World Library and Information Congress: 70th IFLA General Conference and Council

22-27 August 2004
Buenos Aires, Argentina

Session: Empowering Literacy from babies to teens

Promoting Information Literacies: A Focus on Inquiry

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Abstract
An important aspect of the work of school librarians and other literacy workers is the development of young people's information literacies, that is, those skills and strategies essential to finding and using information. Canada's new information literacy framework addresses eight information literacies, expressed in the form of student outcomes: (1) Uses information with aesthetic appreciation; (2) Uses information responsibly; (3) Uses information respectfully; (4) Uses information critically; (5) Uses information strategically; (6) Uses information for decision-making; (7) Uses information expressively; and (8) Uses information and media tools with technical competence. Researchers and practitioners in Alberta's school library community have developed a new document guiding the work of teachers and librarians in developing students' information literacies, specifically in relation to the process of inquiry or "inquiry-based learning." The new document, titled Focus on Inquiry, takes into account process models of library instruction that have been developed in many parts of the world over the past three decades. Process-based models for developing information literacies support a view of library research as a process of inquiry that involves active learning and open-ended investigations and

that focuses on thinking about information and using information within a problem solving perspective. Implementing inquiry-based learning depends on teachers and librarians having a deep understanding of how learners experience the inquiry process and about how learning through inquiry can be facilitated. In order for students to have worthwhile inquiry experiences and in order for them to develop inquiry-related information literacies, teachers and librarians need to provide instructional guidance that is affective as well as cognitive in focus. The challenges of this work for teachers and librarians are explored through an analysis of Alberta's new Focus on Inquiry model, and an examination of research related to the implementation of this and similar models in primary, middle, and secondary schools.

Introduction

An important aspect of the work of school librarians and other literacy workers is the development of young people's information literacies, that is, those skills and strategies essential to finding and using information. The use of the term "information literacies" emphasizes the complexity and multiplicity of skills and strategies involved in finding and using information. School librarians and other literacy workers need to be able to support students through the phases of the inquiry process; we need to provide instructional guidance that is affective as well as cognitive in focus if we want students to have worthwhile inquiry experiences and to develop inquiry-related information literacies. This kind of instructional guidance requires a deep understanding of how learners experience the inquiry process and about how librarians and teachers can facilitate learning through inquiry.

Researchers and practitioners in the school library community of Alberta, Canada are in the process of developing a new document to support teachers and librarians in providing instructional guidance during "library instruction," or what we are more frequently referring to as "inquiry-based learning." (see, for example, Donham, Bishop, Kuhlthau & Oberg, 2001). What is regarded as exemplary library instruction has changed over the past thirty or so years that I have been involved with school libraries, as a classroom teacher, as a teacher-librarian, and now as a school library educator and researcher. In this paper, I want to outline the process through which the document is being developed and to introduce some of the ideas we think are key to inquiry-based learning. Along the way, I will try to provide some practical strategies for supporting teachers and students through the phases of the inquiry process.

Developing the New Document

The new document, titled *Focus on Inquiry,* was predated by a document titled *Focus on Research* (Alberta Education, 1990) which was developed to enhance an earlier policy document, *Focus on Learning* (Alberta Education, 1984). When educators in the K-12 sector began to implement the policies and practices outlined in the 1984 document, the lack of guidance related to instructional matters became apparent. *Focus on Research* was developed to support teachers (and teacher-librarians as well) in teaching students a model of the research process and in guiding students though inquiry-based learning activities. Like the earlier document, the new Alberta document is directed to classroom teachers but it, of course, will be helpful to teacher-librarians.

Shortly after the publication of *Focus on Research*, the team of researchers and practitioners involved in its development began to be aware of some shortcomings of the document (see, for example, Anderson, 1994). They saw that they had been ineffective in their attempts to convey the importance of attention to the affective or emotional domain in inquiry-based learning, and they realized that they had provided insufficient background information for users of the document--whether teachers or teacher-librarians—many of whom did not have a thorough grounding in the theory and practice of information seeking. Several individuals and groups began encouraging the ministry of education to consider a second edition or revision of the document, but their requests found no support for a long time. Then, at the end of 2003, two serendipitous events happened: (1) there was an unanticipated budget surplus in the ministry of education that had to be spent by the end of March 2004, and (2) Ms. Teddy Moline, the person with responsibility for school libraries in her portfolio, who had been seconded to the ministry from her position as school and district leader in school libraries, had her list of priority projects ready when the budget surplus announcement came. Her number one priority was the revision of *Focus on Research* and support for the implementation of the revised document. Ms. Moline contracted myself and Dr. Jennifer Branch to write the draft document and to manage the first stage reviews. The first stage reviewers of the draft document would be experts in the content area of the document: other school library educators, the executive members of the provincial school library association (the Learning Resources Council of the Alberta Teachers' Association) and outstanding teacher-librarians. The second stage reviewers would be classroom teachers, principals, and school district administrators as well as ministry of education officials, many of whom would be educators seconded for short terms to the ministry. The January 2004 draft document, online at is now undergoing the second stage reviews, and a final document is anticipated for early in 2005.

