

Student learning through Australian school libraries Part 2: What students define and value as school library support

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This article is the second part of an extensive report into research by Lyn Hay into the relationship between student learning and school libraries in Australia. It is a replication of the 2003 United States study, *Student Learning through Ohio School Libraries*, conducted by the Centre for International Scholarship in School Libraries (CISSL) at Rutgers, the State University of New Jersey by Dr Ross Todd and Dr Carol Kuhlthau

This is the second of two articles published in *Synergy* presenting findings from the *Student Learning through Australian School Libraries* project which was conducted in July 2004 through to June 2005. The project's methodology, analysis and findings of the quantitative data were published in *Synergy* Volume 3, Issue 2 (Hay, 2005). This study was a replication of the 2003 United States study, *Student Learning through Ohio School Libraries*, conducted by the Center for International Scholarship in School Libraries (CISSL) at Rutgers, the State University of New Jersey (Todd, Kuhlthau & OELMA, 2004). The state of Ohio study was designed to "examine the multi-dimensional dynamics of student learning through effective school libraries, and specifically from the perspective of students" (Todd 2004, p. 1).

The findings of the Australian replication of Todd and Kuhlthau's qualitative *student voice* approach form the basis of this article. A model developed by the researcher to illustrate how students in this Australian study have viewed and valued the contribution of the school library in supporting their learning is presented and the Australian findings are also briefly examined in light of the 'further conceptions of help' which emerged from the original Ohio study to gain a greater understanding of the breadth of school library support (Todd 2004).

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. 6). Thus the schools

selected for this study were required to demonstrate the hallmarks of an effective school library program based on the three key areas: support of teaching and learning; effective resourcing of the curriculum; and providing a learning environment (for a detailed description of the selection criteria, see <<http://isp.g.csu.edu.au/research/slasl/portal/docs/asla/appendixA>>).

Research methodology

Students were asked to complete a web-based *Impacts on Learning Survey* instrument consisting of Likert responses to 48 statements of 'helps', based on the Ohio study's 48 statements of 'helps' (Todd, Kuhlthau & OELMA, 2004), which included an open-ended critical incident question which asked students: "Now, remember one time when the school library really helped you. Write about the help that you got, and what you were able to do because of it".

This question was designed for two reasons:

- 1) to collect examples of students' experiences of school library support to illustrate and expand upon the quantitative results for each of the 48 statements of 'helps'; and
- 2) to capture student perceptions of 'helps' not identified in the 48 statements (Todd, Kuhlthau & OELMA, 2004).

In order to answer the survey questions, students were instructed to think of all the times they have used the school library, including library classes, to support their learning. They were also asked to think about the help they have received from their teacher-librarian, and how this help has benefited them. As per the Ohio study, the collective label 'school libraries' was used to encourage students to think widely of all school library services, rather than focusing solely on the role and/or personality of their teacher librarian (Todd, 2003).

Of the 6718 surveys that were successfully submitted by Australian school students, 5474 of

This is a refereed article.

Table 1: Coding schedule for main categories of school library helps

Code	Type of school library help
Ass	Help completing assignments, projects, research and homework tasks
FI	Help with finding/locating resources/information, print, non-print, digital
Hours	Comments on access to and availability of library facilities, opening times etc
GG	Help in getting a good grade or better marks for schoolwork
EX	Help with exam preparation and study
R	Help with learning/improving reading skills and selecting reading material
Social	Reference to library providing students with social experiences
IU	Helping with using information, eg. taking notes, bibliographies, writing in own words
ORG	Helping students organise themselves and time to complete assignments/project work
DEF	Help with defining project topics
KN	Help with learning, greater understanding, knowledge construction
AFF	Affective support, eg. motivational help, feeling comfortable and confident
Place	Student comments about the library as a positive learning environment

these included a response to the open-ended critical incident question. These responses were saved as a Microsoft Excel workbook along with matching quantitative data sets for each respondent including grade level and qualitative responses to question number 32 of the survey instrument, which asked students to identify two classes where the school library had helped with their learning.

Following a preliminary examination of the 5474 *student voice* responses, key forms of school library *helps* emerged, resulting in the development of a series of school library *help* codes which were used to examine the content of each *student voice* response. Each response was then coded according to one or more of the categories listed in Table 1 (above).

