WRITING, DIGITAL CULTURE AND ENGLISH CURRICULUM

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Abstract. In their out-of-school lives, young people are immersed in rich and complex digital worlds, characterised by image and multimodality. Computer games in particular present young people with specific narrative genres and textual forms: contexts in which meaning is constructed interactively and drawing explicitly on a wide range of design elements including sound, image, gesture, symbol, colour and so on. As English curriculum seeks to address the changing nature of literacy, challenges are raised, particularly with respect to the ways in which multimodal texts might be incorporated alongside print based forms of literacy. Questions focus both on the ways in which such texts might be created, studied and assessed, and on the implications of the introduction of such texts for print based literacies. This paper explores intersections between writing and computer games within the English classroom, from a number of junior secondary examples. In particular it considers tensions that arise when young people use writing to recreate or respond to multimodal forms. It explores ways in which writing is stretched and challenged by enterprises such as these, ways in which students utilise and adapt print based modes to represent multimodal forms of narrative, and how teachers and curriculum might respond. Consideration is given to the challenges posed to teaching and assessment by bringing writing to bear as the medium of analysis of, and response to, multimodal texts.
Keywords: Computer Games, Digital Culture, Digital Literacy, English Curriculum, Multimodal Writing.

Chinese
[Translated by Shek Kam Tse]
摘要：很多青年人的校外生活，都會花時間在豐富而複雜的電子世界，充斥著影像和多媒體的元素。特定的敘事體裁及文字形式的電腦遊戲特別能吸引年青人：遊戲背景的含義是通過玩者與遊戲互動建構而成，利用多種的設計元素來清晰表達出來：音效、影像、姿態、符號、色彩等。爲了能配合讀寫能力本質的轉變，英語課程需要面對著新的挑戰，尤其是多媒體的材料可能會和紙上的印刷品一起出現。本文所討論的問題，集中在這些多媒體文本的製作方法，學生如何學習，還有如何評估，本文還有闡釋，多媒體文本的引入對紙上印刷。

Dutch
Samenvatting [Translated by Tanja Janssen]
In hun buitenschoolse leven gaan jongeren op in rijke en complexe digitale werelden, gekarakteriseerd door beelden en multimodaliteit. Computergames in het bijzonder bieden jongeren specifieke verhaalgenres en tekstvormen: contexten waarin betekenis interactief geconstrueerd wordt en waarin een reeks ont-

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werpelementen wordt gebruikt, zoals geluid, beeld, gebaar, symbool, kleur enzovoorts. Voor het Engelse curriculum dat wil aansluiten bij veranderingen in de aard van geletterdheid, vormen multimodale teksten een uitdaging, in het bijzonder manieren waarop deze in het curriculum geïncorporeerd kunnen worden. Vragen hebben zowel betrekking op de manier waarop zulke teksten gemaakt, bestudeerd en beoordeeld zouden kunnen worden, als op de implicaties van de introductie van zulke teksten op gedrukte teksten. In deze bijdrage wordt ingegaan op mogelijke verbindingen tussen schrijven en computergames in het onderwijs Engels, aan de hand van enkele voorbeelden uit de eerste fase van het secundair onderwijs. In het bijzonder wordt ingegaan op de spanningen die ontstaan wanneer jongeren schrijven gebruiken om op multimodale vormen te reageren of deze te herscheppen. Besproken wordt hoe schrijven wordt verbreed en ter discussie wordt gesteld, hoe leerlingen gedrukte teksten gebruiken en aanpassen om multimodale verhaalvormen te representeren, en hoe leerkrachten en het curriculum hiermee om kunnen gaan. Aandacht wordt gegeven aan de uitdagingen voor het onderwijs wanneer schrijven gebruikt wordt als analyse-instrument of vorm van respons op multimodale teksten.

