

‘BODY IN THE LIBRARY’: A CROSS-CURRICULUM TRANSLITERACY PROJECT

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ABSTRACT

In 2010 students at St Joseph’s College, Hunters Hill, in Sydney Australia undertook research with a difference – a *Body in the Library* murder mystery. The focus of this project was to facilitate deeper learning for the students by creating an authentic learning experience incorporating research and literacy skills across disciplines. In Year 8 English, students learned about the literary conventions of forensic fiction in their study of the crime novel, *Framed* by Malcom Rose. In Year 8 Science, students learned about a variety of scientific forensic methods for solving a crime, including: analyzing dental records, fragments and fibers; fingerprinting; shoe-printing; and the application of DNA samples in criminal investigations. Their comprehensive 22-page Forensic Science workbook covered all the crime scene basics and included fun forensic facts.

KEYWORDS

Australia; literacy; Information literacy; Project-based learning ; Multi-modal learning; Knowledge construction; Science curriculum; English curriculum.

BACKGROUND TO THE PROJECT

A 21st century conception of learning is about much more than adopting new skills and integrating them into the curriculum or purchasing new technologies and placing them in classrooms--it is the fundamental shift from a teacher-centred learning environment to a student-centred one (Zmuda, 2009). In such a context school libraries must have flexibility and personalisation at the core of services, bringing literacy opportunities and information literacy strategies and activities together by embedding them in multi-modal projects. Information literacy needs to be a foundational discovery activity that shows students how to investigate and walk through data with wisdom. Engaging students in opportunities to read and write, explore and explain, think and deduct are all the more interesting in our multi-modal 21st century learning environments. The key to effective adaptation and change in response to these changing needs is to take learning projects away from assigned topics to projects that change the balance between the student and the educator so that an information professional’s personal relationship with students can also deeply affect learners’ engagement with information literacy activities (Shenton & Fitzgibbons, 2010).

At St Joseph’s College, Hunters Hill, teachers are working with boys ranging from the ages of 11-18 to develop quality literacy and learning experiences. Literacy is understood to be essential for all learning, and the requirement for addressing reading and literacy skills have been embedded in all subject curriculum areas for many years now by the New South Wales Board of Studies curriculum authority in the State. Nevertheless, teachers are concerned and interested in responding to the emerging demands of 21st century multi-modal learning.

Researchers have often expressed a concern regarding boys’ literacy. An Australian report on boys’ literacy and schooling (Alloway et al, 2002) describes an inquiry into the basis of the common finding that boys achieve lower literacy scores than girls on literacy tests and assessments, and provides recommendations to schools. *Recommendation 4* from the study provided a rationale for teachers to consider a review of their literacy strategies so that they focused more on the authentic learning needs of boys:

That teachers construct literacy classrooms as active environments for learning by maximising ‘hands-on’ learning through multiple textual modes; by providing opportunities for students to take control of their own learning; by taking account of students’ backgrounds and experiences; and by focusing on maintaining a productive sense of self among students as literacy learners. (p. 207)

Creech and Hale (2006) also provided insight into the value of literacy in Science instruction by creating a climate that supports inquiry in both science and literacy learning. Through a focus on metacognitive conversation and different “texts” of science, students are able to learn that *text* includes labs, data, and their own work, and that *reading* is an active problem-solving process.

The International Society for Technology in Education standards (NETS, 2008) for students set the need for the appropriate integration of technology into the literacy and knowledge construction learning needs of the students by supporting:

- Creativity and innovation
- Communication and collaboration
- Research and information fluency
- Critical thinking, problem solving, and decision making
- Digital citizenship
- Technology operations and concepts

Teachers at St Joseph's College wanted to find a way to meet these challenges while also facilitating robust science discipline learning and literacy experiences for the full cohort of 160 boys in Year 8 (aged 13-15 years). Willhelm and Smith (2004), in their research on boys and literacy, found that boys talked passionately about their interests. It was 'passion' in a topic that inspired them, and this passion often had literacy-related components. It seemed that 'passion' should be the key--that somehow the interest of all the students needed to be piqued in a new way to better teach the existing curriculum requirements in both Science and English. Would this be possible?

DESCRIPTION OF THE PROJECT

The project targeted all 160 students studying English and Science in Year 8. The content of the course work in each subject area already existed and had been taught in previous years. However, teachers sought a more collaborative, cross-curricular project-based learning experience that would address their underlying concerns about literacy and information literacy knowledge development. The program of study was scheduled to take place within a period of 8 weeks during July and August 2010, as part of the overall learning program of each subject area.

AIMS AND OBJECTIVES

The aim of the project was to provide a cross-curricular, multi-literacy approach to reading, research and scientific investigation. As a result of an agreement to collaborate between the Science and English faculties, the school library team was invited to develop a significant learning project that incorporated the key elements of learning from each discipline within the context of a project-based learning activity. The project was designed to use media technology to support core reading and information literacy learning. This was not a project with a focus on online interactions--rather it was a project utilising multimedia to support critical thinking through an enhancement of an authentic learning experience.

