Hooked On Questioning
How the Teacher-Librarian Can Change Questioning Practices In Their Schools

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Questions are an essential tool used in all teaching situations. This paper summaries current research on the best ways to ask questions and suggests how teacher-librarians can use this knowledge to guide their teaching faculties towards more effective classroom practice. It provides a guide for planning questions to incorporate a range of thinking from the cognitive, creative, and affective domains and gives practical examples of the ways this might be achieved. Essential questions are briefly discussed and the need to support and encourage student questioning is demonstrated. Determined to bring about change, the teacher-librarians used videos, *Power Point* , web quests, *Inspiration*, and the school intranet in alerting their staff to the teaching and learning opportunities afforded by good questions. How this was does and the progress and pitfalls of their endeavours are outlined.

Improved questioning has been identified as a key factor in raising the standard of cognitive achievement of our students. Developing a teacher's questioning techniques is a significant part of teacher training. Hours of professional development, hundreds of web sites, journal articles and books, have been devoted to raising the awareness of practicing teachers to this key tool in their professional repertoire. Everything anyone would want to know about questioning is readily available, but how to use it to change practice in the school classroom is a formidable task Teachers coping with new curriculum and assessment requirements in their subject as well as reports, marking and many extra curricular duties often feel they cannot take the time to learn about and apply new ways of teaching and learning. This paper looks at the role the teacher-librarians can play in attempting to distil the research on questioning into manageable chunks, which can make some beneficial changes in teaching practice within their schools.

What Can Teacher-Librarians Do?

At Cranbrook we have endeavoured to help change practice in three ways. We have
- raised staff awareness about questioning, analysed existing practice, and informed teachers about quality questioning,
- collaborated with teachers in developing essential or leading questions as a guide to curriculum planning and in setting meaningful and challenging research assignments, and
- worked with students both individually and in the classroom to develop their knowledge and ability to ask questions to improve their learning and their behaviour.

How is this different from what teacher librarians do every day? Not much. However by immersing ourselves in the current literature about questioning, amassing a considerable collection of practical texts with examples, and collecting some of the most usable websites, we are promoting good questioning at every opportunity. We are crusaders for change in making questioning practice at our school more in line with best practice.

How Did We Begin?

Questions have always been the major stock in trade for teachers and have been recognized as a valuable tool to assist students to learn for centuries. My focus on questioning began when I was working with the Head of History as we set about trying to improve the questioning skills of the teachers in his department. By doing this we sought to improve the analytical quality of our students and to equip them with the necessary tools to be effective questioners themselves. Individual research assignments for final year student have been made possible by changes in the NSW syllabus and these have proved popular with the students. It soon became obvious to us that Year 12 students have great difficulty in formulating their own research question. Students found it relatively easy to identify a topic area, and do their research. However, when it came to composing their research question most were stumped. The tortured and convoluted questions they posed themselves made their research task almost impossible to achieve and resulted in projects that bore little or no relationship to the stated goal. Our initial investigations revealed that our experience was not unique:

> *Skills needed to begin to think about issues and problems do not suddenly appear in our students. Teachers who have attempted to incorporate higher level questioning in their classrooms rather than just recall are usually dismayed at the preliminary results. Unless the students have been prepared for the change, both the students and the teachers are likely to experience frustration.* (Tama, 1989, p.33)

Funded by a government grant we undertook to explore techniques to educate history teachers about questioning theories and provide appropriate modelling of various question types.

Meeting with some success and recognising how vital questioning was the library staff have attempted to broaden our reach and utilise the experience gained working with the history teachers to raise awareness in other faculties. We have found that working with teachers to develop more and different e-learning units and posting them on the school's intranet has generated discussion about questioning within the school. We have developed subject-specific in-house professional development about questioning and even raised it as a topic at executive conferences

How Successful Have We Been?

Changing teacher practice especially with very experienced and successful colleagues is a very slow process. "Changing classroom questioning practice is particularly challenging, not only because we are attempting to break deeply entrenched habits, but also because few of us have had good models to learn from (Walsh, 2005, p.159) Many teachers have been wonderfully co-operative and

teaching practice and satisfaction has improved in some classes. They have supported and encouraged us all the way. The students as well have been intrigued to know they are part of an experiment and have participated energetically and enthusiastically especially when, to document our efforts, cameras were present. We talked to the students about what we were doing as we felt it was important that they knew the purposes of the changes we were making. We believed this would lead to greater co-operation. There is certainly a heightened awareness of the questions asked in the classroom, and there has been some attempt to make these questions more meaningful and challenging.

