</td>
<td>46th</td>
<td>1.35</td>
<td>43rd</td>
</tr>
<tr>
<td>041. Computers in the school library have helped (me/students) do (my/their) school work better</td>
<td>2.81</td>
<td>2nd</td>
<td>1.64</td>
<td>45th</td>
<td>1.37</td>
<td>40th</td>
</tr>
<tr>
<td>046. Computer programs (like PowerPoint, Word, Excel) in the school library have helped (me/students) do (my/their) school work</td>
<td>2.72</td>
<td>3rd</td>
<td>1.90</td>
<td>35th</td>
<td>1.34</td>
<td>44th</td>
</tr>
<tr>
<td>013. The school library has helped (me/students) find different sources of information (such as books, magazines, CDs, websites, videos) for (my/their) topics</td>
<td>2.66</td>
<td>7th</td>
<td>3.48</td>
<td>1st</td>
<td>3.71</td>
<td>1st</td>
</tr>
<tr>
<td>021. The school library has helped (me/students) know how to use the different kinds of sources (such as books, magazines, CDs, websites, videos)</td>
<td>2.57</td>
<td>11th</td>
<td>3.37</td>
<td>3rd</td>
<td>3.62</td>
<td>3rd</td>
</tr>
<tr>
<td>044. The school library has helped (me/students) snatch the internet batter</td>
<td>2.46</td>
<td>15th</td>
<td>1.75</td>
<td>43rd</td>
<td>1.42</td>
<td>39th</td>
</tr>
<tr>
<td>047. The school library has helped (me/students) feel better about using computers to do (my/their) school work</td>
<td>2.42</td>
<td>17th</td>
<td>1.87</td>
<td>40th</td>
<td>1.37</td>
<td>40th</td>
</tr>
<tr>
<td>014. The school library has helped (me/students) know when ((my/their) find good information</td>
<td>2.37</td>
<td>19th</td>
<td>2.99</td>
<td>8th</td>
<td>3.35</td>
<td>7th</td>
</tr>
<tr>
<td>016. The school library has helped (me/students) feel better about finding information</td>
<td>2.37</td>
<td>19th</td>
<td>3.15</td>
<td>7th</td>
<td>3.43</td>
<td>4th</td>
</tr>
<tr>
<td>015. The school library has helped (me/students) find different opinions about (my/their) topics</td>
<td>2.26</td>
<td>24th</td>
<td>2.84</td>
<td>11th</td>
<td>3.24</td>
<td>8th</td>
</tr>
<tr>
<td>064. The school library has helped (me/students) get more organised with (my/their) homework</td>
<td>1.95</td>
<td>44th</td>
<td>2.90</td>
<td>9th</td>
<td>2.65</td>
<td>11th</td>
</tr>
<tr>
<td>055. The school library has helped (me/students) find information even when ((my/they) are not at school</td>
<td>1.85</td>
<td>45th</td>
<td>2.66</td>
<td>17th</td>
<td>2.28</td>
<td>15th</td>
</tr>
<tr>
<td>067. The school library has helped (me/students) when they have a personal issue or concern</td>
<td>1.52</td>
<td>48th</td>
<td>3.26</td>
<td>5th</td>
<td>2.25</td>
<td>16th</td>
</tr>
</tbody>
</table>

Table 1: Comparison of means and rankings of groups per statement.

(A full comparative table of means and rankings obtained by students, teachers and teacher-librarians across all 46 common statements is available at http://ispv.csu.edu.au/research/slasl/docs/scan/compare_means)

In addition, the overall ratings for Block 1 statements concerning different ways the school library helps students getting information, differed significantly between the students and those of their teachers and teacher-librarians. While students did rank these forms of school library assistance as the second most important of all seven blocks (between some help and quite helpful, mean=2.48), both teacher and teacher-librarian groups perceived these as being most helpful to student learning of all seven blocks, with means of 3.21 and 3.45 respectively. A comparison of means and rankings for the statements Q13, Q14, Q15 and Q16 shows that while students do value school library assistance with information access and use, their teachers and teacher-librarians perceive the impact of the school library's instructional intervention in resource-based learning tasks as far more important than assistance with ICT use and access. Furthermore, the statements within Block 5 listed in...
Table 4 demonstrate the significant difference between student and teacher/teacher-librarian perceptions of the impact of school library help outside school hours. These results suggest that the students' needs, expectations and priorities of school library support regarding information and ICT access and use at school are not as clearly understood by their teachers and teacher-librarians as one would expect. This mismatch raises concerns as to whether the voice of these students is being heard, and whether their needs are being met?