French

Résumé [Translated by Laurence Pasa]
Dans leurs vies extrascolaires, les jeunes sont immergés dans des mondes numériques riches et complexes, caractérisés par l'image et la multimodalité. Les jeux informatiques en particulier proposent aux jeunes des genres narratifs et des formes textuelles spécifiques : les contextes dans lesquels la signification est construite interactivement et illustrée explicitement exploitent un large éventail de procédés de conception comprenant le son, le graphisme, le geste, le symbole, la couleur, etc. Alors que les programmes anglais tentent de faire face à la nature changeante de la littéracie, des défis apparaissent, en particulier autour des manières d'inclure les textes multimodaux aux côtés des écrits imprimés. Les interrogations portent à la fois sur la façon dont ces textes pourraient être créés, étudiés et évalués, et sur les effets de l'introduction de tels textes pour les pratiques de littéracie basées sur l'écrit imprimé. Cet article explore les croisements entre l'écriture et les jeux informatiques en cours d'anglais, à partir de cas de jeunes lycéens. Il examine en particulier les tensions qui surgissent quand les jeunes emploient l'écriture pour recréer ou répondre à des formes multimodales. On étudie ici les manières dont l'écriture est déployée et défiée par des tentatives de ce type, les manières dont les jeunes utilisent et adaptent des pratiques scripturales classiques pour représenter des formes multimodales de récit, et comment les professeurs et le programme pourraient réagir. L'accent est mis sur les défis posés à l'enseignement et à l'évaluation en considérant l'écriture comme un moyen d'analyse, et de réponse, aux textes multimodaux.

Mots-clés : Jeux informatiques, Culture numérique, Littéracie numérique, Programme d'Anglais, Écriture multimodale.

German

Zusammenfassung [Translated by Irene Pieper]
Außerhalb der Schule bewegen sich Jugendliche und junge Erwachsene in komplexen, reichhaltigen digitalen Welten, die durch Bilder und Multimodalität gekennzeichnet sind. Insbesondere Computerspiele bieten spezifische narrative Genres und textuelle Formen an: Kontexte, in denen Bedeutung interaktiv konstruiert wird und die eine breite Palette von Design-Elementen wie Klang, Bild, Gestik, Symbol und Farbe aufweisen. Insofern das Englisch-Curriculum darauf abzielt, die Veränderungsdynamik im Bereich der Literalität zu berücksichtigen, wachsen die Anforderungen, besonders in Bezug auf die Art und Weise, in der multimodale Texte – neben traditionellen Schrifttexten – einbezogen werden können. Fragen gelten sowohl der Kreation, Untersuchung und Beurteilung solcher Texte als auch den Implikationen der Einführung solcher Texte in print-basierte Schriftlichkeit. Der Beitrag erkundet Beziehungen zwischen Schreiben und Computerspielen an einer Reihe von Beispielen aus dem Englischunterricht der Junior Secondary. Er setzt sich insbesondere mit Spannungen auseinander, die entstehen, wenn Jugendliche das Schreiben zur Neuschöpfung von oder als Antwort auf multimodale Texte nutzen. Er untersucht, wie das Schreiben durch solche Formen herausgefordert wird: Wege, in denen Schüler und Schülerinnen print-basierte Modi nutzen und anpassen, um multimodale Formen der Narration zu entwickeln, und mögliche Antworten in Lehre und Curriculum. Berücksichtigung finden auch die Herausforderungen für Unterricht und Bewertung, die entstehen, wenn das Schreiben als Medium der Analyse von und Antwort auf multimodale Texte eingesetzt wird.

