Transforming research tasks to avoid plagiarism: teacher and teacher librarian collaboration

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In 2006-2007, Scotch College, along with 3 other schools was awarded an Australian Research Council (ARC) grant to undertake research into how students use information – "Generating knowledge and avoiding plagiarism: Smart information use by secondary students" The research involved collaboration between teachers and teacher librarians to develop models of teaching in various subject areas which encourage students to generate new knowledge and avoid plagiarism. This paper will outline steps towards building a culture of collaboration and team work; strategies employed by teacher librarians to reduce plagiarism; and reflections from teachers, teacher librarians and students.

"Scotch College is a large independent boy's school located in inner suburban Melbourne. It has a non-selective (in terms of academic ability) intake, and a long-standing commitment to providing an all-round education, traditionally with substantial academic emphasis." (Donaldson, 2005)

Established in 1851, it is a Presbyterian school for boys from prep- year 12. Enrolments total approximately 1400 students in the Senior School and 400 in the Junior School. The focus of this paper is on the students in the senior school years (7 - 12). The Senior School Library is staffed by a Head of Library and Information Services, three other teacher librarians, three librarians, a technologist and a library technician

Teaching Staff

There are 125 teachers, many of whom have taught at Scotch for over 15 years and some of these teachers have exhibited many of the characteristics identified as being counterproductive to information literacy development (Bruce, 1994):

- heavy dependence upon "teaching/lecturing" for the transmission of information
- providing all resources required by students rather than encouraging students to explore knowledge bases independently
- heavy reliance upon teacher-generated material
- lack of an understanding of the skills of information literacy
- awareness of plagiarism as a hot educational issue, but lack of a policy in addressing it
- setting "find out about" assignments

• teacher generated questions, rather than student generated enquiry

Teacher and teacher librarian collaboration begins

The Information Literacy Project (ILP) 2001-2002

In order to come somewhere near to meeting the benchmarks identified by Henri (1999) as hallmarks of an "information literate school community" there was a need to change some of the teaching practices that were embedded at Scotch.

With this in mind, at the start 2001 when the Director of Educational Research and Development invited Heads of Department to apply for research money for their department, the library applied to undertake an Information Literacy Research Project in conjunction with Charles Sturt University. The project was accepted and the information literacy landscape began to change.

Six classroom teachers, one educational support teacher and three teacher librarians, worked together to embed information literacy skills into units of work. Classes involved were from year 8 to year 11 and subjects included Economics, English and Science.

It was anticipated that this project, while building on existing strong programs, would be effective in demonstrating that teachers and teacher librarians operating as teams in a planned and collaborative way will improve the chances of improved learning outcomes and information literacy skills for students.

What were the philosophical outcomes from the Information Literacy Project?

There was a greater awareness and analysis of the way teachers deliver research assignments to students; a raising of awareness and questions about the way students research; an undertaking to encourage opportunities for teacher and teacher librarian collaboration; an awareness of the need to develop strategies to improve information literacy skills in students; and empowerment of teachers to be information literacy mentors for their colleagues

An important tangible outcome of the ILP was a recommendation that the teacher librarians compile a handbook for use by teachers.

This was called The Information Literacy Handbook. It was distributed to all teachers and includes:

- an explanation of the information process
- a continuum of student learning from year 7 to year 12
- a skills checklist from year 7 to year 12
- an explanation of the role of the teacher librarian and the role of the classroom teacher
- templates and rubrics to support the six steps in the information process

Teacher librarians begin collaborating with teaching Teams at Years 7 and 8

At Scotch in Years 7 and 8, students are grouped in Forms and teachers of Year 7 are organised in groups of Teams; a Team usually consists of three, but sometimes four teachers.

The Team teachers cover the 'core' subjects of English, Maths, Science, Geography, History, French or German and now also includes a teacher librarian.

The Team role of the teacher librarian includes:

- organising orientation sessions in the library for all the new Year 7 classes
- being directly responsible, through liaison and discussion with Teams, for the introduction, consolidation and assessment of Information Literacy skills
- assisting Teams with developing and running meaningful and authentic research projects throughout the year
- attending Team meetings as an integral member of the Team
- becoming familiar with pastoral care and discipline issues within the Team
- establishing Literature Circles for all Year 8 Teams
- mapping the skills developments of each Team by using the Information Literacy Handbook and suggesting the skills focus for forthcoming project work

Three years on......Australian Research Council (ARC) Project

In 2005, two researchers from Charles Sturt University, Dr Joy McGregor and Dr Kirsty Williamson approached the Heads of Library and Information Services at Scotch College and three other secondary schools with a view to forming a partnership in applying for a Linkage Grant from the Australian Research Council (ARC) to investigate and implement interventions in student use of information.

