

## Information Literacy Leadership

Recently there has been much discussion regarding how schools are able to foster development of students who are information literate citizens. In pursuit of this goal the Canadian Association for School Libraries (2003) has developed eight Information Literacy Outcomes that focus on students using information responsibly, respectfully, critically, strategically, expressively, for decision making and with aesthetic appreciation—as well as using information and media tools with technical competence. This short paper proposes that information literacy leadership by school librarians and school principals fosters the development of these digital citizenship skills in both students and staff members.

### The Principal's Perspective – Dianne Yee

During my doctoral research in the late 90's, I investigated what I described as information and communications technology (ICT) leadership in 10 carefully selected, ICT-enriched schools in Canada, New Zealand and the United States. Essentially, I was examining the role of the principal, the nature of effective professional development, and the competencies required of school leaders in educational environments that had been identified as exemplars of ICT use. As a result of that research, I suggested a number of ICT leadership practices that assisted schools to develop expert and innovative ICT use by students and staff members, a student-centred learning environment, a collaborative school climate, authentic and individualized teacher professional development, and the economy of ICT resource acquisition in a networked organization.

Although I was exploring the role of the principal in using ICT as a tool to enhance teaching, learning and leadership, the data from the study also provided insight into other personnel who were key ICT leaders in the schools--ICT specialist teachers and classroom teachers. This research supported the notion that a variety of school personnel share the responsibility for ICT leadership. The ICT specialist teachers had a variety of titles (media librarians, information specialists, information skills teachers, technology facilitators) but inevitably they were located in an area of the school which would have been traditionally described as the library--although it was configured and used very differently in these contexts. These spaces, which are now generally described as "information commons", held a variety of print and digital resources and a wide variety of computer-based technology; and they were active, research centres.

As I continued to work as a high school principal in several different schools over the past 10 years, my experience and research regarding ICT leadership guided my approach to human and financial resource allocation. My perspective was consistent with the work of Don Knezek (2010), who was Project Director of the original NETS for Administrators Project, affiliated with the International Society for Technology in Education (ISTE). This American project created the National Educational Technology Standards (NETS) and Performance Indicators for

Administrators in 2002, and these standards were updated in 2009. Knezek, who is now the CEO of ISTE, has indicated that:

"integrating technology throughout a school system is, in itself, significant systemic reform. We have a wealth of evidence attesting to the importance of leadership in implementing and sustaining systemic reform in schools. It is critical, therefore, that we attend seriously to leadership for technology in schools" (p. 1.)

When I moved to Lord Beaverbrook High School, a large urban comprehensive high school, I continued to work to further develop the ICT skills of the students and staff members and to update the technology itself.

### The Roles and Leadership Competencies of "Learning Leader for Teaching and Learning Technology"

In my research I identified four key roles for ICT specialist teachers that I described as: learning focussed envisioning, adventurous learning, patient teaching, and entrepreneurial networking. In terms of "learning focussed envisioning", ICT specialist teachers were very influential in creating the school ICT vision and were concerned with maintaining student learning as a focus in ICT decision making. They were active members of the school ICT committees and frequently sought ICT professional development opportunities for themselves and others. As "adventurous learners", the ICT specialist teachers had a history of developing personal ICT competence because they made it a professional and personal priority to seek out and experiment with new instructional approaches, software and hardware. As "patient teachers", the ICT specialists were responsible for instructing students--in classroom groupings, in small groups and as individuals. However, they also worked as partners with classroom teachers providing the ICT expertise or teaching specific ICT skills to students. They were responsible for working alongside classroom teachers to support student-centred learning with ICT in their classrooms. In terms of "entrepreneurial networking", the ICT specialist teachers were skilful partnership builders with school district colleagues, ICT vendors and higher education personnel. They were often given opportunities by their principals to attend meetings, workshops and conferences where they developed collegial networks. It was this frame of reference that we used as we developed the position of Curriculum Leader (CL) for Teaching and Learning Technology at Lord Beaverbrook.

From my perspective, the CL for Teaching and Learning Technology that we hired needed to be a certificated teacher librarian to bring a classroom teacher lens to the work on ICT skill development and information literacy. In our large school context with four assistant principals, one of the assistant principals was assigned leadership liaison for school ICT initiatives. That assistant principal was a member of the school technology committee, but the chair of the committee needed to be the CL for Teaching and Learning Technology working closely with our IT Specialists who managed the network, installed software, and "evergreened" our hardware. In addition the CL for Teaching and Learning

Technology became a member of the school Leadership Council having a voice in developing whole school policy including the school timetable. As well the CL for Teaching and Learning Technology accepted a major leadership role in our whole school focus on classroom assessment by guiding and supporting the various curriculum departments with their community of practice work on SMART Outcomes. (In 2008, our district renamed the administrative position Curriculum Leader to Learning Leader.)