Progress has not been constant or consistent. With the advent of syllabus changes in years 7-10 teachers have felt huge pressure to rewrite programs and familiarise themselves with the new content. This has been a distraction but also an opportunity. When the library staff offered to help with planning units and creating research tasks the overworked teachers was only too happy to allow us to assist. Examinations and staff changes also disrupt progress. To admit the need for change can be threatening and to actually make the changes "requires commitment, consistency and time" (Walsh, 2005, p. 167). We have not tried as yet to quantify the changes but we feel encouraged to continue with our efforts and extend it into more faculties and classrooms.

The Process

The initial process involved reviewing the research literature, observing classes and mapping patterns of questions: opened, closed, task-based, analytical, hypothetical, inferential etc. The first group of history teachers was unaware of our purpose as we asked to sit in the back of their classrooms and observe and map their questioning. We wish to acknowledge the willingness and trust they have shown us. Subsequently we have provided teachers with a self-evaluation form which we adapted from one in an excellent practical book (Godinho & Wilson, 2004, p. 60-61) We purchased a range of training videos (listed in References), and these quickly encapsulate many of the key research findings about questioning. They were all set in American classrooms, however, and this proved to be a distraction for some of our teachers. As will be outlined later, our findings simply reinforced those presented in other research into the questioning practices of teachers. In subsequent debriefing sessions we have discussed the key components of questioning:

Table 1. Components Of Successful Questioning

Deciding what you want the students to learn	Structuring the questions to achieve this	Pitching the questions at the right level
Putting the question clearly	Directing and distributing the questions	Pausing and Pacing
Prompting and Probing	Listening to the replies and responding	Sequencing.
Essential Questions	Student Questions	Teacher self-assessment

Put in this way, re-educating teachers seems a formidable task for something which some teachers believe is a natural process and which, at the very least, should appear to be spontaneous.

The aim has been for the teachers to be more aware of their own questioning and to adopt some of the suggested strategies that the research has shown to be helpful in improving the intellectual climate in the classroom. We believe the ability to develop excellent questioning skills can be learned if attention and practice is given to it. We have approached the professional development in the usual ways. We have met with department groups, with teachers who are about to begin a similar unit together, and with individual teachers who just wanted some help. We have made several power point presentations that are always being revised in order to get the message across. We just did what teacher-librarians have been doing for decades. Working collaboratively we

- planned units of work around essential or leading questions,
- formulated a range of questions for subsequent units of work often posting them on the intranet,
- showed teachers how to use online tools like hot potatoes or Quia and the electronic whiteboard to vary their questions, and
- provided a range of examples of teaching games which heighten student awareness of questioning.

At the same time the school has embarked on a new overall learning management program called "Dimensions of Learning" developed by Robert J. Marzano (Marzano & Pickering, 1997). This is just one of many curriculum frameworks which are being used in schools across the world. Our questioning program fitted very neatly into the "Habits of Mind" program developed by Costa & Kallick (2000), which we adopted to complement "Dimensions of Learning." Indeed, one of the habits of mind that Costa & Kallick identify as fundamental to intelligent behaviour is questioning and posing problems. The "Dimensions of Learning" and "Habits of Mind" programs further reinforced the notion that questioning plays a vital role in personal intelligent behaviour and classroom practice.

What The Research Told Us

Teachers certainly ask a lot of questions. On average a teacher asks one question every minute. This equals a quarter of a million questions in 10 years. A student, on the other hand, asks an average of one question per month. Schools are unfortunately to blame for this. In the first three years of life children ask as many questions as their parents but by secondary school they ask only 15%. Question asking indicates that someone is curious, puzzled and uncertain. It is a sign of being engaged in the topic. Unfortunately, it is rare for students to ask anything more than procedural questions.

There are many reasons for this. The pressure to provide the right answer, curriculum pressure to cover syllabus content, high stakes testing and examinations, and the need for the teacher to be "in control" have all been identified as inhibiting student questioning. One American report painted a very bleak picture finding that there are many classrooms where teachers pose only questions requiring simple factual recall. The teacher knows the answer and only wants to know if the students know it too.