The research raises questions about the awareness of teachers with regard to the information and technology needs experienced by their students as learners. It also raises questions about school libraries' analysis of student needs and the development and evaluation of information services in the light of these needs. An analysis of the student qualitative data collected for this study provides further insight into what school library help students need.

In their own words

Of the 3,474 valid student responses to the open ended critical incident question, just over one-fifth of these explicitly stated how the school library has supported students' access to and use of ICTs and digital information resources and services. Student responses were coded according to access to computers and software programs, Internet access and use, access to printing and file transfer and storage facilities, assistance with searching for web resources, and assistance with the creation of digital products for assignment tasks.

No matter what the ICT task, or hardware, services or assistance provided, a common theme that emerged throughout these student voice responses was that students value highly those forms of school library help that are functional, flexible and responsive at the point-of-need. While the open ended critical incident question was designed to elicit examples of quality school library help, some students also used this as an opportunity to air their frustration and dissatisfaction with regard to ICT access and use within their school. A selection of these are included in the following analysis as a means of illustrating the needs, expectations and priorities of students with regard to ICTs, the Internet and effective information use and creation.

Access to computers and a range of software

Just under half of the student responses regarding ICT use and assistance specifically referred to the importance of having access to computers in the school library to complete a broad range of information seeking, information selection, transfer and storage, knowledge creation and production tasks. Having access to computers which can read and open work saved on a variety of media, whether CD-ROM, USB thumb drive or floppy disk, was identified as essential. Seamless and stress free ICT access and use between home and school is also valued by students with internet access at home.

I needed to submit an assignment, but couldn't print it out at home because my printer was experiencing problems. So I e-mailed my work to my school e-mail and then used the school library's printer to print out my work which I then submitted.

(Yr: 10 student)

My printer at home did not work so I transferred the document I needed to print onto a computer and printed it through the library printer.

(Yr: 11)

Student folders on a school server for data storage and provision of school-based email accounts (at least allowing access to free web based email accounts) are viewed as critical by students in assisting with the seamless transfer of and access to files. Being able to access a range of software programs via the school library computers is also valued by students. Because in the majority of schools in this study, the library was seen as the only place in the school which employs an open access policy both during and out of class time. As one senior student concludes of library's facilities, 'Alway being able to have access to the Internet and other relevant computer programs has proved essential, especially in grade 12.'

In other words, it is important for school library PCs to provide access to more than information based software programs and databases. Students need access to programs used in PC labs, particularly those programs used for production, such as web authoring, slideshow and hypermedia software. This is also particularly important for students who either do not have a PC at home or whose home computer does not mirror the full suite of software programs of the school's PCs.

At one point in time I didn't have Dreamweaver and I was doing web design. The school library had this software and through this I was able to do web design out of class until I got Dreamweaver.

(Yr: 10)

Using the 'Inspiration' program to set out a history essay.

(Yr: 11)

The school library has helped me complete most of my assignments, mainly on the computers. Because the computers have many programs that my home computer doesn't, I can spend a lot of time on the Library computers getting my work done.

(Yr: 8)

Access to the Internet and finding quality information

Over one-third of student responses regarding ICT use and assistance referred to the importance of the school library's provision of Internet access in helping them locate relevant information to complete projects across a number of subject areas.