The core knowledge and content learnt in the English and Science curricula were taught as usual, with few program changes to the existing syllabus documents. Components of learning and assessment for each subject area incorporated the following elements:

English curriculum

- Study of forensic fiction and different sub-genres of mystery fiction (this also provided an opportunity for supporting literature displays in the library)
- Study of famous fiction forensic films/novels/characters
- Character and plot analysis, including the relationships of clues, events, and people in solving a crime.

Science curriculum

- Study of forensic science and the scientific method required (this provided an opportunity for non-fiction book displays in the library)
- Crime scene basics, protocol, techniques, scientific evidence.
- Police techniques for investigating a murder. i.e., interviews, ID parade, CTV security images.

The information from both English and Science were then 'put to the test' as students became involved in a '*Body in the Library*' murder mystery. Key resources used to support the development of the supporting materials for the project included the following:

- *Crime Scene Investigation: Crack the case with real-life experts.*
- *When Objects Talk: Solving a Crime with Science.*
- *Scene of the Crime: A Forensic Mystery Where You Crack the Case.*
- *Forensic Investigations: Using Science to Solve Crimes*
- *Key videos on our media sharing server.*
- BBC fully interactive murder mystery game *Who Murdered Marilyn Spencer*
<http://www.bbc.co.uk/oxford/murder/>

PROJECT DETAILS

Body in the Library scenario

A body is found in the library at the end of Period 4 on Tuesday. It is a Year 9 boy who has been murdered by a hit on the head with a blunt instrument. The body is discovered by the Head Librarian in the Fiction area. A subsequent coroner's report puts time of death at recess/Period 3 (11:00 am). The murderer is Mrs. Rudolph, a library staff member. In a fit of rage she has killed the student for not returning an overdue book. There are two other prime suspects: Mr. Smith, the Year 9 Co-ordinator, who is annoyed by the behaviour of the student, and Jack, the boy's friend, who had a fight with the victim.



Solving the Mystery

Students came to the library during scheduled class times to be involved in the *Body in the Library* murder mystery. Clues were positioned in a cordoned-off area of the library ready for the investigators. Each boy was provided with a comprehensive 'detective pack' containing a range of materials for them to examine, such as crime reports, witness statements and a coroner's report, and a forensic workbook for recording notes. Key evidence on display in the taped-off 'crime scene' include many tantalising clues, e.g., fingerprints (printed copies of finger prints taped to books!), the location of the body (taped position on the floor), and places where DNA was to be found (fake blood for evidence spots). Photographic evidence included the injury reports (fake bruising and blood on the victim), video footage of the scene of the crime (staged by students and teachers) providing clues and incriminating evidence, and videos of (staged) hard-hitting police interviews of the witnesses.

The students were able to gather more information by visiting the two Discussion Rooms (which have plasma screens for collaborative work) set up as 'evidence studios' to view the footage and interviews and to take notes as they viewed the recordings. Students also spent a lot of time carefully looking over the various points of the crime scene, comparing what they found with the notes they had already taken, and studying the evidence files that they were provided with at the beginning of the project. All this analysis led to some fierce competition to solve the crime and find the murder weapon--which was hidden amongst the library shelves. The murder weapon? A steel bookend (decorated with some fake blood).

Librarians who wish to prepare a similar scenario can find the Year 8 Forensic Science framework that set up the string of evidence at http://heyjude.files.wordpress.com/2010/08/year_8_forensic_science.pdf. The coroners' report below provides an idea of the level of detailed evidence that was provided for the students to analyse.

JOEYS POLICE DEPARTMENT FORM C-652 (CORONER'S DIV.)					AUTOPSY CASE NO. 1269351	
VICTIM'S NAME (LAST, FIRST, MIDDLE) Max William						
SEX (M) F	AGE 13y 8m	RACE Caucasian	WEIGHT 53 kg.	HT 158cm		
DESCRIPTION OF CORPSE The body is cold, unembalmed with declining rigor. There are no residual scars, markings or tattoos.					NOTES Arm contusions consistent with a person's hold. Time of death: 10:45am - 11.15am	
EXTERNAL INJURIES <ul style="list-style-type: none"> Contusions to L & R upper arms. (see notes.) Laceration (approx. 5cm x 2cm) with contusions to the superior temporal gyrus & sulcus. 						
INTERNAL INJURIES Temporal lobe haemorrhaging & cranial fractures. Numerous bone fragments from fractures have penetrated the brain tissue.						
MEDICAL DIAGNOSIS Cause of death was brain haemorrhaging due to blunt force trauma.						
INVESTIGATING OFFICER	RECORDING OFFICER	TYPED BY	DATE AND TIME	ROUTED BY		
		J.T	8/6/2010			
CORONER	FURTHER ACTION <input checked="" type="checkbox"/> YES	Ross Boyd				
	HOMICIDE <input type="checkbox"/> NO	RECEIVED BY K Boyd				

ASSESSMENT

To solve the 'murder,' students viewed a crime scene in the library; looked at photographic evidence; read various 'official' forensic and crime reports; watched CCTV evidence of the crime in action; watched interviews of the suspects; and read testimonies of different suspects. Students analyzed many forms of written and physical evidence, and then employed deductive thinking skills and metacognitive conversation to establish motives for the suspects in an attempt to determine who committed the crime. Lastly, each student was required to submit his own comprehensive *police report* on the crime and its investigation. This required identification of the perpetrator, and the validation of the decision through an analysis and reflection on the evidence that was investigated. Through this trans-literacy approach students were able to work in teams (providing differentiation) in a constructivist project-based learning activity.