Similarly, the questions and answers that do occur often take place in a bland if not boring or bleak intellectual landscape, with student answers meeting only with responses from teachers at the "uh-huh" level. Even more sobering is the observation that teachers' questions often go nowhere: extended stretches of questioning in which the information builds from facts towards insight or complex ideas rarely takes place. (Wolf, 1987, p. 1) Many questions are simply rhetorical "Are we ready to begin now?" Do you understand?"

What Can Be Done?

There is voluminous research to draw on. All over the world teachers have been grappling with this problem in classrooms, in schools and in nation-wide professional development programs. The good news is that with time and practice one can sharpen one's interactive teaching skills. The Internet provides hundreds of models of questioning. State departments of education across Australia have recognised how important improved questioning is in raising student achievement and have developed resources available to their teachers. One of the most useful sites is in Tasmania (http://ltag.education.tas.gov.au/effectteach/pedagogy/questioning.htm).

Types of Questions

Paradigms and models of questioning abound. Practically all refer at some stage to Bloom's *Taxonomy of Educational Objectives* (1956). It was revised in 2001 and its aim was to refocus educators on the value of the original but "incorporate new knowledge and thought into the framework"(Anderson & Krathwohl, p. 21). The major change is that it now adds a knowledge dimension to the cognitive *process* dimension. This knowledge dimension has four parts: factual knowledge, conceptual knowledge, procedural knowledge and metacognitive knowledge. There are three major differences in the process dimension. "The new levels are expressed as verbs ("apply" instead of application) which is consistent with the view that thinking is an action verb" (Walsh & Sattes, 2005 p. 33). Certain of the words have been changed. Knowledge now becomes remember, and the order of the last two has been reversed as evaluate now comes before create. The following sample questioning hierarchy from the History syllabus illustrates Bloom's taxonomy:

- Name the NSW Houses of Parliament (Remember)
- Explain how the votes for the Senate determine who will be elected? (Understand)
- In what ways is the war in Iraq similar to the Vietnam War? (Apply)
- Compare and contrast the Liberal and Labor Parties in Australia? (Analyze)
- Is torture ever justified? (Evaluate)
- Could a dismissal (like that of the Whitlam government in 1975) happen today? (Create)

Bloom's taxonomy has spawned many other schemes of classifying thinking and questioning. Aschner and Gallagher's Question System (1965) uses three categories: recall, convergent, divergent questions. Marzano (1992), whose research focused on habits of thinking and instructional strategies, supports these. His two-part

taxonomy uses recitation questions and construction questions. More detail can be found on his website (http://www.ceap.wcu.edu/Houghton/Learner/Think94/NCmarzanoThink.html).

Morgan & Saxton (1991) provide a list of 62 ways of classifying questions based upon the intention of the question. We encountered many ways of organising and classifying questions. One teacher divided them into fat and skinny questions, another into memory and beyond memory, or expressing and defending an opinion. Other models using De Bono's "Six Thinking Hats" (1986) and Gross, Sleap, & Pretorius's (1999) writings on differentiating the curriculum for gifted students give excellent examples of higher order thinking questions to use.

American educator Jamie McKenzie has been concerned with the impact of technology on learning. He has constructed the questioning toolbox which he explains in his website (http://questioning.org). "Without strong questioning skills, you are just a passenger on someone else's tour bus. You may be on the highway, but someone else is doing the driving" (McKenzie, 2001, p.15).

All of this can be overwhelming for teachers who want some simple formula to write good questions. Walsh & Sattes (2005, p. 40) have an excellent model of the "stems" associated with questioning and answering all cognitive levels. This would provide a convenient checklist and prompt for teachers trying to write questions There are many internet sites which link the verbs describing the thinking process required with the associated cognitive level. One easy to use model was created by the counselling service at the University of Victoria, Canada (2003) (http://www.coun.uvic.ca/learn/program/hndouts/bloom.html).