Greek
Metafrase [Translated by Panatoya Papoulia Tzelepi]
Στην εξωσχολική τους ζωή οι νέοι περιβάλλονται από σύνθετους και πλούσιους ψηφιακούς κόσμους που χαρακτηρίζονται από εικόνα και πολυτροπικότητα. Τα παιχνίδια με τον υπολογιστή, ιδιαίτερα, παρουσιάζουν στους νέους ειδικά αφηγηματικά είδη και κειμενικούς τύπους, αντικείμενα εις τα οποία το νόημα κατασκευάζεται διαδραστικά και με την εμφανή βοήθεια που παρέχουν πλήθος στοιχείων του σχεδιασμού τους, όπως ήχος, εικόνα, χειρονομία, σύμβολα, χρώμα και τα τοιαύτα. Καθώς το αναλυτικό πρόγραμμα για την διδασκαλία της Αγγλικής προσπαθεί να αντιμετωπίσει την αλλαγή της φύσης του γραμματισμού, αντιμετωπίζονται προκλήσεις, ιδιαίτερα σε ό,τι αφορά τους τρόπους με τους οποίους πολυτροπικά κείμενα θα μπορούσαν να συμπεριληφθούν στο γραμματισμό του έντυπου κειμένου. Τα ερωτήματα επικεντρώνονται στον τρόπο που αυτά τα κείμενα θα μπορούσαν να δημιουργηθούν και αφετέρου στις επιπτώσεις της εισαγωγής τους στον γραμματισμό του έντυπου λόγου. Το άρθρο αυτό διερευνά «συναντήσεις» του γραψίματος και των παιγνιδιών με υπολογιστή στην τάξη των αγγλικών μέσα από ένα αριθμό παραδειγμάτων στο Γυμνάσιο. Ιδιαίτερα μελετά τις εντάσεις που δημιουργούνται όταν οι νέοι χρησιμοποιούν το γράψιμο για να αναδημιουργήσουν ή να ανταποκριθούν σε πολυτροπικούς τύπους. Διερευνά τρόπους με τους οποίους η παραγωγή γραπτού αντιμετωπίζει προκλήσεις σε περίπτωση όπως αυτές. Τρόπους με τους οποίους οι μαθητές καλούνται να προσαρμόζουν τύπους του έντυπου γραμματισμού για να αναπαραστήσουν πολυτροπικούς αφηγηματικούς τύπους, και πώς οι δάσκαλοι και το αναλυτικό πρόγραμμα θα μπορούσε να ανταποκριθεί. Ο προβληματισμός προχωρεί στις προκλήσεις για τη διδασκαλία και την αξιολόγηση όταν το γράψιμο χρησιμοποιείται ως μέσος ανάλυσης και ανταπόκρισης σε πολυτροπικά κείμενα.

Polish
Streszczenie Translated by Elzbiéta Awramiuk]
W swym pozaszkolnym życiu młodzi ludzie są zanurzeni w bogatych i złożonych cyfrowych światach, charakteryzujących się obrazowością i multimodalnością. Szczególnie gry komputerowe oferują młodym ludziom specyficzne gatunki narracyjne i tekstowe formy: konteksty, w których znaczenie realizowane jest interaktywnie, przy wykorzystaniu całej gamy projektowanych elementów, takich jak dźwięk, obraz, gest, symbol, kolor itp. Choć program nauczania języka angielskiego dąży do uwzględnienia zmieniającej się natury umiejętności czytania i pisania, nie odpowiada on na wszystkie pytania. Problemem pozostaje zwłaszcza to, w jaki sposób można do niego włączyć (obok tradycyjnych tekstów drukowanych) teksty multimodalne. Pytania koncentrują się na sposobie, w jaki te teksty mogą być tworzone, wykorzystywane i oceniane, oraz na konsekwencjach wprowadzenia takich tekstów do opartego na druku nauczania umiejętności czytania i pisania. Niniejszy artykuł omawia punkt przecięcia między pisaniem a grami komputerowymi na szeregu przykładowych lekcji języka angielskiego w gimnazjum. W szczególności rozważamy napięcia, które powstają, kiedy młodzi ludzie używają pisania, aby odtwarzać multimedialne formy lub reagować na nie. Zgłębiamy sposoby rozwijania i zmieniania pisania przez inicjatywy takie jak te, sposoby wykorzystywania i adaptowania przez uczniów modeli opartych na druku do reprezentowania multimodalnych form narracji, zastanawiamy się, jak nauczyciele i program mogą na to zareagować. Rozważania odnoszą się także do zmian w nauczaniu i ocenianiu wywołanych traktowaniem pisania jako medium analizy multimodalnych tekstów i odpowiedzi na nie.
Słowa-klucze: gry komputerowe, kultura cyfrowa, cyfrowa piśmienność, program nauczania języka angielskiego, multimodalne pisanie