As a result of earlier analysis of student quantitative data which found that students ranked school library help involving computer and Internet use as the most important form of help in supporting their learning (see Hay, 2006), a second level of coding was also developed (Table 2, below) to analyse those *student voice* statements that mentioned information and communication technologies (ICT) and Internet

use in, and ICT support from, the school library in an effort to gain a deeper understanding of what, how and why students value 'ICT help' as most important.

As a result of this second level of coding, over one-fifth of *student voice* responses were found to explicitly state how the school library has supported students' access to and use of ICTs and digital information resources and services. The analysis of these, along with the broader informational and learning categories (identified in Table 1), is presented below.

Findings and discussion

How did the students in this study define school library support? What aspects of school library support did they emphasise as critical to their success as learners? Of the 5474 responses to the open-ended critical incident question, student responses either recounted one specific event detailing how the school library helped them with their learning, or wrote a general comment summarising their overall view on how the school library supports their learning. The majority of responses referred to the school library's help in terms of assistance with completing an assignment

Table 2: Coding schedule for ICT-related categories of school library help

Code	Type of school library help re ICT use/support
PC	Access to and use of computers
WC	Support in webpage creation
Web	Help in finding websites for research
SLW	School library website as a form of help
SW	Access to suite of software programs
PPT	Support in creating/editing Powerpoint presentations
Print	Access to and use of printing facilities
Email	Access to and use of email
SE	Help in using search engines for research
Internet	Access to and use of Internet (when only stated in general terms)
OPS	Help using other presentation software, eg. Word, Hyperstudio, WordArt

... students ranked school library help involving computer and Internet use as the most important form of help in supporting their learning

task, "researching my project on . . ." was a phrase often used by students, or students used more general comments like, "The school library helps me with my school work by . . .".

An analysis of these *student voice* statements provides an insight into what students view as important forms of help, or what forms of help they have valued most based on recent encounters with their school library. It is also important to note that students often used the term "the school library" to represent different aspects of the school library. For example, students used the term "school library" when describing the school library as a *place*, ie. as a learning environment or facility. The term "school library" was also used when recounting students' experiences with *resources* and *information services* and ICT provision of the school library. In addition, this same term often encapsulated school library personnel, ie. the school library as *people*.

As a result of completing the content analysis of these *student voice* statements, an *image* of what the school library might look like in terms of how students view and value the school library began to emerge. This was generated by the

interdisciplinary and interdependent nature of themes and concepts as described by the students in their reflections of the school library. Students used key words and phrases to describe their representations of the school library as place, as people, as resources, as services, as technologies, as processes, and as skills and understandings, all of which became integral to students' learning experiences, and ultimately their academic achievement.

