BreAkingDOWn BaRRiERS

Eltham College: Linking Communities

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Eltham College is a multi-campus, K–12 Australian school. It has close associations worldwide, principally, in China. Eltham 's Knowledge Network forms the basis of all communications within the College community, including its overseas interests. Knowledge Network contains the Student Learning Management System[SLMS] jointly developed by Eltham and Corskills Australia. SLMS is a total package that includes students' work and resources online, subject information, reporting, and direct teacher/student and teacher/parent contact information. The Senior teacher-librarian has developed an interactive online Information Literacy Skills course for Grades five and six students that links to SLMS.

Introduction

What and Where is Eltham College of Education?

Eltham is a school of about 1500 students from Early Learning - three years old (ELC) to Year 12 (17 to 19 years old). It is situated in a bush setting 25 km north-east of the Melbourne Central Business District in Research, overlooking the city. It takes it name from the former Shire of Eltham, now known as Nillumbik, meaning "shallow earth," in recognition of the Wurundjeri, the original Aboriginal inhabitants. There is a Year 9 campus in the Melbourne Central Business District, a Year 9 program at the Research campus that is expected to move off-site in the near future, a separate Food Technologies campus adjacent to but a considerable distance from the main Research campus, which encompasses a winery, and a pre-school child-care facility in nearby Eltham North. The College has long-established links with sister schools Lu He in Beijing and Yun He in Shanghai, while many of our international students come from Dalian in China. We also have regular student exchanges with Lycee Joffre, in Montpellier, France and Satya Wacana Christian High School in Salatiga, on the Indonesian island of Java.

Eltham is continuing to expand its presence around the world by establishing separate campuses such as Beijing Century Peace Culture and Education Exchange Centre, known as CPCE, in China, which is jointly owned by Eltham College of Education and Maggie Lin, a Chinese national. Students learn English online using a tailor-made package that has been designed and published by the College staff in Research. At the time of writing this paper, Eltham's principal Dr. David Warner, was preparing to sign a similar agreement between Eltham and Cao Yang Number Two High School in Shanghai. Eltham's Library has a presence at all of these locations due to its active participation in the online environment.

"Eltham releases and enhances the talents of the individual. In a safe and caring environment we create a desire for lifelong learning and build pathways to success." This is Eltham's mission statement and it underpins everything we do at the school. This year we are celebrating our 30th year as a fully independent, community-based school. During its brief history, Eltham has always been at the forefront of educational innovation and change. Today we uphold that tradition by continuing to expand and enhance our Knowledge Network, the College's yellow brick road and one of our master keys to the students' future success.

Our school charter recognizes that the world is a rapidly changing place. It states that our responsibility is to teach for the strengths that will enable young people today to learn, live, work and play successfully and with confidence in a global environment of massive change, an environment that is dominated by knowledge and the easy transfer of information.

The pace of change has never been greater than at the present and it seems to us now, that we as educators will never catch up. As a profession though, collectively we do very well. We can't teach our students everything, because as individuals, our knowledge is limited, but we can facilitate the learning that takes place by equipping students with the tools they need to help make each of them a success in their own right.

Australia is now a homogenous and multi-cultural society that is no longer dominated by Anglo-Saxon traditions as it was less than 50 years ago. Our families come from every corner of the world and live side by side in tolerance and harmony. Our culture, particularly in the cities, has become greatly enriched by the influences that immigration brings with it. Eltham 's student and teacher populations reflect this situation.

Many of our students were not born in Australia or are first-generation Australian, and we have a significant number in the Senior school (15 to 18years old) who come to us as International Students, mostly from Asia but also from as far as Finland and South America. A significant proportion of our teaching staff was also not born in Australia. Some are not even Australian citizens. The college even supports the European GAP system by having visiting post-secondary students from Europe and the UK visit and work in our school. Also, at any one time, about one third of our parents will be traveling overseas, usually on business or to visit family and sometimes, just to holiday.