We were successful in being awarded a grant and our project "Generating knowledge and avoiding plagiarism: Smart information use by secondary students" commenced in 2006.

Phase One of the project "explores student and teacher definitions and understanding of plagiarism, students' ability to recognise plagiarism, and the degree to which they plagiarise in their own work" (Williamson, 2006)

In Phase Two we are "developing models of creative teaching that will assist students to generate new knowledge and avoid plagiarism" (Williamson, 2006). This stage focuses on teacher and teacher librarian collaboration to deliver learning opportunities for students which will endeavour to raise awareness of, and attempt to eliminate plagiarism.

Phase Three "will develop an electronic toolkit based on the research results, to be used by teachers and teacher librarians to develop learning situations where students use information without plagiarising" (Williamson, 2006)

Much has been written about the prevalence of plagiarism and also of ways of detecting it in students' work. Through the ARC project we are focussing on teachers and teacher librarians collaboratively dealing with prevention rather than detection of plagiarism.

Teacher librarians invite teachers to form a partnership

Four teacher librarians and four teachers formed the ARC team at Scotch. Deciding on which teachers would be approached to join the project was cause of much discussion. We wanted teachers from a variety of year levels from different subjects to undertake a unit of work that would lend itself to research. We targeted teachers who had a reputation for concern about the way students used information and who would be comfortable team teaching with teacher librarians. As Scotch has four teacher librarians it was decided to allocate two teacher librarians to each project. This was helpful as we all teach collaboratively across all year levels and in the case of a timetable clash with our ARC classes, there would always be a back-up teacher-librarian available. Another reason for including two teacher librarians in each project was the opportunity for quality collaborative projects that the ARC project afforded. This was being seen as a way of modelling an assault on plagiarism for collaborative planning and teaching in other classes.

All four subject teachers who were approached to be part of the ARC Project accepted the challenge and the planning began. For many of the teachers the units were ones they had taught before, but the difference this time was that the teacher librarians would be involved in the planning of the unit with a view to eliminating/minimising plagiarism. This was tackled differently in each of the classes listed below.

Subject	Year level	Торіс
Science	Year 8	Water Restrictions
History	Year 9	Gallipoli
Design Technology	Year 10	Product Design
English	Year 11	War Poetry

In the year 9, 10 and11 classes the teacher taught the subject matter and the teacher librarians taught the "plagiarism" content in alternate lessons. Most of the plagiarism content was taught over five lessons: What is plagiarism? How to cite your sources; Paraphrasing and summarising; Note-making; and Writing bibliographies.

The exception was the yr 8 Science unit, which will be covered in more detail here.

Planning the Year 8 Science Unit

Timing is everything in a busy curriculum. Scotch still has exam based assessment, so there are limitations and restrictions on how much time a class can devote to a special project, which fortunately did not impact on this class.

Two of the teacher librarians met the Science teacher to discuss topic possibilities. After some useful and informative discussions it was decided to focus on Water as an issue. Australia has been suffering a seven year drought and tough water restrictions were being imposed throughout the country. It was felt that the topic would have immediate interest for the boys as all of us are being affected in some way by the water shortage. In the initial planning meeting we decided that the topic would revolve around a contention "That Melbourne's water restrictions are too harsh".

The Science teacher liked this idea although had no experience of organising debates and so was reassured to hear that the teacher librarians would take care of that part of the unit. He undertook to start the unit by teaching scientific concepts and then the teacher librarians would plan five lessons as outlined above. It was decided that the boys would have to complete an essay where they outlined arguments both for and against the contention. The final part of the unit would be a line debate with the whole class participating. The lessons would take place in consecutive Science lessons of which there are 5 in a 6 day rotation.

All lessons would take place in one of the large collaborative classrooms in the library where there was data projection, a teaching space and also 26 computers. Using a space within the library meant that the boys would also have access to print resources, along with the 27 web sites (demonstrating the importance of this topic in Australia) which had been added to the library home page for this unit.

Negotiating the task with the students

It was initially expected that the teacher librarian involvement in the classes would essentially be teaching "How to avoid Plagiarism in Five Easy Lessons" and then some guidance in finding appropriate sources of information.