I had my poetry folio assignment for English and I was having a hard time...
on finding the right poems from my topic. The school library helped me by giving me great internet sites. That helped me find great poems which gave me a great start on my assignment. (Yr 10)

I had to do a major research seminar for Modern History and I was able to access the internet at school to get some much needed information that helped me hand in my seminar on time. (Yr 12)

Students also value the school library's support in helping them find quality information on the Internet. Most responses recounting students' recent experiences mentioned the library's leadership in helping students find the right mix of resources, for example:

for my roman project in history and I was really stuck then the librarian showed me a book and a couple of websites that could help. I finished my project and got an A. (Yr 7)

they helped me find cool websites fast i was able to finish my project. (Yr 5)

I was doing a geography project about whales and the library resources helped me find more information in books and in trusted websites. It helped me get a better mark and I understood better. (Yr 8)

The school librarians assisted me, when I was searching for the new car laws that were introduced into xxx. [name of a town]. They helped me search on the internet and even called the council to get first hand information. I was able to achieve an A in this english sec because of their assistance. (Yr 12)

**Importance of the teacher-librarian's instructional intervention**

Student responses also highlighted their appreciation of assistance provided by the teacher-librarian in developing students' search skills, including class based and individual instruction as well as the creation of web based tutorials and guides on selection and use of search engines.

We were doing our Multi Genre Project and had no idea how to research for it so we were taught some tips for researching like keywords and the appropriate search engines for our topics. thanks to that I found quite a few books and good web pages. (Yr 6)

The internet research facilities at the library are useful for many projects. The search engine facilities allow us to get information on a variety of topics quickly and easily. The books and other resources are also helpful. The library staff are always friendly and ready to help. Overall, the school library is a great place to come for research purposes in a variety of subjects. (Yr 8)

Guidance by way of the school library's website was also valued by students, particularly KLA and topic based gateways to pre-selected web resources. Some students also noted the convenience of being able to access this kind of support while working from home as well as at school.

I came to the library to do research on geography, it really helped me as the library had a web page set up for us so we didn't have to look for things ourselves, and it saves us lots of time as well because it's all here on the page they set up. (Yr 9)

I was doing my project at home and I knew that I had used a website at home that was on our school website so I went onto my computer and I went into the website. It was easy to find because I just had to remember what the topic was and I clicked on the picture that the teacher librarian had left there I got the answer and got great marks that I was happy with and so was the teacher. (Yr 6)

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The teacher-librarian’s assistance with selecting appropriate resources, recording relevant information, and organising students’ ideas was also identified as an important form of school library help.

The school library helped me by the librarians teaching us how to take notes better with some of the programs that the library computers have. (Yr 6)

When I needed information about explorers for a project I used the internet in the library and the teachers in the library helped me to search with Google and we found some excellent information that the teacher-librarian printed out so I could use the highlighter to find keywords. (Yr 6)

...and also have learnt what I need to put on my projects instead of copying something our word for word and I have also found some good sites to search on there is also someone there to help you. (Yr 7)

I was doing an assignment on deadly diseases and had to take notes as well as construct a powerpoint. I was not clear on how to operate powerpoint properly and the school library helped me to understand. They helped me on how to take notes efficiently and this resulted in me completing my assignment and achieving a A. (Yr 9)

School library as production facility

Just under 10% of all student voice statements on ICT use and access mentioned school library assistance with the creation of PowerPoint presentations. The teacher-librarian’s assistance in designing and constructing webpages was also valued by students. This demonstrates the significant involvement of teacher-librarians in the organising and presenting phases of the information process.

The library helped me when I learnt how to do power point and then I used it for heaps of other things in and out of school. (Yr 6)

The use of the computers really helped me with my power point presentations. This resulted in winning first place in the power point presentation competition. (Yr 7)

The school library helped me with making a webpage so now I can make webpages! (Yr 7)

Over 11% of student responses regarding ICT use and access stated the imperative of having access to printing facilities to publish assignment work. With most PC labs off limits out of normal class time, students value the flexibility afforded by the school library.

I had to print out an assignment that was on a CD and all the computer rooms where full but the library wasn’t. (Yr 9)

I had an assignment due one morning, my printer at home wasn’t working and the library computers helped me print it out in time. (Yr 9)

I needed to print off a 37-page assignment in colour. The colour printer in the library was much better than my home one. It was good! (Yr 10)

It is also important to note that students without Internet access at home find access to the school library’s printer facilities essential, not just when they need to print their final assignments, but also when they locate web resources to support information tasks, as one Year 8 student commented. Now I can print information I find on the internet and complete my projects at home.

