

DOCUMENT RESUME

ED 442 111

CS 217 159

AUTHOR Beavis, Catherine
TITLE Literacy, English, and Computer Games.
PUB DATE 1999-07-07
NOTE 12p.; Paper presented at the Biennial Conference of the International Federation for the Teaching of English (University of Warwick, England, UK, July 7-10, 1999).
PUB TYPE Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Classroom Environment; *Computer Games; *Computer Literacy; *Computer Uses in Education; Elementary Secondary Education; *English Curriculum; Reading Achievement; Sex Differences; *Student Participation
IDENTIFIERS *Technology Integration; Text Adaptation

ABSTRACT

A study examined the incorporation of computer games into English classrooms, seeking to explore computer games as text, players' engagement with them, literacies needed, and the interchangeability of traditional and newer technology. Subjects were students enrolled in a coeducational private middle school or a state secondary school, and used two particular computer games that teachers had integrated into English instruction. Results indicated that: (1) digital literacy and the English curriculum can coexist; (2) classroom dynamics were high; (3) logistic difficulties arose; (4) boys were involved most, but in some cases girls were involved equally; and (5) students improved their reading achievement. Findings suggest that the reconstruction of the English classroom needs to proceed in ways that enfranchise all students and that are hospitable to high aspirations. (Contains 41 references.) (EF)

Literacy, English, and Computer Games.

by Catherine Beavis

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

C. Beavis

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CS 217 159



Literacy, English and Computer Games

Paper presented at
The Power Of Language
International Federation for the Teaching of English
Seventh Conference
Wednesday 7- Saturday 10 July, 1999
University of Warwick
Coventry, UK

Catherine Beavis cathxx@deakin.edu.au
Deakin Centre for Education and Change
Deakin University
221 Burwood Highway
Burwood 3125
Victoria
Australia

Literacy, English and Computer Games

Catherine Beavis

The image of literacy that most of us now have will be obsolete before today's new readers and writers have finished primary school (Lemke 1993:13)

It is by now a truism to note that the advent of the new technologies has far reaching implications for literacy. Amongst the changes brought about by global communication and technology are redefinitions of what literacy might entail, and of what it means to be literate in society. As Lo Bianco and Freebody note, in their discussion of the 1997 Australian National Schools English Literacy Survey (Masters and Forster 1997) 'extraordinary changes are impacting on literacy practices, changes which derive from global economic, social, cultural and technological transformation (Lo Bianco and Freebody 1997: xvi).

Calls for schools to address the challenge of the new technologies, and the changing nature of Literacy, are part of a broader movement to rethink the nature of schooling, including individual subjects, in a climate Stewart Hall (1996) refers to as 'New Times'. In these New Times, as Hall and others argue, the pace of change is so rapid and far reaching as to be unprecedented, where old assumptions about literacy, curriculum, culture and education, as much else, need to be rethought.

The insistence that English change to address the changing nature of literacy in the context of the new technologies (Tweddle et al 1997, Sefton Green 1998, Nixon 1998, Snyder 1997, Green 1999 et al.) occurs within a larger context calling for the subject to be reconstituted and renewed - a broad concern to reshape the subject to reflect the nature of contemporary literacy, text, culture and community; to address young people's 'real world' literacy practices and needs (Buckingham and Sefton Green 1994, Buckingham 1998, Christie 1991, Andrews 1993, Kress 1995, Morgan 1993 et al.). In Australia, concerns with the 'boys and literacy agenda' have also prompted calls for change to both the subject and to classroom practices (Martino 1995, Alloway and Gilbert 1997, Gilbert and Gilbert 1998), as have perspectives arising out of critical literacy (Morgan et al 1996, Comber and Kamler 1997, Lankshear 199X) and literary theory (Mellor Patterson and O'Neil 1992, Corcoran, Hayhoe and Praedl 1994, Gilbert 1987 et al.). The recent expansion of the English curriculum and definitions of literacy to embrace the visual needs to be extended further, to incorporate and reflect the multimedia/digital world.

Common to all these calls for change is a view of English as a space where students can be actively engaged in both making and analysis and critique; where students' knowledge and experiences are valued and form the basis of movements into new knowledge and understandings. They imply a view of language as social practice, where language is seen as having real effects in the world, in shaping truths and assumptions about oneself and others, in modelling and creating relationships of power, and in challenging or confirming dominant understandings and ways of organisation in society. They also affirm the central role of texts and of the English curriculum in helping young people develop their own understandings of themselves and the world, to become more aware of the many influences working to shape and position them, as well as gaining wider insights into textual workings of all kinds.