Dr. Branch and I began by writing the initial draft to share with the first stage reviewers. Because the final document had to be suitable for the needs of school-level practitioners and because we generally write for an academic audience, we were aware that we were likely going to have to write many versions before we had a draft document ready for submission to the ministry of education. Our work on the Alberta document was also influenced by our involvement (along with Dr. Marlene Asselin from the University of British Columbia) in the final editing of *Achieving Information Literacy: Standards for School Library Programs in Canada*. The publication of the Canadian standards document in June 2003 was the joint project of two national school library associations, the Canadian School Library Association and the Association for Teacher-Librarianship in Canada. The instructional framework for the standards for staffing, collections, facilities, and information and media technology is an information literacy framework which addresses eight information literacies, expressed in the form of student outcomes: (1) Uses information with aesthetic appreciation; (2) Uses information responsibly; (3) Uses information respectfully; (4) Uses information critically; (5) Uses information strategically; (6) Uses information for decision-making; (7) Uses information expressively; and (8) Uses information and media tools with technical competence (*Achieving Information Literacy*, pp. 9-17). Dr. Branch and I knew that we could provide the theory and research related to inquiry-based learning, but we also knew that the document would not meet our goals nor the goals of the ministry if it was, in the end, unsuitable for practical use by teachers and teacher-librarians.

We held a number of focus group sessions where we asked the reviewers to respond in general to the initial draft and to consider a number of questions related to the content of the document:

- What definitions of inquiry and of inquiry-based learning should be used?
- How much of the earlier *Focus on Research* model should be incorporated into the new document?
- Should we use or recommend a model at all?
- How could we best address concerns arising from the implementation of *Focus on Research* and other inquiry models?

These first stage reviewers were a tough audience: their responses to the initial draft of the document included the following assessments:

- The tone is too academic
- The text is too dense
- Not enough white space in the layout
- Not practical enough
- Not helpful enough for classroom teachers

Their rather scathing assessments helped Dr. Branch and me to re-think our approach to the document. How we addressed their assessments and their responses to our focus group questions is the main focus of this paper.

In addition, at the end of this paper, I discuss the challenges involved in implementing a model for inquiry-based learning in schools. The researchers and practitioners involved in the work around inquiry-based learning in Alberta are beginning to think in terms of creating a culture of inquiry in schools that reaches beyond the library and beyond the library program. The concept of "inquiry" is not new to Alberta educators; this approach to teaching and learning is infused into all of the curriculum documents for K-12 schools in Alberta. The concept of a "culture of inquiry" which we believe is necessary to actually implement inquiry-based teaching and learning in K-12 schools will be, however, new to many K-12 educators. Two questions we often have asked ourselves in developing the *Focus on Inquiry* document are, "How can we expect K-12 students to engage in inquiry without the support of teachers and librarians? How can teacher and librarians (and also administrators and education officials) give students that support without having had the experience of being engaged in inquiry themselves?"

Changing Views of Exemplary Approaches to Library Instruction

To begin then, before we as researchers and practitioners can start to think about helping to build a culture of inquiry in schools, we need to be clear about where we are in our understandings of library-based instruction and in our conceptions of inquiry-based learning. What is regarded as exemplary library instruction has changed over the past thirty years: a source approach, during the 1960s and 1970s; a pathfinder approach, through the 1980s; and a process approach, beginning in the 1990s (Kuhlthau, 1993). The process approach to teaching inquiry emphasizes thinking about information and using information within a problem-solving perspective. The process approach incorporates the knowledge from earlier approaches, such as the knowledge of tools, sources, and search strategies, but it emphasizes that this knowledge is to be developed within the teaching of thinking and problem solving. The process approach goes beyond the location of information to the use of information, beyond the answering of a specific question to

the seeking of evidence to shape a topic. It considers the process of a search for information as well as the product of the search. As I have argued in other papers (see, for example, Oberg, 1999, 2002), a process approach to inquiry and/or library-based research calls for an awareness of the complexity of learning from information: learning from information is not a routine or standardized task, and it involves the affective as well as the cognitive domains.

