

Presentation Title:

A three-dimensional model of I(IT)eracy in a Year One classroom.

The context

The context for this unit of work was a Year One classroom (24 students), in a small (150 students), middle class Lutheran primary school (R-7). The school is in its sixth year of operation.

The philosophy of teaching information I(IT)eracy espoused at this school, is a shared belief that children learn best when they have authentic purposes and audiences for their work, in which they discover, construct or use knowledge. It is our belief that students learn best when their learning is focused on progression of understanding and increasingly sophisticated tasks, and when students make deep conceptual connections across the curriculum, that enhance their sense of purpose and meaning, and enable them to solve relevant problems.

Pedagogically, this belief means that ICTs are taught within a context, and not as an isolated subject. Therefore, 5 computers are located in each classroom for student use, rather than a computer suite with one computer for each student. ICTs are used in a range of contexts, and all teachers integrate new technologies into the curriculum. For example, in English multimodal texts are explored, critiqued and created. In reading students use a variety of CD-ROMs that build on and give practice in numerous reading strategies. ICTs are embedded through the curriculum where they can enhance and provide the opportunity for the students to learn and accomplish *more* than would be possible without their use.

Green's (2000) 3D model of I(IT)eracy has the appeal for our school in that it pulls together the threads of our underlying philosophies of I(IT)eracy and learning. It is both very progressive in terms of teaching and learning, and also congruent with the mindset, vision and culture of our school. The topic for this unit of work encompassed the field of new and emerging technologies, and the new literacies associated with this genre. In particular, the unit explored a three-dimensional perspective of I(IT)eracy in the classroom context.

The main focus for this unit of work was to understand a 3D view of I(IT)eracy, and as a result, facilitate change in both policy and practice, and improvement in the overall delivery of ICT's as a new form of literacy. This information was then used to assist in informing both policy and teaching practice, that is, using a 3D model for the purpose of curriculum planning and design, teaching, and the implications this approach has for primary teachers.

This presentation will describe both the process and product involved in using this particular model of I(IT)eracy to plan, teach, assess and evaluate a unit of work.

A 3D model of I(IT)eracy in a Year One Class

Aims and purposes for the unit of work:

The *teaching* of information I(IT)eracy, is currently the subject of immense discussion, not only amongst literacy educators, but politicians and the many stakeholders in children's education. This has always been the case throughout history with the emergence of new technologies. With each new technological innovation, society's concept of literacy has constantly evolved. "Today, the definition of literacy has expanded from traditional notions of reading and writing to include the ability to learn, comprehend, and interact with technology in a meaningful way". (Pianfetti, 2001:256) This has become especially prevalent with the reconceptualised view of I(IT)eracy; coined 'multiliteracies', brought to the fore by the New London Group (2000). They argue that what students need to learn is changing. They are proponents of moving away from the pedagogies of a single, formal standard of language to acknowledging that in the digital information era, meaning is made in ways that are increasingly multimodal.

The aim of this unit of work was to explore multimodal texts with children, where they were viewing and interacting with multimodal texts, and also creating, composing, critiquing and designing them. This aim meant a broad-based shift from the printed page to the screen as the new space of representation. The purpose of using the 3D model was to provide a structure to the unit in which the children could learn and work in an authentic context and could be immersed in a multiliteracies approach in meaningful ways. This particular focus was chosen as it most closely aligns with the school's common understanding of sociocultural and critical perspectives in the teaching of I(IT)eracy. The particular literacy challenge for this unit of work involved the *introduction and integration of Green's 3D model of I(IT)eracy into classroom practice.*