Present and Future Directions

Having taken all of this into account, the College Council decided some years ago that the future direction of information dissemination for the school would be digital. To that end, in partnership with Corskill Australia, Information Eltham was developed. This year, in line with strategic directions, it has undergone a total restructure to become the Knowledge Network. The entire College community, including all of its remote locations, is networked with different user groups having access rights to the parts of the network that allow them to do their job.

When you visit our website as an outsider, you can only see information about the school and the kinds of publicity that you would expect to see on a school website, but as a member of the school community you have access to far more. Students, their families and teachers are connected in a secure, interactive and transparent learning environment. At school, at home, or wherever they can connect to the Internet, our students can access their work. This means that information, resources, worksheets, curriculum, and reports are all available online. Students can communicate with their teachers and fellow students by e-mail and parents, especially those who are working, either at home in Australia or elsewhere, now have the opportunity for daily involvement in their child's learning experiences.

The Library s Role

The Libraries at Eltham play a key role in providing information of an educational nature to the students through the Knowledge Network. This is not necessarily a new concept. Libraries were begun as repositories for information, and in response to the advent of the digital era, libraries are now collect and document information from the Internet. Schools have been using the Internet since 1993/94 in Australia, and creating resources based on this information since that time, including the creation of web pages which document those resources and which direct the user straight to a particular web site. Teacher-librarians have been doing this for some years now and many commercial information services worldwide have information gathering and dissemination as their reason to exist. Eltham's library practices, in this respect, conform to the accepted norms of the developed world. We even make use of a number of these information services in order to enhance information delivery to our community, which, by its very nature, is physically widespread, both within Melbourne and beyond Australia.

Under the direction of a Facilitator of Information Services, we have a team of very dedicated and committed teachers and technicians. Working closely with the library staff, they ensure that the types of library-based information made available to the college community are appropriately placed and are designed within a set of guidelines. That does not mean though that our creativity has been stifled in any way.

Eltham s Online rE-Sources

This year the College has employed a multimedia expert to work half time in the library. Her other role is to tutor our senior school multimedia students. In her library role she liaises closely with subject teachers and the teacher-librarian to produce topic specific "pages" that are published to the Intranet for teachers and students to use.

Library resources are linked directly from the main Knowledge Network page in two ways: a link to the web-based version of *Athena,* the system used by Eltham College, and another link to *rE-Sources*, our electronic resources page. From *rE-Sources,* is a secondary link to web *Athena* and another link to *E-Databases.* These are databases to which the college subscribes or to which it has free access. In this way, the college community can make use of our physical resources; those documented on the *Athena* catalogue and available for use from within the libraries, and virtual resources, and those resources available as web-links from *Athena*, or from the *rE-Sources* page. *rE-Sources* is organized by Key Learning Areas according to the curriculum guidelines of the Victorian Department of Education and Training, which in turn takes its direction from the Commonwealth Department of Education Science and Training (DEST). Teaching at Eltham follows the basic principles established by DEST, as does its reporting structure.

The websites that end up as links from *rE-Sources* are those that we, as a team, consider to be most useful to the age group studying the topic. For example, students at Eltham could cover plate tectonics at any one of, or at all three year levels which study it (5, 8, and 10), so the links need to be appropriately placed. We take referrals from teachers, search for information ourselves, and sometimes students are involved in the selection of web resources. Often they are the ones who determine whether a site is suited to their learning needs or not. They will very soon tell us if they don't understand something or if it does not contain enough information. Under the web designer's guidance, some of our multimedia students are also voluntarily involved in producing our Intranet resources. We encourage this as it hones students' understanding of design and also their ability to select the "good" information from the "mediocre" or "bad." They learn to become selectively critical of information sources and, in return, to accept constructive criticism about their own choices.

As information facilitators to the school community, it would be remiss if a teacher-librarian did not guide students to print resources too. This is done in accordance with classroom teachers' wishes, and as the need arises, but increasingly, students' own preferred operating mode is digital. We are therefore beholden unto them to provide the best we can and to teach them how to find quality information for themselves in the most efficient and effective way possible and in the manner to which they would like to be accustomed.