Extended access to school library facilities

Students view before and after school access to the library as an important service. Being given the opportunity to access PCs, printers, the Internet and other resources in the morning before the school day officially begins was mentioned more frequently by students than after-school access.

Some students saw these times as the optimum time to gain access to the technology and resources rather than competing for these facilities during more hectic times such as in class or at lunch time. Students without PC and Internet access at home also valued access as these times.

I had to complete my large English assignment, which was due in the next day. Luckily, the library opened after school until 4pm and we were able to use the computer and complete our assignment at a reasonably high standard. The software and programs installed in on the computer really helped do our assignment much quicker, without wasting valuable time. (Yr 9)

I had a power point presentation to hand in. The teacher-librarian let me in after school and showed me how to create a really good one and how to view it. I was really grateful. (Yr 6)

When the school library was open after school. This was helpful as I could get more help with teachers and have more time on the internet because the Internet wasn’t available to me at home. (Yr 12)

School library helps kids in crisis

Many students recounted times when they had experienced an ICT crisis and the school library became their saviour. Quite often students’ crises were due to lack of time or poor time management, however, last minute technical hitches with computers, printers or Internet access can also create stress for students, and students saw the school library as being the place they could count on.

I was desperate for help. I walked up and asked one of the ladies if they could help me. I hadn’t done some of my homework and I think it was due the next day. They gave me some resources, Internet sites, books, encyclopedias, etc. It actually helped
School library builds kids confidence

The theme of the school library supporting students' affective demands as information users was also illustrated through a number of student voice statements in feelings of confidence, feeling safe in an environment where students felt the school library was dependable, feeling assured that if they have an ICT access problem, or needed assistance with finding or selecting relevant information, or they needed to discuss how they could best present their new learning using a particular software program, the library was viewed as the best place to go to ask for help.

School libraries as learning laboratories

Gone are the days where school libraries can be treated as repositories for cascaded technologies from PC labs, classrooms and staff rooms. The above findings demonstrate an increasing dependence on, and demand for, a school library facility that provides students with access to state of the art technologies, resources and services to support their learning. A recent study of school students' Internet use in the United States highlights the frustrations experienced by students as ICT and information users.

...the most substantial barrier to using the Internet at school is a lack of easy access to it. In many cases, this limited access has to do with a lack of enough Internet connected computers—that are also in working condition—in schools and classrooms.

(Levin and Aradih, 2002, p. 18)

Schools need to address this problem, and the school library provides a realistic and logical solution. As this Australian study has shown, students value the flexibility of access provided by the school library, as well as the expertise of the teacher-librarian as an information and technology specialist who can help meet their needs at the point-of-need. The development of digital library collections with remote access to a school's intranet, along with quality online databases and pre-selected, authoritative digital resources are also becoming increasingly important services provided by teacher-librarians. The findings of this study demonstrates the important role the school library plays in the provision of ICTs and digital resources and services to support student achievement. This is supported by findings from a recent study of Illinois schools (Lance, Rodney & Hamilton-Fennell, 2005, p. xii) which concluded that test scores of students tended to be higher:

- where access to school libraries is more flexibly scheduled
- where school libraries are staffed more fully
- where teacher-librarians spend more time collaborating with classroom teachers,
- where larger collections are available
- where educational technology is more widely available to augment the local collection and, generally, to extend access to online resources into the classroom
- where school libraries are better funded
- where students use school libraries, both individually and in groups, to learn and practise the information literacy skills they will need to excel on tests and as lifelong learners.

Flexibility in the provision of library facilities, specifically in relation to ICT access and information use, is essential in supporting student learning. Students who participated in the Student learning through Australian school libraries project could clearly articulate what forms of school library assistance are critical to their success as information users and learners within the digital age. Schools whose libraries do not fully meet the hallmarks of an effective school library program need to seriously consider how they can re-engineer their school library facilities, staffing, technology and resources to ensure that the school library becomes a fully functional, dynamic and flexible learning laboratory. The library is an information hub that supports the demands placed on students as information and ICT users, both at school and when they are working independently from home. It's what Aussie kids want.

References and further reading