Teachers also needed to be encouraged to provide a range of levels of creative or emotional challenges as well as cognitive ones at different levels. There are eight processes identifies with creative thinking and examples of questions in this area abound on gifted and talented web sites. Nancy Johnson (1990) has written an excellent book Questioning makes the difference (1990) filled with usable models of creative questions:

Table 2. Processes Associated With Creative Thinking

Fluency-brainstorming many ideas	Flexibility-reflecting different viewpoint	Originality-creating new ideas	Elaboration-expanding and enriching existing ideas
Risk-taking-experimenting out of comfort zone	Complexity-adding depth to work already done	Curiosity-challenging established ideas	Imagination-Contemplating the impossible

Teachers need also to be encouraged to include questions that belong to the affective domain. Krathwohl (1964) included an affective taxonomy which was designed to be used in conjunction with Bloom's cognitive one. Questions, which challenge our emotions and beliefs, are often the ones students respond to best of all and can help teachers reignite student's interest in a unit of work. These questions have been used in English classrooms and reading circles for many years but should also be encouraged in other faculty areas. Questions used in reading circles include the following:

- What did you like most?
- What did you not like?
- What would you have done if you had been this character?
- What made this character act as he did?
- What values did the author use in this story?

Although we alerted teachers to these many models of questioning, for practical purposes most felt they would prefer to start with the content they wanted their students to acquire and then using a simple check list in their endeavour to write "good" questions. Providing a simple template on the school intranet based on the web quest model has helped teachers write more adventurous research assignments. The following plan for web-based lessons is based on Jamie McKenzie's "slam dunk lessons" (http://www.fno.org/sept02/slamdunk.html):

- The Essential Question and Learning Task
- The Information Source
- The Student Activity
- The Assessment Activity
- Enrichment Activities
- Teacher Support Materials

This template, which works very well on a school intranet and has been used many times at Cranbrook, can be found at its website (http://intranet.cranbrook.nsw.edu.au/Senior/DeskTopDefault.aspx?tabid=544).

For the students we found using the model of a familiar fairy tale and asking them to compose questions from each of Bloom's categories was an enjoyable, challenging and useful exercise in alerting them to the various levels of questions (Godhino & Wilson, 2004, p. 36).

Dillon (1988, p. 65) perhaps provides the simplest summary of what is needed:

To conceive an educative question requires thought,
To formulate it requires labour,
To pose it requires tact
None of this is mysterious and all is within our reach.

Essential Questions

These are distinguished from unit or topic questions because they have no obvious right answer. They are about concepts rather than facts. They try to lead students to the big ideas embodied within the discipline they are studying. They identify the core idea that the teacher wishes the students to understand and retain when they teach a unit. They can be asked across the curriculum and reoccur over the years. They are a useful organisational tool for, once identified, they can be used to plan both content and assessment. Essential questions or leading questions require the higher order thinking skills of analysis, synthesis and evaluation and should be asked in language which will engage the students and be as provocative as possible. Only a couple of essential questions should be used at a time so students are encouraged to think deeply about their answers. Often the questions are introduced and "unpacked" at the beginning of the unit and then as knowledge is acquired students are challenged again and again to respond to the question. Erickson (2002) suggests that these

questions should predominately ask "why" or "how" and should take the form of concept-verb-concept.

These questions are hard to write and lend themselves to co-operative planning and Wiggins & McTighe (1998, p. 29) suggest sharing the questions with other faculties. Teacher-librarians with their ability to work across all departments could help facilitate this co-operation. This type of integrated, interdisciplinary study provides tremendous opportunities for enterprising teacher-librarians to build information literacy skills and behaviours into more coherent curricular across a school. Teacher-librarians are not so tied to the subject content and can attempt to persuade teachers to give up topics in favour of going deeper into a unit of work. As Schmeid (n.d.) puts it in a lecture avoid " the mile wide, inch deep curriculum".

 When a year 7 class was studying the middle ages the library staff helped organise the unit around the two questions. How can torture be justified? And why do nations go to war over religion? Students found the questions challenging but the teachers were pleased by the depth and complexity of the students' answers. A unit on Ancient Egypt adapted some essential questions created originally by Caves (2004). How does written communication give a cultural advantage? How were maths systems used to communicate ideas? How do artefacts indicate how cultures functioned? Why do some systems survive and others vanish? How do tools influence cultural development? How has cultural development been influenced by climate? These examples show how essential questions help promote a cross curriculum approach to concept development. Concept maps and Inspiration software are useful tools to help students organise their responses to these questions.

Planning Questions/Structuring

The first step in planning a question is to ask yourself: what do I want my students to learn? It is all too easy to become overwhelmed by content and then fall into the trap of asking questions that just require factual recall. If, however, you can identify the key concepts underpinning this content you will find it easier to identify the questions to ask. Planned questions provide structure and direction to the learning experience. Walsh & Sattes (2005, p. 50-51) provide an excellent checklist that would be helpful when planning questions.