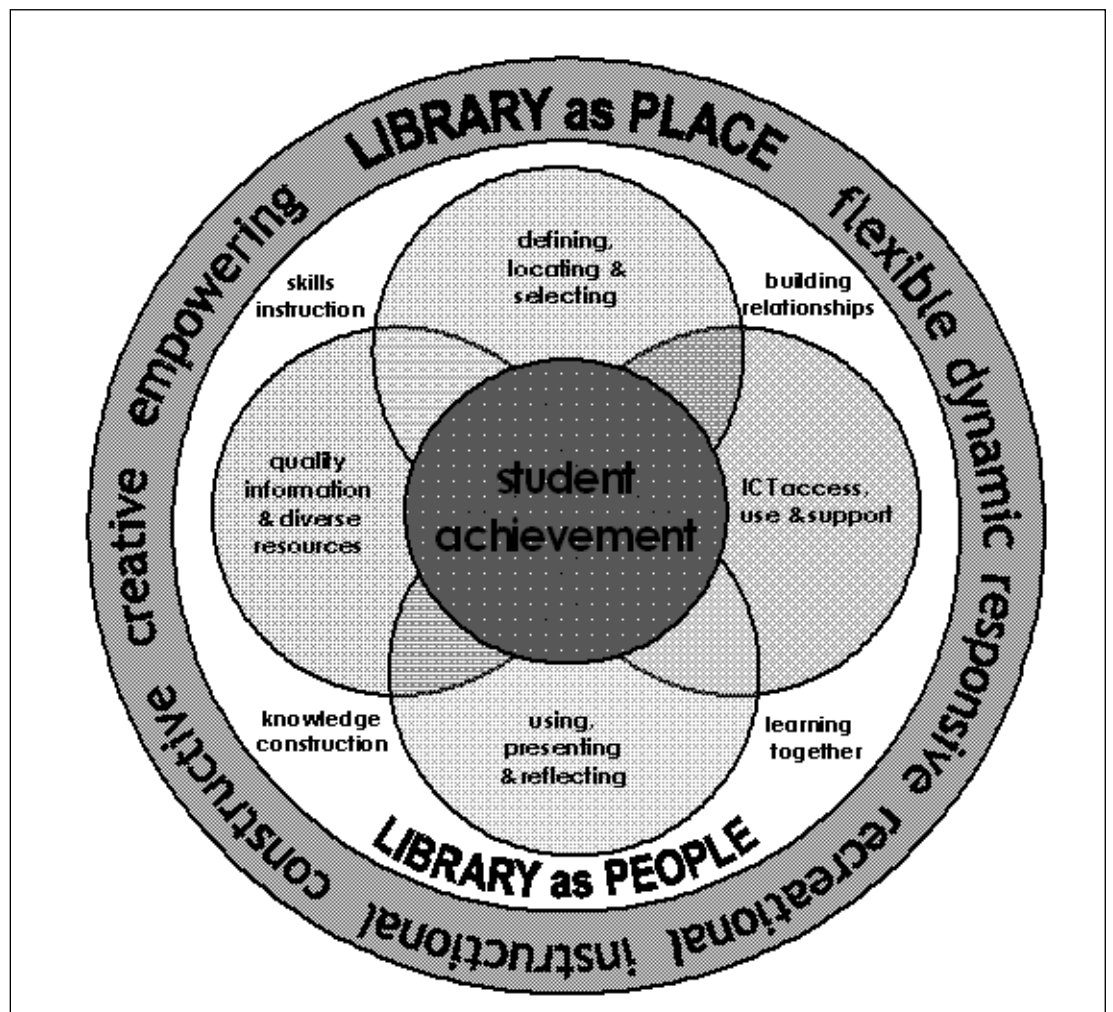
The model below (Figure 1) summarises the key components and interrelationships of the school library as defined and valued by the students in this study.

The following discussion outlines each of these components in detail and draws upon examples of *student voice* responses to illustrate these.

The school library as place

A positive learning environment that supports student learning, where students feel comfortable and can pursue their own information, ICT and recreational interests, was central to students' view of the school library. While many students

Figure 1: Model of how students define the school library in supporting their learning



A positive learning environment that supports student learning, where students feel comfortable and can pursue their own information, ICT and recreational interests, was central to students' view of the school library.

provided a single example of how the school library supported their learning, some students reflected on longer term support provided by the school library, including the physical facility, the provision of a range of resources, as well as the helpfulness of library staff. This is illustrated in the following comment by one Year 7 student:

When i was in grade 5 i started to read more books about ancient times and made me have an interest in ancient Egypt. Later in the year i had a project to do about ancient civilisations and i had to do ancient Egypt. Because of that i had got given extra marks for the amount of information that i had. This year in grade 7 i also had to do an other project on ancient civilisations and this time it was on ancient Ireland which the library had alot of books and information on that was really useful with the amount of things i had gotten out of it. From the books and the very friendly staff in the library at [name of school] we are able to enjoy our time that we've had in our school years and when i talk about we and our i am talking on behalf of many students.

The theme of the school library as students' preferred place to complete project and assignment work resonated in many responses across a number of year levels. Quite often this understanding of what the school library can offer them in terms of access to resources, technologies and expertise was shaped by previous experiences. Many students described the school library as "a great place to do my projects and assignments". The school library was seen by many students as helping make the research process more manageable and achievable, for example:

When I was stuck on an assignment and I didn't have enough information, I started to read some of the books and use the computer and I found that doing research is much easier in the library than in any other classroom. (Year 9)

One day I came to school but forgot to do my history assignment, I went into the library at lunch and the staff helped me find great information on my topic. Through their help it resulted in a mark of 97! I was so grateful for their assistance in helping me. I now always come to the library for help on my assignments. (Year 10)

The school library proved to be a great asset in looking up newspaper articles and information regarding the persuasive sac [School Assessed Coursework] i needed to complete on Steve Irwin earlier on in the year. The library internet resources enabled me to easily find articles online regarding Steve Irwin, and other related information. Having this information so readily at hand including the very comforting and helpful assistance i received from staff members,

allowed me to be fully prepared for my sac, which resulted in a very pleasing mark.