Working with texts and identity is centrally our territory in the English classroom, and we urgently need to find ways to talk about and work with the texts and literacies of young people's own contemporary worlds. In many respects, our brief to do so is there already. Definitions of texts and their study in official curriculum documents such as the National Statement on English for Australian Schools (Curriculum Corporation 1993) of the Curriculum and Standards Profile of the Australian state of Victoria (Board of Studies 1994) legitimate and embrace the study of the texts of the new technologies as part of a spectrum incorporating 'literary, mass media and everyday texts'.

The aims outlined for the reading and study of texts stress a sustained exploration of the ways meaning is constructed in text, analysis and reflection, enjoyment and critique. In Victoria, curriculum goals for text study in English include the development of

- a broad knowledge of a range of texts and a capacity to relate this to aspects of contemporary society and personal experience.
- the capacity to discuss and analyse texts and language critically
- a knowledge of the ways textual interpretation and understanding may vary according to cultural, social, and personal differences, and the capacity to develop reasoned arguments about interpretation and meaning (Board of Studies 1994:9)

To treat digital and other contemporary texts within such parameters, and utilising those laid down traditionally for more 'literary' works, allows such texts, their pleasures and ideologies to be explored with seriousness and respect - a far cry from studying popular culture merely to deride.

Computer games, as texts of the new technologies are a large part of many students' cultural worlds, and vivid examples of the ways in which the new technologies are challenging more traditional concepts of text, narrative and literacy. The most exciting and creative of the new linguistic and cultural forms to arise within the orbit of the new technologies, computer games challenge and extend current notions of what texts are, and of what young people's engagement with them, as players or 'readers' might entail (Beavis 1997). They provide entertaining and pertinent instances of what a conception of literacy that includes visual and other non verbal elements might entail - what Kress (1995) and the 'New London Group' (1995) describe as 'design'.

The study of computer games exemplifies the priorities argued for by Lankshear, Bigum et al. in the 1997 Digital Rhetorics report, where in teaching in, about and through the new learning technologies, where technology should be thought of as both context and resource (Green 1999) Literacy teaching here as elsewhere engages interlocking dimensions of the operational, the cultural, and the critical (Lankshear et al. 1997).

How might we work with computer games as part of the literacy curriculum? I suggest we approach computer games much as we do other texts, particularly those to which they seem most closely related, novel and film. As part of the spectrum of texts we examine, we can explore elements in the construction of the texts from aesthetics and structural patternings through to the values they imply, and the subject position they seem to ask of their readers. We can discuss with students the appeal of the texts, what they take the dominant values or ideologies to be, how they position themselves in relation to the main characters, particular issues raised by the game, and so on.

Computer games repay close study as emergent cultural forms. Structurally, through careful analysis and close reading, a great deal could be gained from considering what the nature of this new form might be. Computer games seem to be developing new structures of narrative within different parameters, intertextually drawing on film, graphic design, myth, imagery and iconography and so on from a wide range of sources. Like most popular culture, they are intensely 'intertextual' in their references, utilising and reshaping for their own purposes older stories and references, symbols and associations. In their amalgamation of design and visual elements with more traditional, verbally organised narratives, they are a prime example of the ways in which literacy itself is changing, constantly mixing genres and modes.

Questions might be asked also about the kinds of engagement they promote. Are these texts different from other forms in the ways they ask the reader to become involved, and the sort of distancing they allow? How does the position of the player/viewer/reader at the keyboard or joystick alter or confirm more traditional forms of engagement and critique between the reader and the main protagonist? What is the effect on the player of being addressed as you? What's the

relationship, if you like, between the first, second and third person kinds of involvement here?

A game like *Tomb Raider II* provides a good introduction to exploring ways in which the text does and does not resemble narratives in print and filmic forms. Questions I've asked of teachers in Australia after showing them the opening sequences of the game direct their attention to the nature of its appeal, the ways it draws on and reshapes traditional myths, narratives and other cultural forms, at how reading this text expands traditional notions of literacy, the contribution of 'nonliterary' stylistic elements and so on.