There is much advice available on the form each type of question can take. However, it is the content of the question and its appropriateness to the audience and the subject matter, *not* its form, which usually determined its success. (Dantonio & Beizenherz, 1990). Although keeping lists of types of questions in front of you may seem a good idea, often the best questions come as a result of brainstorming ideas with the team of teachers who are to teach the unit. Bouncing ideas off each other leads to some very creative and inventive questions. By gathering all these questions and reflecting on them afterwards you can generate a broad cognitive range of challenging and interesting questions.

The second step in refining your questioning techniques is to analyse the answers your students may give and your responses to those answers. It is important to surprise your students with your questions and even to shock them at times by posing the question in the form of a provocative statement and asking them to respond. (Freedman, 1994, p. 65)

Equally crucial in the pedagogy is the necessity to engage students emotionally in order for them to see the relevance of studying that particular part of the curriculum. There is a taxonomy of personal engagement and research (Morgan & Saxton, 1991, p. 25) that shows has unless a student is either asleep or actively answering the questions being asked most teachers are unaware of the level of engagement of their students with the lesson. The emotional climate in the classroom is an important indication of the quality of learning taking place. This is where the "essential question" can be so useful in attracting and sustaining the student's attention. It can link the content under consideration with ideas and issues which are universal and about which every student can have an opinion and feel some sympathy or empathy.

Questions can be unsettling, embarrassing, confronting and even frightening for some students. The inquisitorial nature of questioning needs to be appreciated and a climate of tolerance, acceptance of wrong answers, and respect for any attempted response be established. (Schurr, 2000)

The language of the question

No matter how long you have been teaching, finding just the right word when you want it to frame your question can be elusive. Many of us unconsciously use jargon or terms that have little meaning for our students. Formulating your questions ahead of the lesson and having a colleague critique them can help to make questions more precise and purposeful, less ambiguous, and makes the intent clear. A teacher-librarian skilled in questioning techniques could offer this service to their teachers. Incomprehensible questions result in inept answers and frustrated students (and teachers!).

Looking at a transcript of the questions asked in a class can be embarrassingly revealing about the fluency of our questioning and communication skills. Walsh & Sattes (2005, pp. 174-194) provide observation checklists which when used in most classrooms provide a rude shock and a chastening authentication of the research findings on classroom question practice. Partnering a teacher in this way, a teacher-librarian could be of immense service in raising awareness however it also requires a great deal of tack and professional courtesy. Teacher-librarians frequently see assignment questions, which are wordy, imprecise and simply invite plagiarism. Having acquired some expertise in questioning they can offer to rework these assignments but once again this can only happen when a climate of trust and co-operation exists. Following the suggestions below may assist in wording the question:
- Questions that begin with "Wh…" (who, when, where, what, which and why) produce longer and more varied responses from students.
- Avoid questions which demand only a YES/NO response (Can you …, Do you know …, Will you …, Are you …, Have you …, Were you …).
- Use the following as starters for your questions: What are …, In what way …, How …, Why …, What is there about …, How do you know …, What if …
- Use careful language in formulating questions by
  - o choosing the verb carefully: think about what cognitive operations are needed to think through the content to achieve your objective,

- placing a cue within the question to signal the type of thinking you would like your students to engage in: choose action verbs such as observe, recall/remember, compare/contrast, analyse, classify – for example: in what ways can these items be grouped together? or what labels can we place upon these groups? or how can we classify these items?
- making students aware of the differences in the thinking processes – model and scaffold the process as part of your regular classroom practice

It is important to pitch the questions at the right level and position them at an appropriate time in the lesson. Teachers should avoid asking questions too soon. (Wilen, 1992). Excessive questioning can lead to students who are dependent and passive. For example, it is far better to ensure that some understanding of "what" has taken place before asking "why" and "how". As one teacher said: "I asked some really higher order questions to get them thinking [but] I got nothing but low level answers" (Morgan & Saxton, 1991, p. 7).

By the same token it is important not to insult your students by asking questions that are too easy or repetitious. For example, while recall questions can be used effectively at the start of a lesson to focus the students on a topic, their continuation throughout the lesson can result in boredom, misbehaviour and disengagement from the learning process.