Each class was provided with ample time to engage with the mystery in the library, with additional time available on request. Both class teachers and library staff were actively involved in the crime scene investigation, monitoring the students interactions and responding to research-based questions, as the library team members were seen to be active creators of and participants in the *'Body in the Library'* mystery. Science teachers were responsible for the final assessment for learning.

The work required was engaging AND challenging, and not all students were able to 'solve' the murder mystery. However, the solution was not what the assessment was about--it was the quality of details in the research and the detailed analysis included in the written report that was required to produce the report that was being assessed. Like all good 'gaming' strategies, those who learnt were not only those who reached the end, but all those who participated and were able to enhance their critical thinking and literacy skills in some way. This was the benefit of this project--the mystery surpassed the stress of chasing an A grade. In fact only 30% of the group were able to solve all aspects of the mystery correctly. Thus the challenge was able to address differentiated learning while also allowing all students of various abilities to participate in the project. Of course, the quality of their research and final solutions also depended on their level of 'scientific' learning--the project provided a motivation for making sense of the various elements of forensic science and forensic fiction.

Teachers were equally engaged, and worked collaboratively with students--being challenged themselves by the fully fledged 'crime novel' complexity. In addition, the enthusiasm and 'personal passion' of the students was captured and extended further in the project by:

- An interactive display that showcased the key aspects of the project and which allowed all students to review the interviews and media footage as part of the display
- An extensive promotion of crime fiction and forensic non-fiction resources lead to a significant increase in borrowings (to the delight of the English teachers). Though no statistics were recorded, it was noted that many students who did not have a current book on loan chose to borrow a crime book of some kind.

EVALUATION

This project achieved a multi-literacy or transliteracy approach to learning across two disciplines, in a collaborative framework. Transliteracy has been defined as the ability to read, write, and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital networks (Thomas et al, 2007). Transliteracy is an evolving and inclusive concept which bridges and connects past, present and hopefully future modalities. Transliteracy has found value amongst librarians as a way of understanding and articulating a rationale for supporting and developing their work and their services in their schools and allows school librarians to incorporate information literacy, digital literacy and reading literacy as a fluent and immersive socially-networked approach to learning across all traditional and new media (rather than being articulated as text and/or technology).

The two subject areas incorporated multiple media platforms into the core teaching of their topic, including use of digital media, online research, wikis for note-taking, tagging/social bookmarking for links, and online collaboration via chat in the school learning management system in co-operation with the library team. So while supporting English and Science in approaches to literacy, information literacy and online learning, the work in this project also allowed the library team to specifically focus on ways to empower, enthuse, and stimulate metacognitive conversations through the mystery of the game--a murder mystery right there in the library--within a transliteracy framework.

There was no negative feedback about the project from either students or teachers. In fact, students were speaking so much about the 'murder mystery' that many students in other year levels wanted to be able to take part. Many teachers from both the English and Science faculties came voluntarily to the library during one of the class times to observe and take part in the investigation. The entire school community became aware of and engaged in the project. The Headmaster stated that this was the most exciting response he had ever seen from boys working in the library on a science/literacy project, which confirmed the 'buzz' that was apparent to the library team. This cross-curriculum initiative of the school library team was highly valued by both the English and Science faculties and was noted as being the first of its kind at the school.

Better still, for the first time ALL boys were totally engaged in the learning process related to forensic science and forensic fiction. The level of motivation created by this authentic learning experience was of benefit to all aspects of the work in both subject areas.

CONCLUSION

The project was so successful that it will be run again in 2011 and beyond. This was, without a doubt, one of the most successful and interesting projects carried out by the school library team, and it also combined project-

based learning, collaboration with the library, cross-curricular programming, and information literacy embedded in learning, literacy and reading promotion.

This project could be replicated in any school and library setting. The scenario can be developed to suit the particular school community and can draw on relevant literature for English study. In addition, the study of forensic science is easily supported through the science curriculum; in some countries, forensic science is a major component of the science program in secondary schools. The innovative project was a simple idea which drew enormous enthusiasm from the students involved and, in addition, attention from students in other years. Because the school library utilised authentic settings to identify a crime scene and utilised promotional activities to engage the broader community, many students and teachers were able to catch the enthusiasm of this type of learning.

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