For much of this year I have been involved in a pilot project working with two schools incorporating the study of computer games into their English classroom. The research has been concerned to explore further the nature of computer games as text and of readers/players' engagement with them, the sorts of literacies required to play computer games and the literacies taught by them, and at whether skills and knowledge taught through computer games can be used to support more mainstream literacies. We looked also at ways to build bridges between computer games and texts and literacies of more traditionally valued kinds. A related focus of the research has been on teachers' changing construction of what literacy might mean.

The first school is a coeducational private school with an established laptop program and a strong online environment. In this school I worked with three teachers and their year 8 English classes - students in their second year of high school, aged around 12-13. The study of computer games has been integrated into their study of Le Guin's fantasy novel, *A Wizard of Earthsea*. In its combination of the quest and fantasy genre, and its incorporation of very Jungian themes the novel has become something of a classic. As a quest and fantasy novel, the book has links and similarities to other texts located within these genres, both very prominent in much popular culture, including computer games.

Prior to beginning work with computer games, the teachers had already integrated their study of the novel into the school's digital orientation.

Once study of the novel was under way, the teachers presented students with a cluster of related games - two adaptations of a dungeons and dragons type card game - *Magic Cards* - (*Magic the Gathering* and *Spells of the Ancients*), *Heroes of Might and Magic 2* - all three fantasy games using similar generic elements and themes, a mystery quest game, *Beyond Time*, and *Prince of Persia 1*, an old game, but one with interesting similarities to the novel. For groups of four to six students, games were loaded onto laptops linked to monitors at work stations around the room. The teachers' idea was to treat the games as analogous to books for wide reading, so that each group, across two sessions, was required to play two different games.

The game playing itself generated a great deal of literacy activity - both in playing and talking about the game, and in the print and visual literacy and knowledge they entailed. Frequently this entailed reading from the print manual, taking notes in the form of copying down messages and clues, and working cooperatively to give directions to whoever was at the keyboard and interpreting the significance of actions and images as the game progressed. Students were asked to prepare a review of their game, after searching out other reviews (from print and on-line sources), and to look for connections with *A Wizard of Earthsea*. They were given notes about

similarities they might look for in the games, as well as examples of reviews, so that this review and electronic work was framed both by the provision of models and the expectation of critical analysis. The task required students to both read and produce a variety of textual forms and electronic or IT literacy skills - in its layout demands, the requirement of a graphic and the online submission of the work - the task itself is a fine example of literacy constructed as design. Reviews were emailed for comment back to their teacher, and to me.

Both teachers were insistent that the students have substantial experience of first hand playing of the game, just as close and detailed engagement with wide reading novels would be required. In addition to the game playing done in class one of the teachers asked his students to prepare reviews of their games to present through data projection to the class, in addition to looking up reviews on the net and preparing a 'written' electronic response of the kind more formally required. Their final work on the book for the term was to turn *A Wizard of Earthsea* into a computer game - the novel lending itself to this particularly well. One teacher designed a working brief for his students, using class time and their ideas to further develop game types and possibilities under 'notes'.

As with their reviews, this work was to be presented electronically to the class. The detailed planning for this task showed close attention to many aspects of computer games (eg maps in the top corner of the lands, stages, puzzles, clues, companions, allocation of enemies or wizards to separate lands, rules for progress, acquisition of wealth or wisdom and so on.)

The second school was a state secondary school, where, with students aged around 16 (year 10) the teacher and I worked on using the computer game, *Abe's Exoddus* as a class text. There were a number of reasons why we chose this game. One was the complex and evocative story line and images - this is a game that is richly intertextual, and one that is conceived of as part of a series of Five - reminiscent of the *Star Wars* vision as that of other Science Fiction and Fantasy series. It seems analogous in this vein. Another reason for our choice was the hero, Abe, and his manifestly unheroic qualities - something brought up by a number of students in class. A third, related to the first, was the quality of the graphics, while a fourth was the sophisticated, worldly humour which also has an appealing slapstick and homely quality. I hoped that these dimensions would provide a focus for close textual analysis of the role of many elements in constructing players' experience of Abe's world.

Work on the game was a mixture of whole class discussion and viewing of initial movie clips, small group playing and discussion of the game, related issues work, the viewing of a video, and the preparation of a text response, to be handed in next term.

This work with teachers and computer games is only just being completed now (June 1999), with students finishing their activities at the end of term. This means it is too early to provide considered analysis of the results. It is possible, however, on the basis of the data we have so far, to report impressionistic findings at this stage.