Portuguese
Resumo [Translated by Paulo Feytor Pinto]
Nas suas vidas fora da escola, os jovens estão imersos em mundos digitais ricos e complexos, caracterizados pela imagem e a multimodalidade. Os jogos de computador, em particular, põem os jovens diante de géneros narrativos e de formas textuais específicas, contextos em que o significado é construído interactivamente e resulta de um leque alargado de elementos como, por exemplo, o som, a imagem, gestos, símbolos, cor. Uma vez que o currículo de Inglês procura adequar-se às mudanças na natureza da literacia, colocam-se desafios, em particular no que diz respeito aos modos como textos multimodais podem ser trabalhados em conjunto com formas literácicas baseadas no documento impresso. O cerne da questão parece ser, por um lado, como criar, estudar e avaliar esses textos e, por outro, em que medida a introdução desses textos afecta as literacias baseadas no texto impresso. Este artigo explora as intersecções entre a escrita e os jogos de computador na aula de Inglês a partir de exemplos numa série de escolas básicas e secundárias. Considera, em particular, as tensões resultantes do uso da escrita, pelos jovens,

para recriar ou reagir a formas multimodais, analisa as formas como a escrita é desafiada por estas iniciativas, como os estudantes utilizam e adaptam modos próprios do texto impresso para representarem formas narrativas multimodais e como os professores e o currículo deveriam reagir. São ainda considerados os desafios que se colocam ao ensino e à avaliação pelo facto de a escrita ser o suporte da análise e da interacção com textos multimodais.
Palavras-chave: jogos de computador, cultura digital, literacia digital, currículo de inglês, escrita multimodal.

1. WRITING, COMPUTER GAMES AND ENGLISH CURRICULUM

The recognition that literacy is becoming increasingly multimodal, and that the kinds of texts and literacies young people encounter in their out of school lives have implications for understandings and expectations about the ways meaning is made, is now widespread (e.g. Sefton-Green, 1998; New London Group, 2000; Buckingham, 2000, Kress, 2003, Lankshear, Leu, Coiro & Knobel, 2007). So too is the view that school literacy and English curriculum needs to incorporate the study of multimodal forms alongside more traditional print and oral literacies. Definitions of literacy as 'the flexible and sustainable mastery of a repertoire of practices with the texts of traditional and new communications technologies via spoken language, print, and multimedia' (Luke, Freebody, Land & Booth, 2000: 20) shape curriculum documents in Australia and elsewhere, and imply the integration of multimodal and ICT-based texts and literacies within mainstream curriculum. Questions about how this might be done and what it means, however, remain complex. This paper addresses such matters with particular reference to writing and assessment; how writing is stretched when called upon to accommodate representations of multimodal texts to the limitations of writing's capacity to do so, but also with reference to how we might understand and assess students' writing when it is informed by their experience and expectations of out-of-school texts such as computer games.

The now widespread incorporation of visual texts such as film, television and picture books into the curriculum, is a reflection of English teachers' awareness of the multimodal nature of young people's textual worlds. Accordingly, in many schools in Australia, the UK and North America, visual and popular culture texts have become the focus of the sorts of analysis, reflection, celebration and critique that have traditionally been part of the English curriculum. In Australia, the expansion within the English curriculum of *reading* to include 'viewing' has opened up possibilities for exploring the ways in which meaning is constructed within multimodal texts, and has seen a developing repertoire of approaches, largely drawn from film and media studies, furnishing teachers with vocabularies and frameworks for discussion. This has meant that while much remains to be done to address the specifics of digital texts and how they might be described, conceptions of reading/viewing, and the ways they are taken up in the classroom, have been relatively hospitable to attempts to reconceptualize text study to address ICT-based texts alongside more familiar multimodal forms.

It is much harder to imagine how *writing* might be reconceived within subject English in manageable ways. Traditionally, reading/viewing (or 'reception') in the English classroom is balanced by writing/making (or 'production)'. As media educators argue, students need to be able to call upon a repertoire of multimodal resources

and opportunities if they are to learn about and demonstrate understandings of such texts, and to create their own (Buckingham, 2003; Burn, 2003; Sefton-Green, 2004). However, the move to incorporate a greater range of visual and other resources for creating, analysing and assessing texts still raises questions about how to conceive of, teach, and respond to writing in the 'changed communicational landscape' (Kress, 2000) of the present day. This is particularly the case where teachers are called upon to respond to student texts that draw on conventions generated by more multimodal forms and attempt to approximate them in a written form. Educators need to find ways to work with writing that respond to the more complex semiotic forms of engagement and meaning making occurring in many out-of-school forums for our students where writing is but one of many modes.