This unit developed quite differently to what had been anticipated. A critical development in the evolution of this particular unit was when true collaboration (as opposed to teacher librarian assistance) between the teacher and teacher librarians occurred at the end of each lesson. Time was taken to check on progress and to review the strategies that were to be used in the next lesson. We knew we needed to slow down and incorporate time for using the scaffolds we were putting in place in terms of teaching paraphrasing, summarising and the concept of using "For and against" sheets. The original allocation of 5 periods was stretching out before us and it was clear that the teachers and the students were enjoying themselves immensely. The boys were learning something new and challenging, within the framework of the safety of a topic that was probably being discussed around the dinner table at home

We were all very aware that the boys were challenged by the fact that they were discovering that up until this unit they had been merrily plagiarising most of their research work. In-text citing was a completely new concept and hitherto they had believed that paraphrasing was not plagiarising. They were struggling with the guided note-making exercises we had given them. We had a big task ahead and could see almost immediately that we were going to have to adopt a model of 'slow learning' for them if we were to change behaviours and raise awareness of the nature of the habits that had been forming in their approach to information use.

A change in direction...

We were very keen for them to build emotional intelligence by looking at both sides of the water restrictions debate. Many of the students found this difficult. The teachers discussed the issues with the boys and decided that they should continue to research both sides of the argument while in the essay they would be able to take one side. This seemed to inject some new energy into the group as the task appeared achievable and not so daunting. During the course of each lesson we would ask the boys to stop their research and one of the three teachers in the room would comment on an interesting fact someone had found and ask the boys' opinion of what implications this might have for the contention. This would often spark a vigorous exchange between some of the boys and on one occasion the teachers quickly got the boys into position for a spontaneous line debate. We knew we were on to a winning strategy when there were groans all around when the bell went. Naturally a taste of the excitement and interactive nature of this type of debate was the perfect prelude to the real thing and the boys' research took on a life of its own.

SCOTCH COLLEGE ARC PROJECT 2007 YR 8 SCIENCE- Lesson Outlines

Skills	Templates/Resources	Activities
Lesson 1 What is plagiarism?	Plagiarism – what is it? sheet	 Talk about plagiarism Talk about general knowledge, and sourced knowledge Direct quotes OR paraphrasing Acknowledging ideas and words
Lesson 2	Note-making overview sheet	• Read note making sheet
Note making	Note-making practise sheet	• Start note making exercise on water article (collect at end)
Lesson 3 & 4	Note-making practise sheet – completed model version Notes "for and against" sheet	• Collect Water ration note-making exercise
Web Resources	Homepage pathfinder	• Use online pathfinder and search engines to find online resources
-using	Library home page	• Use notes sheet for note making
2	http://library.scotch.vic.edu.au/research/bibliographies.html	• Record webpage details to aid in writing up bibliography
Lesson 5	Notes "for and against" sheet revised to	Revise key definitions
Web Resources	"too harsh" and "not harsh enough" notes sheet	• Use notes sheet & modify headings
		Mini line debate

Skills	Templates/Resources	Activities
<i>Lesson 6</i> Essay preparation	"Essay scaffold" sheet All Notes sheets Web resources bibliography sheet	 Return corrected Water note-making exercise Planning 500 word essay Transfer argument points from notes sheet to essay scaffold sheet Individual assistance in planning essay
Lesson 7 Essay writing	Johnson, Natasha (2007) Urban areas facing tougher water restrictions. "7.30 Report". Broadcast: 08/03/2007 http://www.abc.net.au/7.30/content/2007/s1867108.htm	Watch video and take notesRevise main points as classCheck notes that were taken
<i>Lesson 8</i> Essay writing	Plagiarism assessment rubric	 Identify main components of assessment submission Review model of referencing Individual assistance on essay writing and referencing
<i>Lesson 9</i> Reviewing your work	Plagiarism assessment rubric All notes All essay planning scaffold sheets	 Individual assistance on essay writing and referencing Check completed work against assessment rubric Check sources & write bibliography
<i>Lesson 10</i> Submit work		Final check against plagiarism rubricSubmit essay
Lesson 11		Line Debate

As can be seen from the lesson outlines, this unit grew to be nine periods of instruction with an additional period to assist the boys complete their bibliographies and check their work against the plagiarism rubric. The final two periods were useful, because it meant that ALL boys were given the opportunity to have their work checked by one of the teachers. This was particularly useful for the weaker students, while the boys who had completed the essay and the bibliography were able to start thinking about key arguments they wanted to use in the debate.