Wait Time

An effective and necessary pattern is for a teacher to ask a question, pause, and then call on an individual to respond. However, on average a teacher waits less than a second after asking a question. Mary Budd Rowe, a science educator at Florida University studied student-teacher interaction over a six-year period. Her research shows that if a teacher waits about five seconds after asking a question students tend to give longer and more thoughtful responses. Furthermore if the teacher waits another five seconds or so before moving on from a students answer, the responding student will often answer more completely and at a higher intellectual level. According to Tobin (1987) teachers who consciously managed the duration of pauses after their questions and provided regular intervals of silence during explanation created an environment where thinking was expected and practiced. He also found higher achieving students were consistently allowed more "wait time" than less able students. The consequences for classroom management are obvious.

Some of the teachers in our target group actually felt that the rapid firing of a fusillade of questions was a method of maintaining concentration and interest. While this may be true in some situations, it is important that the speed of question and answer does not take precedence over the thoughtful examination of the issues and the experience of learning. Consciously practising wait time, which is much harder than it sounds, also produced pleasing results.

Walsh & Sattes (2005) suggest that teachers should work in teams and include guided practice to help change entrenched habits in asking questions. They provide a series of observation forms to assist teachers to evaluate their techniques (pp. 147-149). Teacher-librarians should ask a colleague to observe their techniques

in asking questions when providing reader guidance. It is humbling to learn how little time we allow our students to answer our questions about what books they like to read, and which book they read recently that they enjoyed.

Try To Avoid Predictable Patterns In Your Questioning

Every teacher observed had an idiosyncratic pattern in the way they posed questions. Some favoured the right side of the room, others the left, some asked students in the back and some students in the front. Many concentrated on a wedge up the middle of the room. It is instructive to have someone identify your own pattern and then deliberately vary it to include those students who have probably worked out where it is safest to sit to avoid being a target. Sitting in on lessons the teacher-librarians identified students who never asked or answered a question and this surprised and alerted the teacher to be more conscious of including all his class in the questioning process.

Prompting and Probing, Listening, Responding

Just as in reading pedagogy the strategy of pause, prompt and praise works for questioning as well. How ever well-prepared our questions may be, dealing with the unpredictable responses of our students and guiding them by our replies and further questions to elicit the best answer lies at the heart of good teaching. Teachers need to develop finesse in responding to the student's answer in such a way that the students perceive learning as a dialogue in which everyone's thoughts and feelings are important elements in developing collective understanding.

This is where listening with understanding and empathy is also crucial. The teacher must understand what is being said and then formulate a response that accurately reflects the students' ideas. Teacher's should choose a follow-up response that takes the students thinking one step further; or recognise when the interactive dialogue is finished and it is time to move onto the next student. Make sure that your responses are always respectful, non-threatening and productive. Sadker & Sadker (1985) suggest that too often student's replies meet with little more than "Uh-huh". Such a response stops inquiry dead in its tracks. On the other hand, if the teacher is skilled at encouraging critical thinking they can create stepping-stones for ideas that can spiral out from the lesson. "It is almost as if the questions posed formed a kind of catwalk of realizable possibilities along which a student can move towards new insights" (Hunkins, 1989, p. 35). Such improvised questioning takes practice, but the results are rewarding. The following list of teacher cues below maybe helpful in fostering this classroom dialogue:

- Ask for an example
- Ask does it always apply
- Ask how it fits in (relevance)
- Are there any exceptions?
- Why do you think that is true?
- Is there another view?
- How do you know?
- Tell me more

- Ask a series of simple questions to clarify the answer

Also try to resist the evaluative response. We may feel we are encouraging and affirming with our use of "Good idea," "Well done," "That's interesting," or by trying to stimulate further discussion. However research shows the frequency and predictable nature of these responses renders them almost useless in facilitating the discussion. Hubbard (1993) found removing yourself from always being the mediator often is far more productive and encourages interactive discussion between the students.

Sequencing

Research indicates that of the thousands of questions asked 53% were answered by one student while 47% were part of a sequence of two or more questions. Only 10% were part of a sequence of more than four questions. Questions were often used just to puncture the teacher's monologue and keep the students awake. A discussion which consists only of questions will drive the discourse "Upwards and outwards" too rapidly without allowing students to think reflectively "in and around" the idea. New questions invariably shift the discussion to new issues (Wassermann, 1992). A good sequence of questions is like a rally in a game of volleyball, the ideas bounce from student to student, until finally someone drops the ball, and the sequence ends. "The classroom is then characterised by unanswered questions rather than unquestioned answers" (Morgan & Saxton, 1991, p. 112).

