

## **DEVELOPING INFORMATION LITERACY IN A SECONDARY OPEN AND DISTANCE EDUCATION ENVIRONMENT IN AUSTRALIA**

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The Northern Territory Open Education Centre (NTOEC) provides secondary education at a distance for isolated students, second chance students who have left school and wish to upgrade their qualifications, students at other schools and students in remote Aboriginal communities. The school has an enrolment of approximately 845 students which can be broken up into the following categories:

School-aged	146
Independent	164
Aboriginal School- based	241
Dual Enrolment	294

These numbers vary over the year. Our students come from a variety of places including Indonesia, Fiji, Vanuatu, UK, Greece, Rome, Ireland, Mexico, Arabia and Papua New Guinea.

The NTOEC library services our distance students as well as about 84 staff in the building (including the Open Learning Support Unit).

The WWW format has created new possibilities for teaching, learning and communication. Students learn from materials that are delivered from a computer which uses hyperlinks in the learning process, thus giving opportunity for a different learning experience to that possible solely in the printed medium. Telecommunications technology will exert increasing influence over the ways learners learn and teachers teach. The school is looking at online delivery options and in the future this will be a growing area of delivery of course materials. It is within this context that I saw the creation of a web site which could be a virtual classroom where students could have discussions with me and with each other and learn Internet information skills in self-paced modules when and where they needed them, as an exciting challenge.

The NTOEC Library and Information Services web site is a grass roots level, current project which extends the concept of the school library to include a wide range of information sources on the World Wide Web. The site makes central library functions of information services, information literacy instruction and reading guidance accessible to our students in a format which uses the World Wide Web to meet these goals. The quality of learning and teaching information skills will be enhanced through provision of short self-paced learning modules which students can use at point of need. Information literacy skill development is creatively treated in a 'learn by doing' model. E-mail links to the library staff supports communication with students. Global access is an important equity feature especially for overseas, geographically isolated, and remote Aboriginal community students. The site will continue to be developed to meet student needs.

The Web research skills modules available on the NTOEC site were designed to help all our students to use online information in an effective and critical manner. The skills form the basis for enquiry based learning and problem solving using the World Wide Web. Information skills are tied together in a logical and systematic nationally recognised Information Processing Framework which can be used across key learning areas. Learning outcomes are stated at the top of lessons. Students practice a particular skill and the applicability of the skill is noted in the HINTS section at the end of the lesson. The Web research skills component provides 'just-in-time' learning and incorporates open learning approaches to delivery. Students learn from the steps of the Information Process and are able to practice the steps as and when they need them according to their own needs and at their own pace. This will give them the opportunity to develop responsibility for their own learning. NTOEC teachers are beginning to refer students to the site where appropriate (in the print materials supplied to students) for links to content for research assignments in their learning areas or for curriculum requirements for extension reading, particularly in English, thus contextualising the skills within the framework of student coursework. Active learning with the possibility of greater interaction between library staff and students, and students with each other, are features of the design. The site supports student learning directions in national policy statements, for example the Statements and Profiles for Australian Schools<sup>1</sup>, the

recent draft statement on the Common and Agreed Goals for Schooling in Australia (under review 1998)<sup>2</sup>, the Mayer key competencies<sup>3</sup>, and the Northern Territory Curriculum and Profiling documents. Lessons are short to keep the focus on a particular skill and in consideration of online time and cost. The teacher librarian can promote current events and happenings as they occur thus increasing motivation and participation by students. The web site home page graphic was designed to attract students and has a Northern Territory flavour depicted by the use of the crocodile. Use of graphics were based on pedagogical purpose and download time. Generally they are kept to a minimum.

Traditionally information skills development (the skills of defining, locating, organising, creating/sharing and evaluating information) has occurred in a variety of ways at the Centre. Skills are written into printed materials and Junior, Senior and Community Residential Schools provide opportunities for skill development. Individual instruction occurs when students visit the school and through telephone support for various assignments across the learning areas. All students can borrow from the library. A limited number of new resources are advertised in our school newsletters and annual winners of the Australian Children's Book Council Awards are published in the school magazine. As well as this the School Library subscribes annually to a Book Club and makes a collection of novels available through the library for students to borrow on request. Annual printed booklet with short summaries of these novels are sent to students and to supervisors in Aboriginal Communities. Students they can select titles for wider reading (a requirement in English courses) as well as requesting other library resources. The School Library web site now makes the Book Club printed booklet available online, which gives our students faster access than was possible when the materials had to be sent by post.

The NTOEC has a Materials Development Unit for the production of primarily print-based teaching materials for use by the school. The teacher librarian supports writers in several ways, for example in a consultancy role to make sure that all writers are aware of the information process, through provision of resources to support courses and through bibliographic searches on particular learning area topics. Writers are encouraged to work with the teacher librarian in planning of research-based units of work and developing wider reading lists for English. Cooperative program Planning and Teaching (a resource-based learning approach where teachers in various learning areas work with the teacher librarian in the collaboration of planning and teaching lessons) is more evident at Residential Schools. The Internet is being more heavily used in these lessons to help students develop online literacy skills in a face-to-face situation. However, the time allocation has usually been a double lesson which is not sufficient to develop all the skills necessary. The development of the research skills component of the Library web site was an attempt to develop these skills in the distance/open learning mode.