As Kress (2006) argues, writing itself is powerfully affected by the digital age – texts are becoming 'intensely multimodal'; 'screens are replacing the book as the dominant media'; and 'social structures and social relations are undergoing fundamental change'. These changes in turn have implications for structures of authority and gender formations within writing, and transformed constellations of mode and medium. When changes such as these are coupled with writing's nonetheless ongoing role as a central and privileged form within the community as the core of conventionally defined literacy, and as the primary assessment tool in high stakes examinations, difficult questions arise. Amongst other things, these concern the adequacy of writing to meet the task of *representing* and *responding to* multimodal texts (in this instance computer games), and whether expectations about writing itself, including new genres and forms of writing, need to be recast. In particular, questions about what writing does best, and what is valued in writing, are raised in new ways in contexts such as these.

Popular culture and media texts such as film and television programs are commonly taught within subject English in Australian secondary schools. Multimedia texts and literacies are included in English/literacy curriculum guidelines in each state, in some states from school entry, and in other states from the middle primary years. (In Australia, curriculum is set separately by each state, with shared agreement over core principles at a national level (Ministerial Council for Education, Training and Youth Affairs, 1999; Australian Education Systems Officials Committee, 2005). Senior secondary curriculum documents refer variously to electronic, multimodal and multimedia texts. However, as a recent review of what was common in the content and assessment of final year English courses notes, 'because of practical constraints… it becomes more difficult to use and create such texts under commonly applied conditions' (Matters & Masters, 2007: 110). As a consequence, the incorporation of multimedia texts into curriculum at both secondary level and earlier is held back because of assessment issues and practical limitations. The same report also noted some disagreement among reviewers concerning the importance of multimedia and electronic texts, suggesting 'this may be because there is as yet little consensus on the definition of the terms 'multimedia texts' and 'electronic texts' and/or because 'respondents recognised the practical difficulties of assessing understanding and ability to produce multimedia texts' (Matters & Masters, 2007: 110). Yet, as Vincent and others argue, 'the lack of a multimodal assessment scheme can-

not be allowed to prevent multimodal literacies from being a part of the literacy curriculum. We need to develop a better curriculum program' (Vincent, 2006: 56).

While only a small number of schools in Australia set computer games for study in the English/literacy classroom, those that do so provide glimpses of the ways in which these potential obstacles might be addressed. This paper explores issues raised for English teachers and teaching by the juxtaposition of writing and computer games. The paper draws on two bodies of data. It takes first the example of a small Australian research project[1]. This classroom study which involved junior secondary students and three commercially available computer games (Beavis & Charles, 2005a, 2005b) explored the tensions and questions that arise when written language is used as a vehicle for analysing and responding to digital texts. This is followed by a discussion of three incidental pieces of writing produced on separate occasions in the course of more conventional English lessons, also at junior secondary level. Collectively, the examples foreground a number of issues about teaching and assessing writing in curriculum that seeks also to address multimodal literacy forms.

2. DIGITAL CULTURE AND COMPUTER GAMES

Insights into the kinds of texts and literacies generated by interactions with ICT are arguably most readily visible and available in popular digital culture such as computer games. With respect to literacy, computer games are archetypal exemplars of the ways in which ICTs are changing forms of text and narrative. These texts immerse players in complex multimodal worlds, are often highly social, and have built into them structures that allow players to enter into complex universes of meaning, or what Gee (2003) calls 'networked semiotic domains'. Gee argues that this occurs through the incorporation of learning principles that, amongst other things, place the learner at the centre, and reward trial, error and persistence; and that these become increasingly challenging as mastery is gained. Within digital texts like games, meaning making systems are multimodal, with 'meaning and knowledge built up through various modalities (images, texts, symbols, interactions, abstract design, sound etc) not just words' (Gee, 2003: 210). In their social dimensions, computer games often reflect a different kind of textual engagement than that which tends to characterise print and other visual texts young people meet in schools and elsewhere, in that they are interactive and change in response to players' input, and are frequently collaborative, so that more than one player is involved in the production of specific texts or games. This means that in addition to the multimodal ways in which meaning is created in games, and the ways in which players need to attend to multiple sign systems simultaneously, games often rely on distributed knowledge as teams or individuals play cooperatively or competitively, with the enacted details changing as they progress.