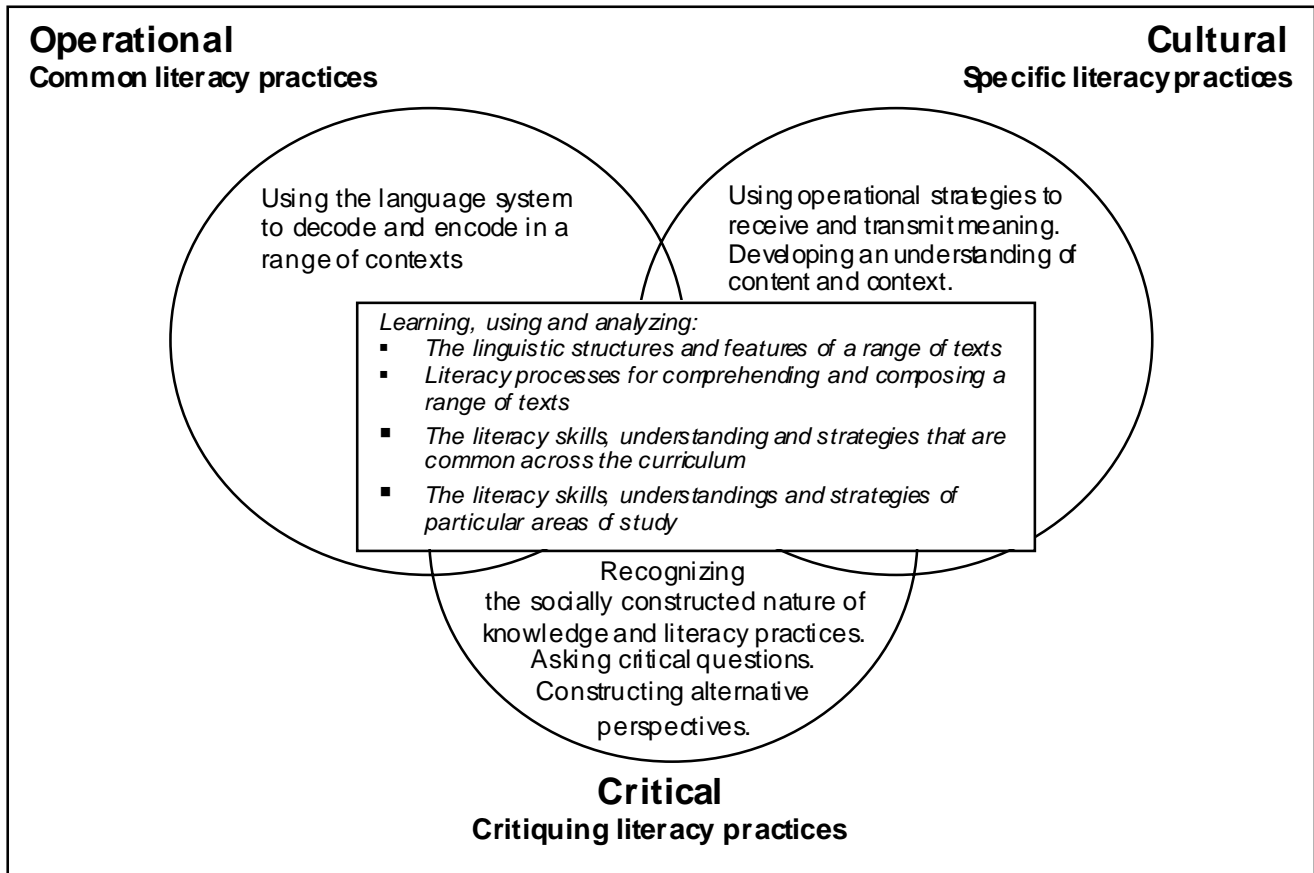
Related policy, curriculum, research related to the unit of work:

In order for students to be information I(IT)erate and active users of new technologies, they must be able to access and make meaning in ways that are increasingly multimodal. This means re-thinking how to access, manipulate and respond to information. Traditional-type pedagogies need to be transformed to allow children to work and learn in multimodal ways. Cope and Kalantzis (2000) claim that a multiliteracy approach supplements traditional literacy pedagogy (language), with modes of representation much broader than language alone. They assert that these new literacies are best used wherever they are able to make a contribution to the quality of the student's learning. In this approach, there are six design elements in the meaning-making process: "those of linguistic meaning, visual meaning, audio meaning, gestural meaning, spatial meaning". (7)