I first began developing the NTOEC library and Information Services Web site at the end of 1997. Over the previous year I had begun collecting articles on school library web pages and had viewed several on the Internet. As well as this I participated in an online conference for teacher librarians which gave me some ideas about what I wanted to achieve. I also had several discussions with teacher librarians at conferences and on the Oz TL\_Net listserv and had made a friend of an interstate teacher librarian who later gave me moral support and critical comments on the site as well as exposing the site to teacher librarians and leading teachers during professional development activities in NSW for comment and feed back. At this first stage of development I was not very familiar with web site development tools, although I had attended an inservice in the past but had never had the time to put what I learned into practice. Most of this initial work was done by writing out the content of lessons by hand in my own time and during the end of the year school holiday break. At this stage I teamed up with another teacher librarian who was working temporarily in our building as a project officer in the Open Learning Support Unit. She was also interested in having such modules for use in her school when her contract finished, so I was fortunate that I was able to get comments on content and she also typed the first version of my lessons in a voluntary capacity and was responsible for the the initial uploading of the lesson pages (originally loaded on an IBM compatible computer and software). The whole site itself was put online with the help of another new short term member of the open learning support unit who was learning about setting up web sites and was interested and willing to give my project some spare time. Our meetings were held in my own time so this first stage was developed largely through the good will of the people involved. The Library site was a more complicated one than a simple web page with links and required uploading of documents which had been typed originally for another use and in another format, for example the Book Club and vertical file lists. The transfer of the web lessons to my school computer from where they were stored (at the other teacher librarians computer) resulted in the problem of the links not working and I spent a whole weekend with another volunteer to help me make them operational.

Although the first version of the Library site needed a lot of work and refining of presentation, it gave administrators and teachers at my school the chance to see the potential for enhancing student learning. During 1998, I demonstrated the site to the online learning group at our school and I asked teachers in learning areas across the curriculum for their input into the development of hotlinks which would be useful for student assignments. There were positive comments from the group and this was encouraging. I tried to work on my site online using an older version of a home page development tool and a computer with limited capabilities. I also had requested and was given a little technical assistance for a member of the Open Learning Support Unit for a very short period of time and was fortunate that the senior school administration approved some money through a grant for technical assistance which I obtained from outside the school. Although it was not much money (considering the charges of professional web designers) it was enough to give me a bit of incentive. However, the designer was working with different software and there were problems with compatibility when we were doing corrections. Also it appeared that some of the tags in the Home page development tool package I was using had to be changed to fit with what he was doing which took up some time. At this stage my technical skills in home page development were still minimal although I had picked up a fair bit through experimentation. However, I was never daunted and when invited to deliver a workshop interstate in Townsville in Queensland in June this year, my school Principal gave me a couple of days development time which I used to put in as much content as I could prepare. Another problem was that I could only work with the web designer after school hours and it was difficult to keep our work aligned and get my next bit of preparation ready on top of other school demands. There were delays and frustrations at times but we got the site uploaded for initial preview for the conference in the middle of the night before I flew down, such was the race against time. The workshop was a success and several teacher librarians in Townsville (Queensland) asked to trial the lessons in their schools. Meanwhile, I had the opportunity to attend an inservice on the school preferred option home page development tool and gradually my technical skills have improved. I was also given a computer upgrade and an updated version of the home page development tool.

The site is able to be used in face-to-face and in the distance/open learning mode and this year I trialled some modules with students at our school Senior, Junior and Remote Aboriginal Community Residential schools, where students come in to the Centre for face-to-face-instruction for a week or longer. The results show that the site has applicability for students at different age and ability levels. Students with lower literacy levels might need some assistance from their supervisors. It is also useful for teachers with no experience with the World Wide Web. During this year several teacher librarians in the Northern Territory (in both primary and secondary schools) have had access to the site and several are using it to trial the modules with their students and this feedback will help me to refine the lessons and have a better idea of range of applicability. The NTOEC site was shown to about eight UNESCO visitors and the official launch of stage one took place at a School Library Association of the Northern Territory professional development meeting held in Darwin (Northern Territory) on 1 September this year.

Anticipated further improvements include further development of content and hotlinks, linking of the NTOEC Library catalogue, development of the self-test quiz which will test the student's knowledge and take them to the corresponding short lessons if needed and experimenting with the site as an interactive online learning environment. The site has the potential to eventually be more specifically linked to a particular online cross-curricular assignment where a component for assessment might be demonstration of applicability of the web research skills to solve problems. I have applied for development time for the site in 1999 and if this is possible it will speed up completion and integration of the site into the school program. The site has potential to be used for synchronous and asynchronous group work by students and a consideration for future development might be to improve communication between students through other learning technologies which facilitate group discussion. However, resources and technological considerations will influence future directions.

## References

- <sup>1</sup> Introducing Statements and Profiles 1994, Curriculum Corporation, Carlton, Victoria.
- <sup>2</sup> Australia's common and agreed goals for schooling in the twenty-first century: a review of the 1989 common and agreed goals for schooling in Australia (the Hobart Declaration) 1998, Ministerial Council on Education, Employment, Training and Youth Affairs, Melbourne.
- <sup>3</sup> Young peoples' participation in post compulsory education and training. Report of the Australian Education Council Review Committee. 1991, AGPS, Canberra.