There is a wide range of activites that could be library-based and could involve instruction by a teacher and/or teacher-librarian—everything from "fact-finding" to "information treasure hunts" to "research projects" of many kinds. In the work we are doing, we are focusing on inquiry-based learning which we have defined in this way:

> a process where students formulate questions, investigate widely and then build new understandings, meanings and knowledge. That knowledge is new to the students and may be used to answer a question, to develop a solution, or to support a position or point of view. The knowledge is usually presented to others and may result in some sort of action. (Alberta Learning, in press, p. 1)

We have revised the 1990 Alberta model of the research process in line with the latest research on how learners experience the inquiry process and the implications of that research for practice. Our work has been informed by other process-based models of library instruction, particularly the work of Ann Irving, Michael Marland and James Herring in Great Britain and the work of Carol Kuhlthau and Barbara Stripling in the United States. Their work was reflected in the first Alberta inquiry model – the 1990 *Focus on Research* which is a five-stage model, with one element common to each of the stages, Review the Process (see Figure 1) – and in the new Alberta inquiry model which is a 6-phase model with one element common to each phase, Reflecting on the Process (see Figure 2).

Figure 1 The1990 Focus on Research Model

STAGES	SKILLS
Planning	• *Establish Topic* • *Identify Information Sources* • *Identify Audience and Presentation Format* • *Establish Evaluation Criteria* • *Review Process*
Information Retrieval	• *Locate Resources* • *Collect Resources* • *Review Process*
Information Processing	• *Choose Relevant Information* • *Evaluate Information* • *Organize and Record Information* • *Make Connections and Inferences* • *Create Product* • *Revise and Edit* • *Review Process*

Information Sharing	• Present Findings • Demonstrate Appropriate Audience Behavior • Review Process
Evaluation	• Evaluate Product • Evaluate Research Procedures and Skills • Review Process

The major change in the new model is the splitting of the the middle phase of "Information Processing" into two phases, "Processing" and "Creating." This change reflects the feedback from teachers and teacher-librarians that "Information Processing" phase was too large and complex and that the phase included two quite different kinds of work: (1) selecting pertinent information, and (2) organizing that information into a format or product that could be shared with others.

Figure 2 The 2004 Focus on Inquiry Model

Phase	Skills and Strategies	
Planning	• *Establishing a topic area for inquiry* • *Identifying possible information sources* • *Identifying audience and presentation format* • *Establishing evaluation criteria* • *Outlining a plan for inquiry*	*Reflecting on the process*
Retrieving	• *Developing an information retrieval plan* • *Locating and collecting resources* • *Selecting relevant information* • *Evaluating information* • *Reviewing and revising plan for inquiry*	*Reflecting on the process*
Processing	• *Identifying a focus for inquiry* • *Choosing pertinent information* • *Recording information* • *Making connections and inferences* • *Reviewing and revising plan for inquiry*	*Reflecting on the process*
Creating	• *Organizing information* • *Creating a product* • *Thinking about the audience* • *Revising and editing* • *Reviewing and revising plan for inquiry*	*Reflecting on the process*
Sharing	• *Communicating with the audience* • *Presenting new understandings* • *Demonstrating appropriate audience behaviour*	*Reflecting on the process*
Evaluating	• *Evaluating product* • *Evaluating inquiry process and inquiry plan* • *Reviewing and revising personal inquiry model*	*Reflecting on the process*

Inquiry-Based Learning Themes

No matter the ages of the students that we work with, no matter the topics they research, there are some common themes related to how learners experience the inquiry process and related to how library instruction can best support learners as they work through the inquiry process. There are five themes that we kept in mind as we developed the new document: (1) developing emotional literacy; (2) investing time in exploration; (3) supporting students during their work; (4) the teaching role of the librarian; and (5) understanding the process approach to inquiry. These are themes that I have explored in other papers (see, for example, Oberg, 1999, 2002) so I will address them here only briefly.

Developing emotional literacy: The process approach to inquiry emphasizes the affective as well as cognitive aspects of the process. Students need to be helped to recognize as natural the waves of optimism and frustration that accompany complex learning (Kuhlthau, 1993). They also need to be aware of and have coping strategies to address such common phenomena as library anxiety and information overload. Students who understand that their feelings are not unique but shared by others are less likely to be overwhelmed by them.