- Digital literacy and English curriculum.

The units were seen as fitting readily into existing English curriculum and priorities, providing

opportunities to integrate print and electronic literacies and texts, or to study electronic texts in their own right. The units provided opportunities to be both critical and creative, and to utilise 'both' literacy forms. All four teachers were very positive about expanding definitions of text and literacy to incorporate electronic forms.

- Classroom dynamics

The units generated high levels of enthusiasm, and provided for ongoing collaboration in a constructive atmosphere. There was a high level of interest for most students, although frustrations arose in relation to particular games. Students in the non laptop school had less access to the technology, and hence tended to be less involved.

- Logistic difficulties

There were logistic difficulties in both schools, though in neither instance were these insurmountable. In the non laptop school this required running the game through a data projector, and running split lessons so that all students who wished could play the game. Presenting student work through data projection at the laptop school also required the manipulation of extra technical equipment which had to be brought in, set up and trialed. In both schools copyright issues needed to be carefully negotiated.

- Involvement of boys

For most classes, teachers commented on the higher levels of interest, involvement and collaboration from less strong, less attentive or less school-oriented boys. Some boys produced their 'best work' for the year so far. The teacher in the non laptop school commented that students usually less involved in English work became more involved, but that conversely, some of those who were usually participated more actively had less to say.

- Involvement of girls

This varied. At the lap top school in one class girls were equally involved and interested with the boys, in other two not. At the non-lap top school, with a higher population of males, some girls responded enthusiastically but others continued to make it plain that computer games were not for them.

- Literacy achievement

For the most part, students produced thoughtful and high quality work, impressive both in the quality of its creativity and analysis and in its proficiency in both electronic and print forms. The tasks at the laptop school required students to build on digital literacy abilities (eg search the net for a review, incorporate columns and graphics into their own review) as well as utilising more traditional word based forms. Discussion at the non-laptop school showed a sophisticated understanding from many students of aspects of the structure and marketing of games, and of debates about media effects. It resulted in a more considered preparedness to see games as texts and constructed, inviting a consideration of such issues as ideology and player positioning, as

well as inter and intratextual elements such as wit, narrative and iconography.

There is much to be gained by the incorporation of computer games in English, but to do so is to enter troublesome territory. Computer games are complex and engaging texts, but they are neither culturally neutral nor benign. They are violent, ideological, oppositional and powerfully persuasive. They are heavily resourced and marketed, as part of a youth culture with far reaching multinational resources and influence. They are part of a world that is both fascinating and far removed from school, but a world young people will increasingly be called upon to occupy - a future Luke describes as a 'media- text- and symbol- saturated environment' in which 'for the unemployed, underemployed and employed alike, a great deal of service and information work, consumption and leisure [will] depend on their capacities to construct, control and manipulate texts and symbols' (Luke 1996:3).

As always, in working with texts, teaching involves both engagement and critique, close textual analysis and a consideration of issues of ideology and reader/player positioning and subjectivity. The reconstruction of the English classroom to incorporate the changing nature of literacy, to connect more closely between young people's in and out of school textual worlds, and to refocus work with literature, text and response, needs to proceed in ways that enfranchise all students, and are hospitable to the best we have achieved and aspire to, for both girls and boys. To work with what might be perceived as boys' texts and boys' literacies risks disempowering girls in the one area where we seem to have got it right. To enter into the world of the new technologies buys into pressing issues of equity, access and social justice. To engage with computer games, as other popular texts, means plunging in to the commercialised, mass media, military- entertainment complex (Wark 1996), into troubling issues of gendered and national identity (Nixon 1998, Beavis 1998) and into that fine balance in response where both pleasure and resistance or critique might be simultaneously entertained.

Working with popular and electronic texts, offers powerful resources and strategies to equip young people to become more critical users of the literacies of the new technologies, to gain greater control of more conventional forms of literacies, and to see more purpose and relevance to their own lives in their everyday school worlds. More than this, they invite serious exploration and analysis in their own right, as part of English's long standing concern with shaping of text, with narrative, with meaning, with construction, representation and identity. Changing English to incorporate the texts and literacies of the new technologies is one arm of a rich and diverse set of frameworks within which we strive to make schooling more appropriate, more relevant, more challenging and more effective for all the young people in our care.