Information Literacy at Eltham

For the past three years at Eltham, all teaching and non-teaching staff have operated as teams rather than as departments or faculties. There are no designated team leaders and tasks are distributed amongst team members according to interest or ability. As a result of this structure, the library has had to find new ways to communicate with teams rather than with an individual as Head of Department. E-mail has proved invaluable as a communication tool and fortunately the e-mail culture is well entrenched at Eltham .

Prior to my arrival at the school three-and-one-half years ago there was a long tradition of non-communication with library about resource needs. The then departments would simply buy their own resources and library would have to second-guess as far as students' needs were concerned. In line with strategic directions, the library was also slowly becoming digitized, much to the consternation of a large number of teachers who preferred the traditional ways and for whom this change was probably a little challenging. The library was, in fact, a rather unpopular place to be, as there was a perception amongst teachers that books were being sacrificed in favour of digital resources. A reasonable core of Humanities teachers, however, still brought their students in to use the books for research on particular topics and to use

the computers for word processing. At the same time as the library was acquiring its digital resources, students in years 11 and 12 were given their own study facilities and workstations, shared one between two students. Students themselves began to see the library as irrelevant albeit for a much different reason to teachers. All the information they would ever need was now at their fingertips - or so they thought. They forgot about books, they forgot about the online resources the library provided for them on each of their computer desktops (unless they were reminded by teachers to use them), and decided that all information on the Internet must be good, true and correct, and that it was the ultimate resource. Otherwise, why would it be there? After a year or so of observing this behaviour I decided to try and make new inroads into altering the way in which students approached their research tasks and teachers made use of library services.

The process began in mid 2001 by targeting those Humanities teachers who regularly used the library, particularly year seven and eight teachers. They eagerly accepted the offer of having topical web pages constructed, as they were now used to the concept of accessing information from links on the Intranet's Humanities Homepage and of having a teacher-librarian do this work for them. My predecessor, now the Information Services Facilitator, had introduced this service to the school. By persistent communication with individual teachers and by word of mouth from one teacher to the next, the requests made to the library by the end of 2002 to produce resource pages increased to the point where it was becoming difficult for one person to complete them in time for classes to use.

Further observation of students' research behaviour during 2001 revealed that despite being given the best of the available websites to choose from and use, students were still doing time-wasting searches during class time, usually with nothing to show for at then end of one hour. There appeared to be little wrong with their search techniques: they had all the right clues, but they just did not know how to use the best search term, how to narrow down a topic, or how to choose an alternative search term. Many also did not understand how to search a library catalog effectively. They were so used to getting a result, even if inappropriate, when searching on the Internet, using whatever term they thought they should use, that they somehow thought the library catalog would also reveal a separate book for every conceivable topic, as the Internet does.

Contained within Eltham 's strategic directions statement is the value statement "we will develop multi-faceted life long learners by valuing each individual's capacity to reach their full potential through relevant pathways, and their right to have self-directed learning skills and to be excited by learning." In my humble opinion, these students did not have those learning skills. Many were, however, excited by learning because it was increasingly being conducted in their language, computers.

In early 2002 I decided to compile a number of *PowerPoint* presentations that could be shown to a whole group, using a data projector and a portable screen. These were done for years 11 and 12 students studying "Issues in the Media," and for year seven students as an introduction to research facilities in the library prior to their first project sessions. Both presentations were shown to those students in the early part of the year. This made a marked difference on their ability to understand how to go about research in a self-directed way. At various stages throughout the year, as the opportunity arose, segments of these presentations were shown to students again to recap or reinforce a particular aspect of information literacy.

Although the school population was beginning to drift back to the library, during 2002 a number of things happened that had a profound effect on the way the library was viewed by students and teachers. At the end of 2001, it was decided by a group of teachers in the Senior School that year 11 students needed a degree of supervision during their study periods. During the Christmas break a section of library, about the size of a classroom, was reconfigured for this purpose.

Computers were installed and furniture rearranged to accommodate the expected influx. At first there was slow trickle of students but word soon got around that it was actually quite comfortable and that they were welcome to be there, working or not, as long as they kept their noise to a reasonable level. There is now a constant population of students from all levels at that end of the room and in other spare spots about the library, although year 11 students have priority use of the computers in the year 11's area.