This unit of work was based on the 3D model of I(IT)eracy established by Bill Green. His work is claimed to be one of the strongest and most promising developments in literacy and technology learning in recent times. The work of Green provides a new approach to teaching I(IT)eracy. This model is a "situated social practice model of language, literacy and technology learning – that is an emphasis on situated, 'authentic' learning and cultural apprenticeship, within a critical-sociocultural view of discourse and practice". (Durrant and Green: 97) A pictorial representation of the model is detailed below.

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The Three Dimensions of Literacy and Technology – a diagram



(Taken from DECS (1996), 'Literacy and Statements and Profiles: An Introduction to Addressing Literacy in Areas of Study: a training and development resource')

With this approach, a reconceptualised understanding of literacy is necessary, that which is "a broad-based shift from print to digital electronics as the organizing context for literate-textual practice and for learning and teaching". (Durrant and Green, 89). This reconceptualised view of I(IT)eracy places equal emphasis on technical, socio-cultural and critical perspectives, and therefore brings together language, technology and learning. This approach equally emphasizes "learning technology, learning *through* technology, and learning *about* technology". (Durrant and Green, 98) It is argued that this gives students the best opportunity to construct their knowledge and understanding in meaningful ways, within a framework that provides purposeful learning in authentic contexts. This approach brings together three different aspects of learning and practice and turns them into one model of learning in the area of literacy involving technology. All three elements of this model must be addressed simultaneously. Luke and Elkins (1998:4) support this mode of working by stating "it is increasingly more important to equip our students with a vision of the future of literacy, a picture of the texts and discourses skills and knowledges that they might need, and their associated social and educational visions, rather than simple mastery of particular skills and methods".

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Implications for policy, pedagogy and teaching: I(IT)eracy in 3D

The '3D' view of literacy-technology learning is one framework that allows learners to manage new literacies and learn in multimodal ways. This model brings together three dimensions or aspects of learning and practice: the *operational*, the *cultural* and the *critical*. This approach emphasizes an integrated view of literate practice and literacy pedagogy by bringing together the 'how to' knowledge (technical competence or 'functional literacy'), and complementing and supplementing this by contextualising it, with regard for matters of culture, history and power. This means that the teaching of 'skills' and 'techniques' happen within an authentic context of situated social practice. This model has been developed in relation to computer learning, IT and education.

"In a sociocultural approach, the focus of learning and education is not children, nor schools, but human lives viewed as trajectories through multiple social practices in various social institutions. If learning is to be efficacious, then what a child or an adult does now as a learner must be connected in meaningful and motivating ways with 'mature' (insider) versions of related social practices". (Gee, Hull & Lankshear, 1996:4)

Our school acknowledges that in an age of burgeoning new technologies, our students must be prepared for a society where there are new and different literacies, in which print is just one of a range of resources available to them. This unit of work employed some of these resources.

Planning and Teaching the unit of work:

Deconstructing Texts

In order for students to construct texts, it is important that they first deconstruct them to see how they are made. Students initially studied authors of a range of text types, and identified the authors' motivation to write. With print-based texts, the children were familiar with such a task. With the Internet, the students were introduced (in an operational sense) to navigating a website to try to find this information. The websites were set up on an internal intranet and were based around the theme of 'dinosaurs' (the cultural). Various tasks were set-up for the students to use their existing and new 'operational' skills to navigate the various dinosaur texts in search of the author (cultural dimension), and their purpose for writing. When they completed this they wrote reflectively on what they had done (operational), the processes they used, what they found out (cultural) and what they liked/disliked, and how easy/hard it was to find the author and information about the author (critical dimension).