References

Alloway, N., & Gilbert, P. (1997). Everything is dangerous: Working with the 'boys and literacy' agenda. English in Australia, 119-120(35-45).

Andrews, R. (1993). The Future of English: Reclaiming the Territory. English in Australia, 106(December), 41-54.

Beavis, C. (1998). Pressing (the right?) buttons: literacy and technology: crisis and continuity. English in Australia, 123(November), 42-51.

Beavis, C. (1997). Computer games, culture and curriculum. In I. Snyder (Ed.), Page to Screen: Taking literacy into the electronic era Sydney: Allan and Unwin.

Board of Studies Studies, (1994). Curriculum and Standards Framework: English. Carlton: Victorian Board of Studies.

Brüderbund Software, (1989, 1992) Prince of Persia Novato

Buckingham, D. (Ed.). (1998). Teaching Popular Culture: Beyond Radical Pedagogy. London: UCL Press.

Buckingham, D., & Sefton Green, J. (1994). Cultural Studies Goes to School. Basingstoke: Falmer.

Christie, F. et al. (1991). Teaching English Literacy: a Project of National Significance on the Preservice Preparation of Teachers for Teaching English Literacy. Canberra: DEET.

Comber, B., & Kamler, B. (1997). Critical Literacies: Politicising the Classroom. Interpretations, 30(1), 30-53.

Corcoran, B., Hayhoe, M., & Pradl, G. (1994). Knowledge in the Making: Challenging the Text in the Classroom. Portsmouth NH: Boynton/Cook Heinemann.

Curriculum Corporation (1993). A Statement on English for Australian Schools. Carlton: Curriculum Corporation.

Dream Catcher Interactive Inc. (1997) Beyond Time

Eidos Interactive Limited (1997) Tomb Raider 2

Gilbert, R., & Gilbert, P. (1998). Masculinity goes to School. St Leonards: Allen and Unwin.

Gilbert, P. (1987). Post Reader-Response: The Deconstructive Critique. In B. Corcoran & E. Evans (Eds.), Readers, Texts, Teachers (pp. 234-250). Upper Montclair: Boynton Cook.

Green, B. (1999). The New Literacy Challenge. Literacy Learning: Secondary Thoughts, 7(1), 36-46.

GT Interactive Software (1998) Oddworld: Abe's Exoddus

Hall, S. (1996). The meaning of New Times. In D. Morley & K.-H. Chen (Eds.), Stuart Hall: Critical Dialogues in Cultural Studies (pp. 223-237). London and New York: Routledge.

Kress, G. (1995). Writing The Future. London: National Association for the Teaching of English.

Lankshear, C., Bigum, C., Durrant, C., Green, B., Honan, E., Morgan, W., Murray, J., Snyder, I., & Wild, M. (1997). Digital Rhetorics: Literacies and Technologies in Education - Current Practices and Future Directions Department of Employment, Education, Training and Youth Affairs.

Lankshear, C. (199) Changing Literacy

Le Guin, U. (1968). A Wizard of Earthsea. Harmondsworth: Puffin.

Lemke, J. L. (1993). Critical social literacy in the new century. English in Australia, 105(September), 9-15.

Lemke, J. (1996). Metamedia literacy: Transforming meanings and media. in Reinking, D. (Ed.), Literacy for the 21st Century: Technological Transformation in a Post-typographic World Erlbaum.

Lo Bianco, J., & Freebody, P. (1997). Australia's Literacies: Informing National Policy on Literacy Education. Canberra: Language Australia.

Luke, A. (1996). Text and Discourse in Education: An Introduction to Critical Discourse Analysis. In M. Apple (Ed.), Review of Research in Education 1995-6 (pp. 3-48). Washington DC: American Educational Research Association.

Martino, W. (1995) Boys and Literacy: Exploring the Construction of Hegemonic Masculinities and the Formation of Literate Capacities for Boys in the English classroom English in Australia, 113, 11-24

Masters, G., & Forster, M. (1997). Mapping Literacy Achievement: Results of the 1996 National Schools English Literacy Survey Department of Employment, Education, Training and Youth Affairs.

Mellor, B., O'Neill, M., & Patterson, A. (1992). Rereading Literature Teaching. In J. Thompson (Ed.), Reconstructing Literature Teaching: New Essays on the Teaching of Literature Norwood: Australian Association for the Teaching of English.