### The Learning Leader Perspective – Marlene Ponjavic

As Learning Leader for teaching and learning technology and teacher librarian under Dr. Dianne Yee's governance, my role allowed me to assist in the SMART goal development with the Social Studies department. The new Alberta Social Studies curriculum uses the inquiry-based learning process and requires students to learn how to access information. All students in grade 10 classes were given a pre-test covering topics related to information literacy and gathering. Each class came to the library learning commons for the actual teaching orientation of literacy skills related to information seeking. Students were exposed to the online school catalogue, print and non-print resources, electronic databases, issues around plagiarism, bibliography and copyright. The students demonstrated strategies in reading, writing, listening, viewing, interpreting and processing information to answer questions, solve problems, discover new information and select pertinent information related to completing a learning task. Each student wrote the post-test after the completion of the inquiry-based learning project outlined in the next paragraph. Results were compared, and students were found to have improved their test scores.

In addition, three teachers and I collaboratively developed a structured inquiry-based project on the topic of multinational corporations for grade 10 Social Studies classes. This project demonstrated how well the students were able to apply the information literacy skills taught in the orientation. The teachers and I selected appropriate print and non-print resources for research and aided in the formation of the essential questions as well as how to access the information. Teachers and students learned how to access the online school catalogue using key word searches, electronic online databases using a Boolean search, pertinent websites on the world-wide net, how to evaluate these websites and reference tools to develop a bibliography. The project asked students to choose a multinational corporation and to form an opinion/conclusion based on their research to decide if they would support the chosen multinational corporation by purchasing stock or buying their product. Students were asked to identify the ways their opinion was influenced by their research. They could present their information using a variety of formats and technology. Student engagement and discussion increased due to the personalization of learning.

Other instances of support of SMART goals occurred with the English and Second Languages departments. Frequently, classes came to the library learning

commons for book talks and selection of reading materials. Classes doing research came for database orientations on a specific topic. As Learning Leader, I prepare a project specific orientation, which highlights the use of the various databases. The Science department asks me to demonstrate the use of the databases for the career component of their curriculum.

As Learning Leader, it is important to “provide a leadership role in information literacy and work collaboratively with classroom teachers to ensure that information literacy skills are integrated effectively into the instructional program”(Canadian School Library Association, 2003, p. 7) Research clearly indicates that “the development of student competence in information literacy skills is most effective when integrated with classroom instruction through collaborative planning and teaching by the teacher-librarian/ teaching and learning technology leader and the classroom teacher”(p. 7).

In order that teachers feel comfortable in trying a project “outside their comfort zone,” it is important that the Learning Leader demonstrate approachability and flexibility without judgment for help with curriculum and technology. Thus, teachers will venture out of their comfort zone and “try out” new methodology. An example to the application of this concept is the planning and assistance offered collaboratively with a Biology 20 teacher. The teacher incorporated the content of a unit on photosynthesis by asking students to write a song using Garage Band (an application program on MAC desktops which acts as music composition software). I reviewed the criteria and helped teach the technology component. This activity engaged students in a collaborative learning environment, gave them access to new technology, and required a novel creation of factual content, which personalized their learning. Quiz results demonstrated that students had retained content effectively when they were able to create their own way of remembering it.

As Learning Leader, my position allows me to influence administrative decisions. A new mandatory course in grade 10, called Innovative Technology, is being planned for next year at Lord Beaverbrook High School. With the potential to include information literacy skills and inquiry-based learning in this course, the Career and Technology Studies Business department was approached because they would be developing the technology modules. Students need to be consistently prepared to access, interpret, and analyze information critically, using information appropriately and respectfully.

As chairperson of the school technology committee, my Learning Leader position allows for integration of curriculum and technology needs. Part of the mandate was to facilitate the implementation of SMART Technology throughout the school. This involved initiating discussion with the curriculum departments and teachers, promoting the advantages of using SMART Boards and SMART Response software.

The school technology committee functions well because its members influence the purchasing decisions and determine the in-service needs and training required to implement the technology. An example would be supplying appropriate technology (computers, Netbooks, LCD projectors, SMART Boards, SMART podium and document cameras) to each department. Appropriate maintenance to ensure long term usage of the equipment, is important in the budget allocated to the technology committee. Working with our IT specialists ensures the network functions properly, software is installed, preventative maintenance takes place, and new hardware replaces the old. The technical expertise of the IT specialists enhances the use of technology. The library learning commons staff is proficient in maintaining both print and non-print resources, trouble-shooting technology problems and serving the school community by providing resources. Having this staff in close proximity is essential to meeting the needs of students and staff.

Significant professional development is fundamental to this Learning Leader position. Networking with school district colleagues exposes me to the latest developments in technology appropriate to the classroom and the latest in print and non-print resources. Contact with ICT vendors and collaborative negotiations allows for cost-effective purchasing of hardware and software and electronic online databases.

#### A Final Perspective - NETS•A and Information Literacy Leadership

In 2009 ISTE updated their Technology Standards and Performance Indicators for Administrators to create the five categories: Visionary Leadership, Digital-Age Learning Culture, Excellence in Professional Practice, Systemic Improvement, and Digital Citizenship. These updated standards provide clear guidelines and support for information literacy leadership in our secondary schools, and they resonate with our work. As Learning Leader and Principal we have sought to “inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization” (ISTE, 2009, p. 1). We have attempted to “create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students” (p. 1). We have promoted “an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources” (p. 1). We have provided information literacy “leadership and management to continuously improve [our school] through the effective use of information and technology resources” (p. 1.) And finally, we have attempted “to model and facilitate understanding of social, ethical, and legal issues and responsibilities related to an evolving digital culture” (p.1).

#### References

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