An edited version of the debate will be shown during the conference presentation and templates and rubrics which were used will be available

Teacher Reflection from Stage TWO of the ARC Project

It would appear from the focus groups conducted by the researchers that the teaching staff often had a different perception of what the focus would be in the lessons to that of the teacher librarians. For example:

Teacher: "I think they had a greater focus on teaching research skills and I think they had a better grasp of teaching about plagiarism, because they have a better grasp of research skills than I do. My focus at the start was on not using too many lessons out of the curriculum and on the logistics"

It is quite clear that all teachers are confronted with a tight curriculum and little discretionary time: "*Two major problems in teaching is that there's too much content to get through and there's too much frequent assessment....whereas we are not spending enough time to teach essential skills*"

There was also acknowledgement that there was some worthwhile professional learning going on for some of the teachers during the projects: As a Science and Maths teacher you don't tend to ...a lot of thought into plagiarism and note taking. It has been a good professional development activity for me"

There was a feeling from some of the teachers that the teacher librarians were labouring the point and "*needed to get going*". This is understandable when class time is so precious and they have "*sacrificed class time*", however it is probably one of the limiters or indeed a stumbling block to collaboration. This sense of "*My class*" may well undermine collaboration in some educational settings.

Other teachers acknowledged that "there is an uneven awareness of plagiarism among teachers...some just tolerate it...the standards vary too much" and that classes need to be "given explicit instruction on how to avoid plagiarism through projects involving their teachers and teacher librarians"

Teacher-librarian Reflection from Stage TWO of the ARC Project

The teacher librarians involved in the ARC project were overwhelmingly confident that the potential for collaboration had reached an exciting milestone at Scotch. Not only had involvement in the project given them credibility as "teachers", it had also brought to the attention of the teachers that student use of information was inherently flawed and that urgent remedial action needed to be taken.

There was a true sense of partnership with the class teachers "the teachers....were really keen to co-operate and to change their practice" and 'in the past the teacher's focus has been on the content and our focus has been on skills and our focus would have been secondary to the teacher's focus"

There has been a flow-on effect across other classes as more teachers are engaging the teacher librarians to work with their classes in changing the way research projects are set up. "*Teachers now want to discuss the way the project is set up and that's what we have always wanted and tried to do*".

The teacher librarians were concerned in the same way that the class teachers were, in that students will experience a lack of commitment from some teachers towards addressing plagiarism "they're going to go into other classes and the teachers aren't going to make a fuss about it (plagiarism), that's the problem".

There was a belief that the ARC project has been a stimulus for change and the increased amount of collaborative planning that was going on in Teams would mean "*that there won't be too many year 7 teachers who are letting students get away with plagiarism now*".

Student Reflection from Stage TWO of the ARC Project

The students were particularly appreciative of having more than one teacher working with them "It was good because you could get help straight away and constantly" and "It is more convenient because it makes it easier to discuss your ideas with a teacher sooner"

They were generally positive about their progress towards an understanding of plagiarism and how to avoid it.

"I hadn't learnt about plagiarism before and this helped me to understand what it was and why you couldn't do it" (year 8). However, one boy issued a warning and a danger for all teachers "I found it boring because we cover this every year in class and I have heard the same thing over and over again", while at the same time another student declared "I'd never heard of plagiarism before".

There was an alarming trend in all student focus groups which indicated that certainly the students are now more aware of what plagiarism is, why it is wrong and how to avoid it, however there was a cavalier attitude among the yeas 8s, and 9s in particular "*that I learned more about plagiarism, but I will still do it*"

There was some acknowledgement that "*this will help in later years*", but there were also indicators that unless teachers actively pursue an anti-plagiarism policy, along with redesigning class research projects there will be no change in the behaviour of the students until they reach senior secondary years and by then the consequences are generally much more serious.

A comment that probably summed up the outcome across all the classes was "I knew what plagiarism was, I just didn't realise I was doing it"

While collaborating with teachers throughout the ARC project and in the normal course of our work teacher librarians:

- Encourage the teachers to review their aims and expectations
- Analyse the way assignments are being delivered to students
- Work with teachers to plan instruction

- Raise questions about student research methods
- Develop interventions to assist students to pose new questions and create new knowledge
- Encourage teachers to be mentors for their colleagues in transforming research tasks to avoid plagiarism
- Encourage students to accept responsibility for their own learning

Conclusion

At Scotch, teacher librarians have been collaborating with teachers in the classroom and also through a wide range of co-curricular activities, including sport, drama, music, services, debating, cadets, camps and tours for many years. On professional development days, teacher librarians have been consistently working with teachers to inform them about the content of the library home page as a resource for teaching and learning; to explore creative ways to incorporate the teaching of information skill into the curriculum; to develop strategies for assessing information literacy skills; to develop a continuum of increasingly complex information literacy skills across years 7 - 12; and to encourage teachers to set research tasks that eliminate plagiarism.

We have now reached an exciting milestone at Scotch College and it is hoped that the future of teacher and teacher librarian collaboration encourages positive and responsible outcomes in the way students use information.

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