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[1] *Girls and Games: quality learning, literacy, gender and digital culture online. (Beavis 2004). Funded by a grant from the Deakin University Quality Learning Research Priority Area.*

Further, computer game playing blurs the boundaries between 'reading' and 'writing' as players in some respect create the text as they play, so that the social dimension goes beyond belonging to a community of players to being co-constructors of the game as it is played. While this does not necessarily mean that such practices and experiences will or should replace the study of other print and visual texts in English curriculum, it does suggest that educators can learn more about the changing nature of literacy and of young people's textual experiences and expectations of text through studying their interactions with popular culture in out-of-school contexts. Educators can also learn more about the way meaning is created by players from multiple elements within digital forms. And by bringing such texts into the classroom as part of the spectrum of texts studied, teachers can provide opportunities for young people to focus in a more explicit way on the ways meaning is constructed in digital texts, on how values and ideologies are established there, and so learn more about how students might extend their analytic skills.

3. DATA SET 1: COMPUTER GAMES IN THE CLASSROOM: AGE OF WONDERS, *THE SIMS* AND *AGE OF MYTHOLOGIES* WITH YEAR 8

A number of studies are beginning to investigate the ways in which digital culture texts such as computer games might be brought into the English classroom, and what happens to traditional constructions of literacy and curriculum when this occurs (e.g. Beavis, 2002; Burn, 2004; Pelletier, 2005; Bearne & Wolstencroft, 2006). The writing discussed in this section of the paper arose out of a small research project investigating the gendered dimensions of games play, the characteristics of successful girl gamers in their orientations to ICT, and the ways in which traditional notions of text and English might be challenged and reconceptualized by the introduction of computer games to the English classroom. This paper focuses on those elements of the project dealing with English and writing, and the challenges posed to teaching and assessment by bringing writing to bear as the medium of analysis of, and response to, multimodal texts like these.

The school-based aspect of the study took place in a coeducational independent school in the southern suburbs of Melbourne, and took the form of a two-week curriculum unit designed around computer games. Following initial discussions, the research team (Catherine Beavis and Claire Charles) and the classroom teacher met regularly to plan a two week unit to be taught to one class of Year 8 students (age 13-14) at the end of the school term. A student teacher expert in computer games provided technical assistance as required. Technical staff at the school loaded sets of games bought specifically for the curriculum unit onto the pod of laptops kept in the classroom for student use, and provided back up assistance as required. As explained to the students:

> The aim of these classes is to look at computer games the way you might look at a novel or a film. We will be asking you to get to know your game, play it a bit, and do some talking and writing about the world of the game, your ideas about its values, and to look at some sections very closely to see how the different aspects of the game (like images, sound and colour for example) are working together to make the game work.

Classroom activities included a period of time playing the games in pairs (with some students knowing the games and some not), detailed discussion of specific games, writing a creative piece based on one of the games, and isolating small sections for analysis and presentation to the rest of the class. The unit was taught by the classroom teacher, with the researchers and student teacher present throughout. The research team observed, took notes and interviewed students as they played and worked in pairs. Writing produced by the students was collected for analysis by the research team. Data included student writing, together with transcripts of interviews conducted both with the students at various points during the unit and after its conclusion, and with the classroom teacher. Student presentations were videotaped, with audio tracks also recording class members' reactions and responses.

The three games around which the computer games in English unit were developed were *The Age of Wonders*, *The Age of Mythology* and *The Sims*. The games were chosen because they represented a range of genres, and, as such, differed in terms of the narrative, intertextual and formal conventions they employed, the way 'play' was conceived in each instance, the kinds of textual worlds created and alluded to in the games, and the practices required for 'successful' play. They were also chosen to conform to the expectation that texts introduced to students within the school curriculum are 'age appropriate', despite the fact that those students who played games at home or with friends are likely to be playing games aimed at an older group of adults and teenagers. *The Age of Wonders* is a role-playing game requiring the player to undertake quests. *The Age of Mythology* is a strategy game that requires the player to create and maintain armies, villages, and food supplies whilst simultaneously battling invaders. *The Sims*, as suggested by its name, is a game that supposedly simulates American suburban life. The player is required to create characters, develop families and build houses, careers and lifestyles. While immensely popular, like its successor *Sims 2*, *The Sims* is not a game in the usual sense of the word, but more a games space within which people can play. Its popularity with both boys and girls made it a good choice for the unit. The literacy practices required of players in all games involved attention to multi-modal cues, and having to concentrate on multiple tasks and sets of information simultaneously.