(Year 11)

Some student responses also highlighted the school library as a social environment that supports the building of relationships and interpersonal skills. This was particularly noted by primary school respondents who identified their involvement in library monitor programs as providing social engagement and a sense of belonging to the library as both *place* and *community*, as illustrated by this Year 6 student who was relatively new to this school:

I came to this school in grade 5 and became a library monitor. duty helped me make lots of friends. We talk lots about all the good books we've read. it really helped!

Access to school library facilities

Access to the school library facilities emerged as an important theme for students. Students articulated their appreciation in being provided with access to library facilities during class time to complete project work, for example:

The library helped do my work and assignments a lot easier and better when i have classes in the library. (Year 10)

I was doing a project on the Giant Panda bear and Mrs [TL] helped me find a lot of good and interesting books that helped me get really good marks on my project and Mr [Teacher] who kept on taking us to the library to get the chance to do so. (Year 7)

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 was also valued by students with Internet access at home as illustrated below:

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. (Year 10)

Student folders on a school server for data storage and/or provision of school-based email accounts (or at least allowing access to free web-based email accounts) was also 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

The theme of the school library as students' preferred place to complete project and assignment work resonated in many responses across a number of year levels.

was seen as the only place in the school which employs an 'open access' policy both during class time and out-of-class time. As one senior student concluded:

Always being able to have access to the Internet, and other relevant computer programs has proved essential, especially in grade 12.

It was viewed as important for school library PCs to provide access to more than information-based software programs and databases – students stated they need access to programs used in PC labs, particularly those programs used for production such as web authoring, slideshow and hypermedia software. This was also particularly important for students who either did not have a PC at home or whose home computer did not mirror the full suite of software programs of the school's PCs, for example:

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. (Year 10)

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. (Year 8)

Provision of extended hours

The school library was also identified as a preferred place to go for exam preparation and study time. These student responses frequently mentioned the availability of the library facilities in terms of its operating hours beyond normal class time, eg. before and after school. This was more commonly noted by students completing their senior years of schooling:

There are very many sources which can be easily accessed by the computers which is very helpful in my assignment findings. Being in year 11 it is much more crucial in my assignments and knowing that the library contains many useful sources for all areas of work is a great advantage rather than having to travel to and from my local library. It is a great environment to work in after school to study for upcoming exams etc. (Year 11)

Some students consciously made the link between having access to the library facilities with their academic success, for example:

The library helps me when i have tests and assignments. Being able to come into the library in the morning or a lunch/morning tea to do assignments and homework or to do study for tests has really helped me to achieve better at school. (Year 9)

Year 9 when I had a computer technologies live oral on powerpoint due, the library's computer facilities helped me to have the

research and powerpoint ready for presentation. The internet helped me with the research and the facilities were always open. This assignment got me the highest mark in my school life, thanks to the facilities available I scored an A for management and practical skills in computer technologies. (Year 10)

With regards to ICT access, 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. For some students they 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/or 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. (Year 9)

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. (Year 12)

The school library is central to resource-based and inquiry learning

The majority of student responses referred to school library support in terms of resourcing of, and assistance with assignments, projects, research and homework. The school library was also identified by students in developing a focus for, or 'defining' learning tasks. The teacher-librarian's instructional intervention in helping students develop a focus for project topics as well as helping students 'unpack' the requirements of an assignment question was demonstrated by responses such as the following from a Year 8 student:

When i was doing my science project i didnt really know what i was suppose to do. i asked our librarian if he could explain it to me and tell me what my topic is about and where i can find good information on it. he showed me everything i needed. after he told me everything i finished my project really quickly and got a good mark.