Mid way through 2002, two further things happened. Firstly, the Primary (Early Learning–year four), Middle (years five to eight), Year nine, and Senior School (years10-12) were created from what were formerly the Primary and Secondary Schools. This meant that children in grades five and six (10 to 12 years old) now had a place in what was previously the Senior School. Secondly, the Senior library acquired an electronic whyteboard.

Here was an opportunity too good to be missed - a teacher-librarian's dream-come-true. All students from ELC to year six have regular, timetabled library lessons, so it would be a really good idea to have them learn the ways of the Senior School and become comfortable with it before they actually arrived one or two years hence, looking for all the world like lost souls in that huge space. They could also be prepared for doing the types of research expected of them in year seven, without them having to give too much thought as to just how this happens, by being ready-made information literates by the end of year six.

After discussion with the Junior School teacher-librarian, it was decided that alternating classes between Junior and Senior libraries would be a good way to achieve this. Of course the Junior teacher-librarian was only too happy to lighten her teaching load a little. This concept was taken to the Director of Middle School who wholeheartedly agreed with the plan and gave it her blessing. As a result, years five and six students now have full and free access to the Senior library and all its resources. Duty of care prohibits us from allowing younger students to wander the half-kilometer from their end of the school to the senior school unaccompanied, but we have a number of year four children who would gladly make the trip a regular occurrence.

During the second half of 2002, the first batch of grades five and six students began on the "Information Literacy Skills" program using computers as their main tool rather than the booklets they were used to filling in at the Primary library, although A4 sized worksheets were provided. Lessons that had a direct relationship to the topics students were covering in their classroom were devised. Most of them took to the use of computers for this purpose like ducks to water, but it also taught me a few things about the way young children think and learn. Prior to this I had only taught adults and children 12 to 18 years. I had assumed that the interpretive skills of these children were greater than they actually are for that age group, and I discovered that they required very specific instructions in order to complete a task successfully, especially some of the less confident ones. As a consequence of teaching "Information Literacy Skills" to this pilot group of students, we now have some very confident, relaxed year seven students (year six of 2002) who have better research skills and make better use of the library than any of their predecessors. As they progress through their secondary years it will be easier to retain them as library users because they have been made to feel welcome, useful and valued and understand how library resources and staff can be gainfully employed to meet their information needs.

Student Learning Management System

The Student Learning Management System (SLMS) is a product jointly developed by Eltham College of Education and Corskills Australia.. It is a key component of Eltham 's Knowledge Network and forms the backbone of all teaching, learning and reporting in the school. It operates on fairly inexpensive software. For a medium-sized school (in Australia this is about 800 students) the SLMS package is A$3,000 – A$6,000 per year, and the commercial price for *FrontPage* is A$179 per year. Corskills Australia has set the final price for running the complete package at about A$6 to A$8 per person per year.

SLMS is a transparent, easy to use system which contains students' work requirements and resources from year three (eight years old) onwards, gives parents and students access to these materials from any Internet connection in the world, and allows online reporting from teachers directly to parents and students on an ongoing basis. In other words, as a student completes his or her work, the teacher assesses it and the student and parent will see the assessment as soon as the teacher submits it to the system. Parents' e-mail addresses are linked to SLMS so that if a teacher has any concerns about a student's progress or behaviour, they can be notified. Ongoing dialogue between a parent and teacher can be established in this manner if the parent so wishes. Students are electronically excluded from this confidential aspect of the process. A classroom teacher will discuss concerns with individual students when and if this is required. This is usually done in person if the student is present at the school but can also be done via e-mail if a student is off site. All students' e-mail addresses are recorded in the system but they are also included in the internal e-mail contact lists.

Using SLMS: From a Teacher s Perspective.