To enable the students to further develop their skills with critical literacy, websites were developed that included accurate and incorrect information about dinosaurs, as well as websites that heavily advertised with obvious brand recognition. The questions were 'who produced this text? What other work does this person do? Why does the company want to produce this kind of text? How will the company make money to pay the writer? What does the writer want us to do or know as a result of reading this text?' The students were astonished that anybody could put something on the Internet and that it might not be true.

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As students were beginning to develop their understanding of the messages texts give us, it was decided to deconstruct other texts to see how they work, what they contain inside them, as well as the credibility of the contents. Part of the eBook the students were constructing contained a non-fiction element. It was therefore important that the students developed their understanding of the linguistic structures and features associated with this particular text type.

Critiquing Texts

Students critiqued texts for the purpose of observing the features that they liked/disliked and aspects of the text that they found helpful or useful in some way to construct meaning. The students viewed and critiqued multimodal texts, non-fiction and fiction texts in order to elicit the most beneficial of these features for the eBook they would construct.

Within the operational and cultural dimension students were asked to view a variety of dinosaur texts over several lessons. They were asked to decode and encode these texts with regard to their linguistic structures and features, as well as to demonstrate an understanding of the content of the text and the context of the text (cultural dimension). Using the critical dimension, students were asked to analyse the visual information that was presented in these texts. They were asked to identify the kinds of visual images that were presented (ie. photos, diagrams, illustrations), and to give their opinion of this choice. The students were asked to consider what the images tell them about dinosaurs and what the text leaves out. They were also asked to consider whether the particular text they were viewing was a good dinosaur text, and to reflect on what they believe makes a good dinosaur text.

Constructing texts

Having deconstructed and critiqued texts for the purpose of identifying linguistic structures and features, and critically analysing content including visual images, the students worked towards creating their own eBook. They would need to draw on the knowledge and skills they had gained through deconstructing texts to construct a text that represented dinosaurs in ways that made sense to them, and to their audience.

The students worked in multimedia teams to achieve this task (a simulation of the world of work). The operational skills varied from writing and editing text, to illustrating it on paper, choosing images electronically, typing and narrating the text into a microphone. The students used these skills in the context of producing an eBook about dinosaurs (cultural dimension), that is, they were using their operational skills to receive and transmit meaning. Within the critical dimension, they were asked to reflect on what they liked/disliked about their task, what they would try differently tomorrow and to reflect on decisions that were made that they did not agree with.

The multimedia production teams consisted of authors, illustrators, editors, graphic designers, data entry and sound effects. Each team rotated jobs each week in order to have input into every element of making multimedia.

Assessment

The *process* of constructing the eBook was the focus of assessment in this unit of work.

The outcomes students were assessed against were to:

- Name some of the structures and features of a range of written and visual texts
- Identify the purpose and audience of a range of text types
- View and critically review the messages, both written, aural and visual in a range of texts
- Work in teams to plan, design and construct an eBook for an identified purpose and audience

In order to assess these outcomes, I collected:

Student artifacts (work samples, photos). The students' work in each of these teams was collected for assessment.

Student conferencing, discussion and questioning. Using checklists, I observed and questioned students throughout the course of the teaching and learning that took place during this unit of work. Anecdotal comments were made using the checklists.

Self-assessment/evaluation: Each day the students wrote reflectively about their experiences of working in teams, and producing an eBook.

Evaluating texts

After work was completed on the eBook, the students were asked to evaluate the text in terms of the operational, cultural and critical. They were asked how the text works (operational), what kind of a text it is (cultural), why it is a good text about dinosaurs, and what it doesn't tell the reader about dinosaurs (critical).

Conclusions:

This unit of work has shown that when students are provided with an environment and activities that facilitate thinking in all three dimensions of the 3D model, they are able to comprehend, compose, learn and make meaning using these interacting dimensions. The use of this model has given me a new framework to base my literacy practice. The 3D model has enormous potential to assist children in developing the ability to think beyond the operational and cultural levels that they are most familiar with in the school setting.

* *Unit plans are available upon request: email – traceyd@senet.com.au*

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