The concept mapping software program, *Inspiration*, was frequently mentioned by students who identified school library help in terms of defining and refining a topic for their project work. Some students provided examples of how the school library's online database collection

i asked our librarian if he could explain it to me and tell me what my topic is about and where i can find good information on it. he showed me everything i needed. after he told me everything i finished my project really quickly and got a good mark.

has supported their learning – for example the following student refers to the *Echo Online* service designed to help students define a topical issue from the media, then form their own opinion or develop an argument on this issue based on a variety of sources:

I had needed information for an argumentative english essay. I had trouble deciding the topics so the library gave me a really good website – echo. Through there, i could build up on my essay and for the essay i got full marks – A. (Year 8 student)

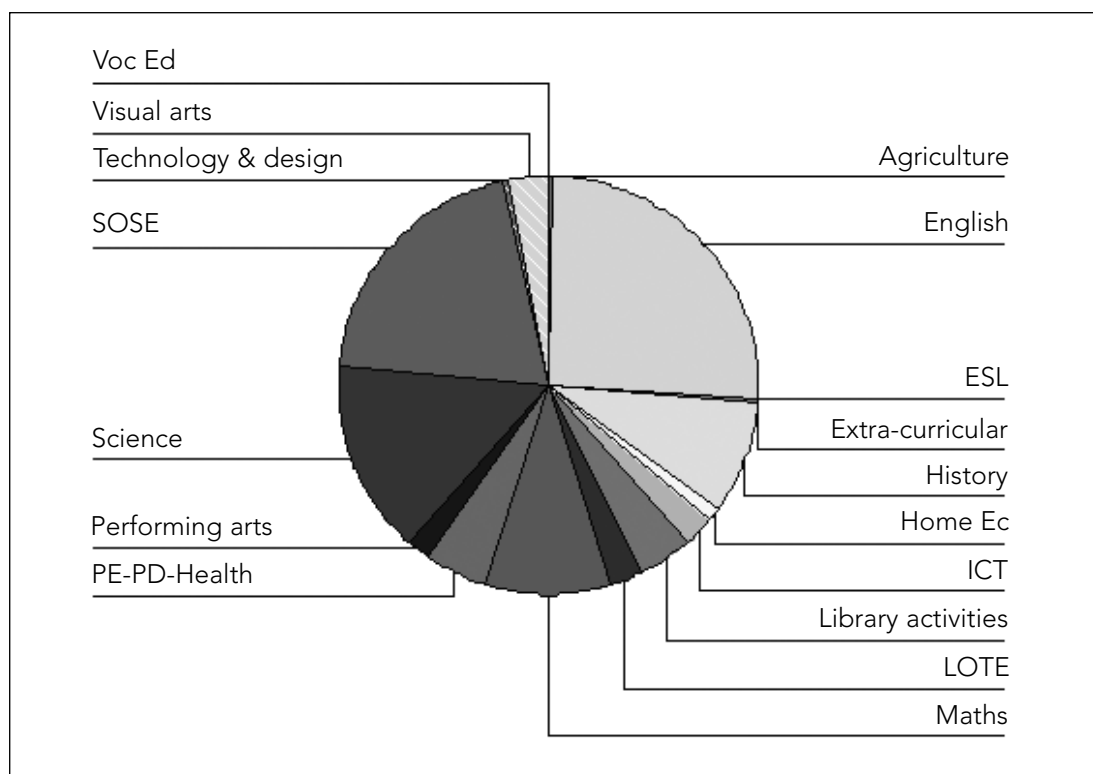
RBL & inquiry tasks across curriculum areas

An analysis of data collected for Question 32 from the student surveys identified those curriculum areas where resource-based and inquiry-based learning tasks are commonly 'set' by classroom teachers. A total of 10,767 valid responses were collected from the student sample (with each student identifying two subject areas where the school library had supported their learning). Some students identified broad curriculum areas such as English or Science, while other students identified more specific subjects such as Biology or Chemistry, with others identifying specific topics taught within subject areas, eg. astronomy, natural disasters, bushrangers. Question 32 responses were therefore coded according to two levels – specific subject and broad curriculum area. An analysis of the broad curriculum areas where the school library has supported students' learning across all grade levels is presented in Figure 2.