Each teacher is set up with access to that part of the database which contains the reports of his/her students only. The first part of the reporting process is to write all the necessary data to the database. This is done by following a series of steps. First, a general statement about the subject is written. Expected student outcomes are stated and a short descriptor for each is also given. A statement about methods of assessment is made, and then assessment tasks are recorded. Resources required by students for completion of their assessment tasks are electronically attached along with a brief descriptor for each to help students identify different types of resource, e.g. "Chemical Elements worksheet," "Marie Curie website," "Excel Plant Classification spreadsheet." The last part of the reporting process is the written assessment of students' work. The teacher has the option of working on each student separately and completely, or of addressing each outcome or assessment task one at a time. Samples of a student's work can also be attached to a report so that parents can see exactly what their son or daughter has achieved.

In the classroom the teacher can refer students to particular resources for given tasks. Doing this means that the classroom teacher does not need to make multiple handout sheets for each class. Students can print out information as the need arises for them. Also, a number of rooms throughout the school are set up with interactive whyteboards. Teachers have the ability to visually demonstrate, illustrate, and highlight in a much more efficient manner by simply calling up the required information rather than spending time handing out pieces of paper. Given reliable computer networks, for remote teacher-student contact, there is little difference other than a physical, personal presence. As a visual aid, PowerPoint presentations can be a substitute for explanations that would otherwise be given by the teacher to a class. This would be attached to SLMS as a resource.

Using SLMS: From a Student s Perspective.

Students access their work and associated instruction by entering "Subject Information" and "Coursework." These are used at Eltham as a back up to classroom instruction. We teachers know how easily students can forget or miss important information during lesson time, so at Eltham they now have little or no excuse for not knowing or not being able to find out all they need to know. The students can access this information at any time they are connected to the Intranet or via Internet, if they are off site. "Subject Information" describes to students and their parents the work a student is expected to complete. It lists and describes each of the anticipated outcomes for a student and describes how assessment will be made against those outcomes. It also describes each of the learning activities the student is expected to complete. "Course Information" describes exactly how students are to work and contains the descriptions of, and links to, each of the necessary resources that will be needed for the work requirement.

Using SLMS: From a Parent s Perspective.

Parents are able to see exactly what their children are expected to do, how they are expected to do it, what they are required to use in order to complete their work requirements, and when a work requirement is due for submission. They are able to contact classroom teachers with any concerns they may have about their child's work and they are able to view their child's progress as it is reported. Reporting is continuous. There are no specified dates, as a teacher will report on a child at the end of each unit of work. By their nature, work units are variable and often flexible in order to accommodate individual needs or to work around major school events.

SLMS and Information Literacy

Upon entering directly into the teaching process, rather than being an "add-on" service, the Senior teacher-librarian was automatically committed to using SLMS and contributing to student reporting. I knew what I wanted to achieve, and knew that it had to be possible, but I didn't have the technical expertise to make it work. Together with our technical team's programmer/ advisor, we have arrived at a totally interactive work program that leads students through the basics of "Information Literacy Skills." At the year five level, it takes students through all the steps of becoming a confident print and online researcher for that age group and at the year six level, reinforces the things learned the year before. It also extends those students enough so that by the time they enter year seven, the beginning of Secondary schooling in

Victoria, they should have a fairly good understanding of the best methods needed to find the right kinds of information for their individual needs.

The work program, which is linked to SLMS as resources for assessment tasks and appears to the student as a file connected to their Coursework, is designed in a way that allows the students to discover resources about the topics they are or soon will be studying with their classroom teacher. This gives students a connection with what they are learning and adds meaning for them to a process that could otherwise be dull and uninteresting. For many it poses a challenge, as some of the tasks are deliberately sparse on explanation. This means that the student has to interpret the information presented or find it by using observation and deduction. In this way there should be minimal reliance on teacher input. The teacher-librarian's role during the discovery process should be that of advisor rather than of "font of all knowledge." Students are therefore encouraged to think carefully about what they are doing as opposed to rapidly firing off in all directions without too much consideration for what needs to be achieved.