Investing time in exploration: The problem solving emphasis of the process approach means a shift in the way we think about and use time. More time is needed in early stages of the process for exploration, for building content knowledge, for developing a personal interpretation or focus. This is time well-invested in developing students' interest in and commitment to the topic being researched. Even very young researchers in Grades 1 and 2, given the opportunity for lengthy and rich exploration of a topic, can develop a clear understanding of the inquiry process as well as producing unique and original research products (Steeves, 1994). Older students are more interested on their inquiry topics if they have solid background knowledge in the topic area and can see the purpose of the research and its connection to their other school work (Garland, 1995).

Supporting students during their work: Students experience different feelings, thoughts, and actions at each phase of the inquiry process. This also calls for different kinds of teacher and teacher-librarian involvement or mediation at the various stages in the process. Where investigative work was integrated with the curriculum, teachers found that students became more creative, more positive, and more independent (Kühne, 1995). This was true for poorer students as well as for the stronger students, although the poorer students needed more individual attention during the process. When teachers and librarians talk with students about their learning, they can help the students to move forward, see things from new perspective, make connections between previous and new knowledge, and see the patterns of their learning (Todd, 1995).

Teaching role of the librarian: Librarians need to take an active teaching role in working with teaching colleagues in schools, because an inquiry model is difficult to implement fully even when there is a knowledgeable teacher-librarian and a school policy that supports the constructivist philosophy of learning that underpins the model (Hazelwood, 1994). Teachers who have worked collaboratively with librarians were impressed by the creative and imaginative learning experiences that resulted from cooperative planning with teacher-librarians and thought

teacher-librarians needed to be more assertive in inviting teachers to engage in cooperative planning (Sweeney, 1994).

Understanding the process approach: Even teachers and librarians who are aware of the process models sometimes believe they are implementing their model but actually are leaving out the aspects that in fact are critical to the success of the model Holland (1994). Tastad and Collins (1997) found that implementing process approaches is difficult in schools where the teaching practices and curriculum do not support a process or constructivist approach. Wehlage (1999) found this as well, and suggested that four elements supported improved instructional approaches: teachers share norms and values that promote student learning; teachers engage in reflective dialogue to improve themselves and their schools; teachers de-privatize their practice; and staff engage in collaborative practices that renew values and norms and that facilitate reflection.

Using "Lenses" to Present the Model

With the help of the reviewers, we eventually developed six different "lenses" or ways of presenting the phases of a model of inquiry-based learning (see Figure 3).

Figure 3 Presenting the Model through a Variety of Lenses
- ■Key Outcomes
- ■Building Student Skills for …
- ■Teaching … including Tips for Teachers
- ■Assessing …
- ■Thinking About …
- ■Sample Activity for …

The first lens, Key Outcomes, presents each phase of the inquiry model in terms of learning objectives, using the language of the other Alberta curriculum documents (called programs of study). This approach was intended to help teachers and teachers make immediate connections with other curriculum areas and to reinforce the statement made in the Foreword of the document that "inquiry-based learning is not an 'add-on' but rather a way to achieve the goals of the Alberta programs of study" (Alberta Learning, in press, p. v). Sample outcomes from Key Outcomes for Reflecting on the Process, a metacognitive process that is infused throughout the model, are provided in Figure4.

Figure 4 Key Outcomes
Samples from Key Outcomes for Reflecting on the Process
Students will:
- ■Understand that inquiry is a personal learning process
- ■understand the inquiry process is transferable to other learning situations
- ■develop their metacognitive and reflecting skills – thinking about their thinking and thinking about their feelings

develop strategies for monitoring and enhancing their thinking and feelings. (Alberta Learning, in press, p. 35)

The second lens, Building Student Skills, presents each phase of the inquiry model in terms of skills needed for success in for inquiry-based learning. These are skills that students can and should be learning within the context of classroom activities. This approach was intended to help teachers and teacher-librarians realize that many of the skills students need for inquiry can be taught prior to undertaking an inquiry-based learning activity and that teaching students those skills prior to undertaking an inquiry-based learning activity increased the likelihood of successful inquiry for both students and teachers. Sample skills from Building Student Skills for Planning, the first phase of the inquiry model, are provided in Figure 5.