Over one quarter of student responses identified English (26%) as the main curriculum area where the school library has been most helpful when working on resource-based or inquiry tasks, followed by Studies of Society and the Environment (SOSE) (19.8); Science (14.7%); Maths (9.6%); and History (8.7%); with PE-PD-Health (4.8%), Library activities, Visual Arts, LOTE, ICT and Performing Arts (2%). The broad curriculum areas of Home Economics, Technology & Design, Agriculture, Extra-Curricular, English as a Second Language (ESL) and Vocation Education were also identified, but less frequently. The broad curriculum area of 'Library activities' was included in this list because just under 10% of the student sample identified library and research-related activities in Question 32 responses without specific mention of a subject or topic area.

The results compiled in Table 3 shed further light on this result, in that both Year 5 and Year 6 student cohorts have identified 'the library' as a subject or class. This suggests that a significant amount of students' resource-based learning activities in the primary school is occurring as part of a formal library instruction program or allocated 'library time'. In addition to this, a number of subjects identified by primary students were cross-disciplinary in nature, for example, students identified subjects such as 'Integrated Studies' or 'Transdisciplinary Studies', where anywhere from two to four 'traditional subjects' are taught as one. There was also some evidence of this in the Middle School years as well, but to a

Figure 2: School library support of student learning across broad curriculum areas



. . . a significant amount of students' resource-based learning activities in the primary school is occurring as part of a formal library instruction program . . .

lesser extent. Another interesting finding is the increase in the use of the school library to complete resource-based and inquiry learning tasks for English from Year 8 through to Year 12.

Students value help finding quality information

The majority of student voice statements described school library assistance with finding relevant resources and quality information to complete an assignment, project work, or homework, or assist in exam preparation, or to complete a particular learning task for class. The majority of students identified the library as the main provider of resources to support their learning, commenting on the range of resource types available, including books, other print material, multimedia and online. Many responses showed that students value access to a diverse range of resource formats:

When we were studying Endangered animals in geography. The library really helped me do my work better because I had access to books, newspaper articles, magazines and the internet. It was really good because I had access to more types of information. (Year 7)

When i was doing my year 8 documentary, i needed a lot of information that i couldnt find on the internet, but we found in the books, and that really helped me get a better mark on it because we had alot of first hand information than just stuff off the internet. (Year 8)

As i dont have the internet at home i used the schools internet access to help me do my assignments. This one time at the library i found a video on the population debate which gave me a whole other perspective on the issue. (Year 11)

Students also acknowledged the teacher-librarian's knowledge and expertise as a resource specialist, as illustrated by these student experiences:

Finding myself unable to locate relevant newspaper articles to use as source documents in a history assignment I turned to one of the librarians for help. She was able to locate numerous hard copies and introduced me to Media on Demand and many other services that our school has available for such things. (Year 9)

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

While 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, these students valued 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 them 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. (Year 7)

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. (Year 8)

Importance of the teacher-librarian's instructional intervention

Student responses also highlighted appreciation of the 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. (Year 6)

Guidance by way of the school library's website was also noted by some students, particularly subject- 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.

Students also described a range of *helps* in terms of effective information use. Students recalled lessons given on note-taking and how to select appropriate information, how to write ideas in your own words, how to correctly acknowledge sources and compile bibliographies, and what constitutes plagiarism – as one Year 7 student stated: "[I] have learnt what i need to put in my projects instead of copying something out word for word". The following statements illustrate how the teacher-librarians have assisted students with selecting appropriate resources, recording relevant information, and organising students' ideas as important forms 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. (Year 9)

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 Mrs xxxxx [TL]

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.

printed out so I could use the highlighter to find keywords. (Year 6)

The library and staff were very helpful when they showed us how to reference properly at the beginning of grade 11. This knowledge on how to do this properly has been helpful, and has carried through for many years, up till now, and still will be of benefit later. They

told us the seriousness of plagiarism and this has benefited us to keep our assignments legitimate and well referenced, with numerous quotes. (Year 12)

Students also need project management support. A number of responses recalled assistance given by the teacher-librarian in helping students organise their time and resources effectively when

Table 3: Results of Question 32 – School library support of specific subjects most commonly cited by students across each grade