If we use the analogy of a picture, we see an overall scene, but we need to interpret the meanings behind some of the elements within its composition. We can sometimes go through life missing the smaller things because we don't know how to see the picture properly. These interactive "Information Literacy Skills" tasks are designed to help students see the picture properly. First students are given the overall scene, then they are asked to break that scene down into its smaller components. Using each of the pieces, they can rebuild the picture with some basic understanding of why it is made the way it is. Hopefully, by doing this, they will be able to assimilate these different methods of breaking up and reassembling the pictures into their daily lives, be it school or elsewhere, to help them see and to make them proficient and successful lifelong learners.

The "Information Literacy Skills" courses are structured for a normal classroom situation where sufficient computers are needed for students to work in pairs. An interactive whyteboard or data projector and screen are highly desirable but not absolutely necessary if networked computers are available.

Information Literacy Worksheets

Using whichever method is available, at Eltham we use the interactive whyteboard, students are led through the background information for a topic. For example, if the class is being taught how to use an OPAC, the steps one would need to follow to find a particular type of resource could be demonstrated to the group. The students would then sit down at a computer, access their SLMS profile, download the "worksheet" and make their way through it. Since direct teacher-to-class contact time is limited to about 50 minutes per fortnight, students are expected to complete the worksheets for homework. This can be done from anywhere where the student is able to access the school Intranet (any Internet-linked computer).

When in class the students should be encouraged to work in pairs as they tend to grasp concepts a little more easily if they are able to discuss the work amongst themselves as they go along. In most instances a topic can take a number of lessons to complete, so students are told to work only to a certain point, whereupon the system will allow partially completed work to be saved. When the topic is fully covered and the student is satisfied that the task is correct and complete, the form can be submitted to the teacher for assessment. At any time during the process, students are free to ask questions, seek guidance from the teacher or parents, help each other, or work alone. Parents are welcome to participate in the homework process, as it will allow them to see the kinds of resources the College offers its students and how these resources will benefit their children in later years of their schooling. To set up a course for a student who is off campus, or for a remote, affiliated group, only minor changes to the current setup would be required, for example, the aforementioned *PowerPoint* Presentation to take the place of direct teacher instructions.

Information Literacy Worksheets: Designing the Form

When designing the tasks, instructions need to be clear and concise. Rather than design something you think will work, design a task that can be accomplished. In other words, once the "worksheet is drafted," complete the task for yourself, as you would expect your students to carry it out. Rethink the parts that don't or can't work.

The Worksheet form is designed using Microsoft *FrontPage.* Teacher's instructions and/or questions are entered directly onto the page while textboxes are created in areas where a student is required to enter data. This is not unlike creating a Word document except that where you would place a dotted line in Word to indicate that input is required, in the form you would insert a text box or scrolling text box. Once complete, the form needs to be coded to allow it to interface with a database. When a student enters data into the form fields, this data writes to the correct database field. We use asp coding to a Microsoft *Access* database.

Linking the Worksheet to SLMS

When the database is set up it is ready for use and linking to SLMS. Files linked to SLMS can be located anywhere on the network, even on the C:/ drive of a workstation. At Eltham, however, the network administrators have decided to keep data together, just for tidy management. Once a student has submitted work, the teacher is automatically alerted by e-mail that a particular student's work is ready for assessment. Submitted forms are stored in their own folder where they can be accessed and assessed by the teacher. The teacher is then able to commit a report to the student's profile on SLMS. In the same way that the Eltham College community benefits from the technologies developed for The Knowledge Network, SLMS, and in a small way, the technology behind the Online Information Literacy program, so too can other groups, as can be seen by our English language development links with CPCE in Beijing. We would like to extend this offer to other interested organizations worldwide to form partnerships that develop a cross fertilization of cultures, information and online learning.

Biographical Note

Marie O'Brien is the Senior teacher-librarian at Eltham College of Education. She has taught in schools across the Australian State of Victoria since 1976 and has also worked in industry. She has recently developed an online, interactive Information Literacy Skills program for 10 to 12 year-olds and several years ago established a library-based online reference web. She is currently completing a computer applications and programming course at Swinburne University. Originally trained at RMIT in Fashion Design, she later entered teaching. She has undertaken post-graduate studies in Careers Education and teacher-librarianship. Marie has been a teacher-librarian for eight years.