Figure 5 Building Student Skills

> ***Samples from* Building Student Skills for Planning**
> Prior to the activity, and in the context of classroom activities, the teacher provides students with opportunities to:
> ■Brainstorm possible questions, ideas and issues
> ■Use concept mapping software (such as Inspiration), mind maps, or topic webs to record ideas
> ■Use a KWL [What I **Know**, What I **Want** to Know, What I **Learned**] chart to develop questions about the topic of inquiry (Alberta Learning, in press, p. 39)

The third lens, Teaching, presents each phase of the inquiry model in terms of specific skills, strategies, and understandings that can be taught during that phase of an inquiry-based learning activity. Tips for Teachers, important concepts and reminders for teachers, are also included as part of the Teaching lens. This approach was intended to emphasize that students need support throughout the inquiry process and that teaching specific skills, strategies, and understandings during the inquiry process will increase the likelihood of student success. Samples of skills, strategies, and understandings that could be taught as part of the Retrieving phase are provided in Figure 6.

Figure 6 Teaching

> ***Samples from* Teaching Retrieving**
> During and in the context of an inquiry-based learning activity, the teacher provides students with opportunities to:
> ■Understand that Retrieving is problem-solving that requires both critical thinking and imaginative thinking.
> ■Create a search strategy
> ■Communicate with experts both locally and beyond
> ■Record bibliographic information (Alberta Learning, in press, p. 45)
>
> ***Samples from* Tips for Teachers**
> ■Teach the difference between relevant and pertinent information
> ■Teach students to self-check –"Is this information even remotely related to my question?"
> ■Beware of 'hyperleaping' –databases and the Internet need different searching strategies (Alberta Learning, in press, p. 46)

The fourth lens, Assessing, presents each phase of the inquiry model in terms of specific strategies that student can and should learn for assessing the quality of their own work and of the work of others. This approach was intended to give teachers and teacher-librarians self-assessment strategies that they could teach their students to develop their abilities to monitor and adjust their own performance and to become more self-reliant learners. Samples of strategies that could be taught as part of the Processing phase are provided in Figure 7.

Figure 7 Assessing

> ***Samples from* Assessing Processing**
> The teacher provides opportunities for students to:
> ■Complete graphic organizers (compare / contrast, cause / effect, etc.)
> ■Write/talk about which graphic organizer(s) was/were most appropriate for their inquiry
> ■Write/talk about which resources are most useful for a deeper understanding of their topic and why
> ■Write/talk about how their understanding of the topic has changed/developed (Alberta Learning, in press, p. 52)

The fifth lens, Thinking, presents an extended description and discussion of each phase of the inquiry model. This approach was intended to give a picture of what was involved in each phase of the inquiry model from the perspective of the students and of the teachers and teacher-librarians who are supporting the students in inquiry-based learning activities. A sample description from Thinking about the Creating phase of the inquiry model is provided in Figure 8.

Figure 8 Thinking

> ***A Sample from* Thinking about Creating**
> ■In this phase of the inquiry process, students organize and synthesize their information and ideas in a unique and personal way. They develop or revise a thesis and formulate alternative answers, solutions and conclusions. Facilitating student discussions before writing can help them express their ideas in their own words. Students categorize information according to various frameworks, developed by themselves or provided for them, such as time/order or cause and effect. Students look for inconsistencies or deficiencies in their information and locate information to rectify such problems. …(Alberta Learning, in press, p. 56)

The sixth and final lens, Sample Activity, presents an activity that teachers and teacher-librarians could carry out with students as part of each phase of the inquiry model. This approach was intended to share practical and timesaving activities that have been used successfully by colleagues with expertise in inquiry-based learning. A Sample Activity from the Evaluating phase of the inquiry model is provided in Figure 9.

Figure 9 Sample Activity

> **A Sample Activity for Evaluating**
> ■Teach students the basics of a flow chart and how it assists in evaluating process and product. Have students draw a flow chart of their inquiry process. Encourage studnets to use pencuil crayons and to depict the flow chart in a way that best describes their real experiences. The chart can be designed on 11 x 17 paper or on a computer program.