Morgan, R. (1993). Transitions from English to Cultural Studies. New Education, 15(1), 21 - 48.

Morgan, W., with, Gilbert, P., Lankshear, C., Werba, S., & Williams, L. (1996). Critical Literacy: Readings and Resources. Norwood: Australian Association for the Teaching of English.

New London Group, (1995). A Pedagogy of Multiliteracies: Designing Social Futures. Harvard Educational Review, 66(1), 60-92.

New World Computing 1996/The 3DO Company Heroes of Might and Magic 2 Hollywood

Nixon, H. (1998). Fun and Games are Serious Business. In J. Sefton-Green (Ed.), Digital Diversions: Youth Culture in the Age of Multimedia London: UCL Press.

Sefton-Green, J. (Ed.). (1998). Digital Diversions: Youth Culture in the Age of Multimedia. London: UCL Press.

Snyder, I. (Ed.). (1997). From Page to Screen: Taking Literacy into the Electronic Era. Sydney: Allan and Unwin.

Tweddle, S., Adams, A., Clarke, S., Scrimshaw, P., & Walton, S. (1997). English for Tomorrow. Buckingham: Open University Press.

Wark, M. (1996). In the Shadow of the Military-Entertainment Complex. Continuum, 9(1), 98-127.

Wizards of the Coast Inc/Microprose Software Inc. (1996) Magic the Gathering

Wizards of the Coast Inc/Microprose Software Inc. (1997) Magic the Gathering: Spells of the Ancients



U.S. Department of Education
Office of Educational Research and
Improvement (OERI)
National Library of Education (NLE)

Educational Resources Information
Center (ERIC)

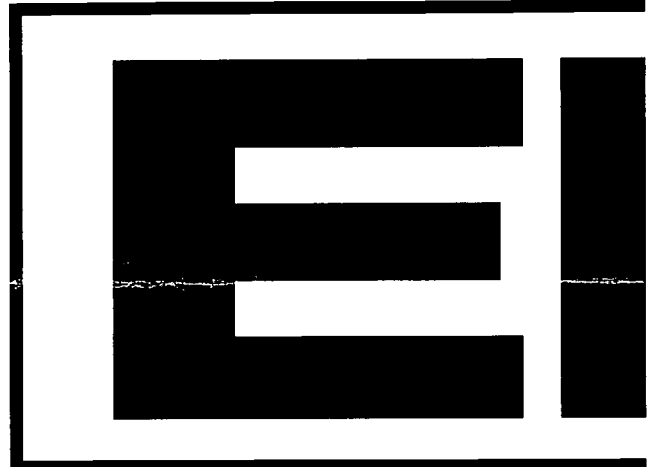
CS 217 159

Reproduction Release

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: <u>LITERACY, ENGLISH AND COMPUTER GAMES</u>	
Author(s): <u>CATHERINE BEAVIS</u>	
Corporate Source: <u>International Federation for the</u>	Publ



II. REPRODUCTION RELEASE: Teaching of English

In order to disseminate as widely as possible timely and significant materials of interest documents announced in the monthly abstract journal of the ERIC system, Resources in available to users in microfiche, reproduced paper copy, and electronic media, and sold th Reproduction Service (EDRS). Credit is given to the source of each document, and, if re the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please Ch options and sign in the indicated space following.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to documents	
Level 1	Level 2A	Level 2B
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g. electronic) and paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only
Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.		

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature: <u>Catherine Beavis</u>	Printed Name/Position/Title: <u>DR CATHERINE BEAVIS</u>		
Organization/Address: <u>DEAKIN UNIVERSITY</u>	Telephone: <u>461392446420</u>	Fax: <u>61392446752</u>	
<u>231 BURWOOD HIGHWAY</u>	E-mail Address: <u>cathxx@deakin.edu.au</u>	Date: <u>16-6-2000</u>	
<u>BURWOOD 3125 AUSTRALIA</u>	<u>Edn.au</u>		

E-mail Address:
cathxx@deakin.edu.au

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)



Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC/REC Clearinghouse
2805 E 10th St Suite 140
Bloomington, IN 47408-2698
Telephone: 812-855-5847
Toll Free: 800-759-4723
FAX: 812-856-5512
e-mail: ericcs@indiana.edu
WWW: http://www.indiana.edu/~eric_rec/

EFF-088 (Rev. 9/97)