Year 5 (1105 responses)	%	Year 6 (1152 responses)	%
Library	13	Library	16
SOSE	13	SOSE	12
Science	11	English	12
Maths	9	Maths	9
English	9	Science	9
IT	8	History	5
Art	7	PE-Sports	5
PE-Sports	6	Art	4
History	5	LOTE	4
Research	5	Reading	4
Year 7 (2310 responses)	%	Year 8 (1839 responses)	%
English	19	English	30
Science	14	Science	19
Maths	13	SOSE	19
SOSE	11	Maths	8
History	9	Geography	6
Geography	6	History	4
PE-Sports	5	LOTE	3
Integrated studies	3	Health-PE	2
LOTE	3	IT	1
Art	3	Home Ec	1
Year 9 (2154 responses)	%	Year 10 (1232 responses)	%
English	32	English	32
SOSE	15	History	13
Science	12	Science	13
History	10	SOSE	12
Maths	9	Maths	7
Geography	6	Geography	4
Health-PE	3	Health-PE	3
LOTE	2	Art	2
Art	1	Business Education	2
Technology & design	1	Home Ec	1
Year 11 (712 responses)	%	Year 12 (262 responses)	%
English	28	English	29
Maths	8	Ancient history	9
Health-PE	6	Biology	7
Biology	6	Maths	7
History	5	Physics	4
Ancient history	4	Science	4
Chemistry	4	Business Education	4
Legal Studies	4	Chemistry	4
SOSE	3	Legal Studies	4
Geography	3	Geography	3

A number of responses recalled assistance given by the teacher-librarian in helping students organise their time and resources effectively . . .

completing an assignment or major project, requiring the development of time management skills. Students described this assistance in terms of being more 'efficient' in terms of research planning, locating and managing resources, selecting appropriate information, and help with 'writing up' their assignment, resulting in successful learning outcomes as illustrate below:

The school library also helps me have a better understanding of assessment tasks and how i should plan my work more thoughtfully. (Year 8)

Students also value the school library's 'just-in-time' help. 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 me a lot! I finished it on time and i got a good mark for it, thanks to some of the ladies that helped me complete it on time. (Year 7)

The school library supports knowledge construction

The student voice responses also provided explicit evidence of the school libraries in this study assisting students in gain a greater understanding of different subject matter as well as skill development. Students acknowledged the role the school library and, in particular, the teacher librarian plays in helping them construct new knowledge:

One time I was doing a project about Tchaikovsky, and the librarians had picked out some books about composers, which really helped my research. Then my presentation was much more informed and I wasn't just reading off notes, because I understood the subject better. (Year 7)

During the research of an English oral I become more interested in my topic as there was a large variety of information and it covered all areas. The books and videos I used provided different opinions in order to help me form my own. (Year 11)

The school library as production facility

Just under 10% of all 'student voice' statements regarding ICT use and access mentioned school library assistance with the creation of Powerpoint presentations. The teacher librarian's assistance in designing and constructing web-pages and using other presentation software to

complete projects was also valued by students. This demonstrates the significant involvement of teacher librarians (in this study) 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. (Year 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. (Year 7)
The school library helped me with making a web page so now i can make webpages!!!! (Year 7)

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."

Students value the school library's contribution to their academic achievement

Over 220 student responses provided specific examples of how different forms of school library help had directly contributed to their academic achievement in terms of 'getting a good grade' or 'a better mark' for school work, for example:

Getting better marks on my school projects, because of the great information books and the fantastic, amount of help from the library workers. (Year 7)

I needed more information and newspaper articles to finish off a project. The Library helped me get relevant information and newspaper articles which helped me in my project and because of the help I received, I acquired a good mark for my project. (Year 9)
My SOSE assignment!!! My topic was VERY difficult to find information but with the assistance of the library I managed to get a very high mark for my assignment. (Year 9)

A number of students articulated a connection between the instructional intervention of the teacher-librarian and student success in terms of completing quality research and receiving a good mark for project work. For some students this intervention occurred at the point-of-need or at a critical time in the research process:

When i had an assignment due the next week and i had no information on my topic and right away at the library i found information on it. With the assistance of the librarians they told me exactly where to look. I got my assignment done and was very pleased with my marks. (Year 8)

When I was doing a assignment on World War II and I needed to find more information, so I went to the library found some books and magazines which helped with my

A number of students articulated a connection between the instructional intervention of the teacher-librarian and student success in terms of completing quality research . . .