Provide time for students to compare and contrast their flow charts. (Alberta Learning, in press, p. 63)

A Systematic Approach to Inquiry

The power of inquiry-based learning quickly becomes evident to teachers and teacher-librarians who are implementing this approach. Inquiry-based learning provides opportunities for students to develop skills they will need all their lives, to learn to cope with problems that may not have a clear solution, to deal with changes and challenges to understandings, and to shape their search for solutions, now and in the future. A systematic approach to the development of these skills is essential to prepare students for problem solving and lifelong learning. A systematic approach ensures that students have the opportunity to engage in inquiry, to learn an overall process and to understand that this general inquiry process can be transferred to other inquiry situations. When students have the benefit of a systematic approach, from primary grades through high school, they become familiar with the inquiry process, they internalize a variety of inquiry skills and strategies for independent and group use; and they are able adapt procedures to various inquiry situations. There are clear signs in classroom where teachers are emphasizing inquiry-based learning. These characteristics include:

1. Inquiry is in the form of authentic problems within the context of the curriculum and/or community.
2. The inquiry capitalizes on student curiosity.
3. Data and information are actively used, interpreted, refined, digested, and discussed.
4. Teacher, students, and teacher-librarian collaborate.
5. Community and society are connected with the inquiry.
6. The teacher visibly models the behaviours of inquirer.
7. The teacher uses the language of inquiry on an ongoing basis.
8. Students take ownership of their learning.
9. The teacher facilitates the process of gathering and presenting information.
10. The teacher and students use technology to advance inquiry.
11. The teacher embraces inquiry as both content and pedagogy.
12. The teacher and students interact more frequently and more actively than during traditional teaching.
13. There is an identifiable time for inquiry-based learning. (Drayton & Falk, 2001)

How Inquiry Challenges Traditional Approaches

The challenges of implementing inquiry-based learning also quickly become evident to teachers and teacher-librarians who are new to implementing this approach. There are many ways in which inquiry-based learning challenges more traditional approaches to learning: it takes time; it is messy; it works against much of the current curricula and testing movements; and it moves from teacher-centred, past student-centred, to a learning-centred model. A learning-centred model means that all members of the school community (administrators and teachers as well as students) are learners and that their work as learners is characterized by active engagement, inquiry, problem solving and collaboration.

A learning-centered model is consistent with the concept of the school as 'an information literate community.' This term, coined by Henri (1995), draws distinctions between the school as a place of learning and the school as a learning community and places a strong emphasis on the process of informing within a learning community. An information literate school community is a school where teacher-librarians are involved in teaching, where the importance of information literacy is recognized, and where everyone in the community is engaged collaboratively in resource-based, problem-solving learning. Many schools incorporate information skills into their curriculum but in so doing place the emphasis entirely on students. Only when teachers understand that information literacy begins with them is an information literate school community possible. Henri (1999) has suggested a set of criteria for measuring a school's progress towards become an information literate school community. These criteria involve indicators such as: an information policy; an ICT plan; authentic assessment; varied learning contexts; curriculum-integrated information skills instruction; and professional development for teachers in information literacy.

Success with inquiry-based learning often requires a considerable change in school culture. Some schools, individually or as part of a district-wide initiative, have made inquiry-based learning their instructional priority. Studies investigating the implementation of inquiry-based science education, of inquiry-based information literacy programs, and of other inquiry-based educational innovations, have resulted in guidelines for building a culture of inquiry:

1. Administrators in the school or district have a clearly articulated vision for inquiry,
2. The vision for inquiry is carried forward despite competing pressures,
3. Two or more champions promote the vision for inquiry,
4. Resources and space for inquiry are readily accessible,
5. Teachers collaborate and support each other,
6. Teachers, students, and parents trust each other,
7. Small, interdisciplinary teams of teachers work together, and
8. Problem-solving and investigative skills are valued throughout the school / school system. (Falk & Drayton, 2001; Fullan, 1991; Kulhthau, 2001)

Inquiry Across the Curriculum

The model for inquiry-based learning presented in the *Focus on Inquiry* document is one that can be used in all programs of study and in all grades. Inquiry-based learning is embedded in all Alberta curricula. Although different terminology and process emphases are used in the different curricula, this document emphasizes common aspects or elements and supports an integrated, cross-disciplinary approach to inquiry. Using an inquiry model helps students to internalize a process for inquiry that is transferable to everyday life situations.

Teaching the inquiry process in ways that respect the interests and needs of young people is a complex and fascinating educational task, one that demands the very best of our knowledge and skills as teachers and librarians. An enormous amount of research has been conducted over the past two decades that can contribute to this work with young people. We as teachers and as librarians need to keep abreast of this growing body of research, and we need to use it to reflect upon and improve our practice on an ongoing basis. Without a deep understanding of the process approach to inquiry-based learning, we are likely to continue traditional practices which limit

students learning opprtunities, some of which push learners to "get to work" too early and prevent them from developing a personal perspective and motivation for learning through investigation. We then need to look closely at our classrooms and schools to see to what extent they embody a "culture of inquiry."

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