Teachers need to become more tolerant of conflict and confrontation in their classrooms as they increasingly let their students' debate and resolve the issues in discussion. It is important to develop in our students the ability to identify and cite good reasons for their opinions. This is not passive learning and may initially be met with resistance by students who are used to being supplied with all their answers. They will have to use their mental energies and may resist the intellectual effort.

Content

Teachers may worry that questioning and discussion delays the lesson, and that the required content may not be adequately taught. However as Dillon (1988, p. 54) wisely said "we should be in the business of helping students uncover, not to cover, the curriculum." In coverage-orientated instruction the teacher ticks off the topics taught and moves on. As one wit put it, this approach might be termed "teaching by mentioning it" (Wiggins & McTighe, 1998, p. 21). Encouraging students to actively participate in the classroom discussion creates understanding of the key issues not just knowledge of them. "Once you have learned how to ask relevant and appropriate questions, you have learned how to learn and no one can keep you from learning whatever you want or need to know" (Freedman, 1994, p. 14).

Student Questioning

Hand in hand with our plan to model good questions in the classroom is the desire to teach our students how to become better questioners themselves. For this to happen the students must be consciously taught the different ways of asking

questions and how to identify the most appropriate question to assist them in finding the answer.

Jamie McKenzie used the analogy of a questioning toolbox where each question type became a tool that had a specific purpose: "Thinking requires a choice of questions. For most students who have never thought consciously about how they think or question, the thinking tools lie unsorted, unlabeled and unidentified in the bottom of the tool box" (McKenzie, 2001, part 2). Students who are taught to create a typology of questions and can learn to label the questions being asked will find that this metacognition assists them in their critical thinking. They will select the correct tool to do the job at hand. "A classic concept is that learning occurs when the teacher asks the questions and the student answers them but really it does not occur until the learner needs to know and can formulate the questions for themselves" (Morgan & Saxton, 1961, p. 87). Students should be encouraged to constantly ask themselves questions as they read. DePinto (2000, p. 138) provides a useful list of these questions:

- What does this remind me of, or how is it similar to something else I know?
- Why did this happen, or what caused this?
- What evidence supports this?
- How valid are these assumptions?
- Do I believe what is being said here?
- What persuasive techniques are being used?

Teacher librarians can assist in improving student questioning skills by working co-operatively with teachers in lesson preparation using a variety of questioning "games." Examples of these games can be found in Godinho & Wilson (2004) and in Johnson (1990):

Table 3. Questioning Games For The Classroom

Role-play questioning	One student pretends to be a character/historical person and the class tries to guess by asking yes/no questions. Highlights wording
Interviewing	Students prepare a series of questions to discover information. Highlights pitching, putting and sequencing
Textbook question analysis	Students classify the questions in their textbook according to Blooms taxonomy. Highlights higher order thinking
Was it possible?	Students list two facts events and other students have to decide it could have happened. Highlights divergent thinking
Jeopardy	Teacher supplies the answer and the students write the question. Available online Highlights wording
What would happen if	Teacher presents a hypothesis and the students have to brainstorm possible consequences. Works well with Inspiration software. Highlights creativity
Thinking on your feet	Students line up and decide by questioning their classmates how they feel about controversial issues. Highlights affective questioning
Lucky dip questions	Teacher puts question starters in a box and the students must finish the question on the current topic. Highlights wording

Apart from assisting with the intellectual demands of school, teaching our students how to question is one of those essential life skills so important in a world of "data smog" and information overload. Every school must surely have in its mission statement the desire to create discriminating thinkers. Teaching students how to question puts them on the right road to achieve this. "Ask a man a question and he inquires for a day; teach a man to question and he inquires for life" (Wolf, 1987, p. 7).

There can be no doubt asking questions is a complex and challenging task and many exposed for the first time in many years to the ideas discussed in this paper may find it daunting. This is why I believe the teacher librarian can be of great support in leading, guiding and encouraging teachers in their endeavours to improve their questioning techniques. From their privileged position overseeing all faculties they can sow the seeds of change by constantly prompting and reminding teachers of the value and efficacy of good questions. They can package the good ideas found in the research and on the Internet into manageable parcels for the busy teacher to absorb and implement into their teaching practice. Working in this way, however slow the progress, the teacher-librarian can be a powerful force for change within the school.

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