assignment a lot. In the end I got a A for it. Without the help from the library resources and staff I don't think I could have obtained the mark I got. (Year 10)

Other examples of teacher-librarians' instructional intervention highlighted the building of relationships between the TL and individual students, where students develop a level of trust in the abilities and willingness of the teacher-librarian to assist them at the point-of-need for future projects, thus developing a longer term resource-based learning partnership:

On my Australian project I couldn't find some certain information and I couldn't finish the project, but then the school librarian showed and helped me for a great deal of time. We found the information and I was able to hand in my project before the due date. I recieved very high marks for this assignment thanks to our school library. (Year 6)

When we were doing our work on current affairs Mrs. [TL] helped me gather information on my topic and because of the help i got from Mrs. [TL] i was able to receive a good mark from Mr. [Teacher] for my work and i thank Mrs. [TL] for her time. So for next time i know that she will always be here to help anyone. (Year 10)

i was on the computer and i was doing my assignment and i couldn't get into encarta and a nice librarian came along, he new everything about encarta and he taught me how to master the program. Even the little things in the library i can always feel safe and confident to ask for help. (Year 10)

The school library builds student confidence

The school library support of the affective needs of students emerged as an important theme throughout the pool of *student voice* responses. Students' used terms like 'more comfortable', 'confident', 'incentive' (to learn) and 'motivated' when describing how the school library has supported their learning. The notion of 'feeling comfortable' with the library as a place and with the library staff was fundamental in supporting students' emotional and psychological needs, which contributed to students' sense of achievement and motivation as learners, as expressed by the following students:

I had help from the school library in finding some information on an assignment for English, they helped me get a better mark, have a better understanding of what i was studying, enjoy what i was studying and become interested in it, because of this I got a better mark. (Year 7)

For a while, I lost interest in reading. I asked the library staff if they could recommend a book, which would suit my interests. This helped rebuild a positive attitude toward reading. (Year 10)

A number of students commented on how the school library has helped them become more confident as information users and learners, as illustrated by these primary and secondary school students' experiences:

When I needed to get some information and it made me feel better so I wasn't confused. (Year 5)

The school library helped me alot in S.O.S.E and English. I feel that the library helped me get better marks in both of these because I nearly failed then the librarian helped me regain my confedence. (Year 8)

The theme of the school library supporting students' affective demands as ICT users was also illustrated in students' statements. Feelings of confidence, feeling safe in an environment where students felt the school library was 'dependable', feeling assured that if they had an ICT access problem, or needed assistance with finding or selecting relevant information, or 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

No matter what the information or ICT task, no matter what resources or hardware or software, no matter what services or assistance was 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.

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. 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. The students in this study identified the school library as a *dynamic and unique place*, compared to classrooms, PC labs and other specialist rooms within the precinct, because of the availability and flexibility of the resources and services of the school library as a facility, and the individualised and customised attention the teacher librarian and library staff could provide students at the *point-of-need*.

The findings of this study also demonstrate the important role the school library plays in the provision of ICTs, and digital resources and services to support student achievement. Of note was the sophisticated development of digital library collections with remote access to a school's intranet along with quality online databases and pre-selected, authoritative digital resources provided by the school library. This is supported

The findings of this study also demonstrate the important role the school library plays in the provision of ICTs, and digital resources and services to support student achievement.

by findings from a recent study of Illinois schools (Lance, Rodney & Hamilton-Pennell, 2005, p. xiii) 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 school 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, and
- where students use school libraries, both individually and in groups, to learn and practice 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 were 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 ‘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.

The findings from this study clearly demonstrate that Australian school libraries can play a critical role in supporting student learning, and attempts to address (in part) Lonsdale’s call that “practitioners in Australia [need] to mount a strong case for recognising the positive impact of school libraries and school librarians on student learning” if school libraries are to survive as an integral part of schooling in the twenty-first century (Lonsdale 2003, p.1).

Australian schools could use the model presented in this article as a lens to evaluate and re-engineer their school library facilities, programs and services in terms of making students’ learning experiences and student achievement central to their purpose, function and engagement with students on a daily basis.

As this research shows, Australian students acknowledge and value the support provided by the school library when their school library responds, engages, extends and empowers their lives as learners in this digital age.

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