As with most English curriculum units, writing played an important role in structuring student activity and response. Early on in the unit students were asked to produce a sustained piece of imaginative writing in the spirit of 'creative response'. The intention was that this task would provide the opportunity for students to imaginatively enter and critically evaluate the values and worlds constructed in the texts, paying specific attention to the multi-modal ways of creating meaning in computer games. They included a short creative response that required students to reproduce critical features of the chosen game in an imaginative expansion of it. An imaginative recreation or 'creative response' was chosen to allow students to attend to pleasurable or immersive elements of the game and to reproduce some of the qualities that characterised the original. A dilemma faced here, as with other tasks, was how to talk about multimedia texts and analysis in terms that would be familiar within English curriculum. The task needed to be clear to the students, but the very framing of that activity was already compromised by the terminology available to describe it. The language needed to make sense to students, the teacher and the re-

search team, and at the same time point outside and beyond the constraints of familiar forms to investigate and imagine texts that were interactive and digital.

The students were provided with two options for the writing task. The choices were to design an 'expansion pack' or a tutorial for their chosen game, and it was anticipated that these choices would result in a range of genres. Within the computer games industry, expansion packs build on the original game, modifying and extending it without introducing the level of change in scope and concept that would require a 'sequel' to the game. The other option was to write their piece as a tutorial. This second option invited them to imagine an opening clip or tutorial - that is, a short piece of multimodal narrative or instruction that would mimic the operation of the game. In setting this task, the aim was to create a match of sorts between the kinds of texts students were studying and the kinds of texts they produced, and to foreground the multimodal and interactive elements, while still setting something that resembled other 'creative response/dependent authorship' forms of writing familiar from more print-based literary contexts. Students were given guidelines about things to include in the writing (scenario, characters, introductory movie clip; typical features of games, extra features and so on). They could write their expansion packs as 'an outline for the company marketing division (in which case you will be describing it to them) or as a tutorial (in which case you will be explaining to a new player what to do and why)'.

3.1 Expansion packs: Imaginative extensions of the games

Within the limits imposed by the written form, students Andrew, Natalie and Nick all took up the invitation in their writing to cross boundaries between the features and modalities of computer games and those afforded by conventional print representation and narrative. A characteristic of 'creative response' or dependent authorship as a form of response to literary texts is the need to catch and reproduce aspects of the original. All three pieces capture a number of characteristic features of the game, but in very different ways. They also foreground and critique aspects of both context and ideology, and reflect each player's experiences and preferences in relation to game play. They make an interesting comparison.

Andrew's expansion pack is notable for the ways it replicates and critiques the structure and ideology of *The Sims*, but also starts to shift genre through introducing parameters that focus his game more narrowly than the original, providing scope for narrative drive. Whereas in *The Sims* players can create any number of characters, Andrew has built in the requirement that play revolves around just one (a 'male or female person aged 18-30'), with other characters populating the game in a secondary role. This, and his shift from 'they' to 'you' to refer to this character, shows him reshaping the typical structure of the game away from the creation and manipulation of multiple characters, as is typical of this genre, to constructing a focalising figure who effectively becomes the player's avatar, bringing the game closer both to print narratives and to other genres of game, such as role playing games.

The Sims – New York

The Sims New York will be about one male or female person aged 18-30. You can design this person and will be given $20,000 to use. They have to eat, learn and live. Eventually you would need to get a job, but to do so you would need to read or do weights to apply for a job. You could also steal money, but you might go to jail. Any job is open to you, as long as you work and before you apply for it. Be careful who you are friends with, they could turn on you. If you talk to someone you can select from a variety of things to say to them, depending on who they are. The main characters in this are you, your boss or employees, your 'friends', your neighbours, and anyone you might bump into in the street.
The main objectives of this game would be to be the head of a business, have a wife and friends, and own one million dollars.

Figure 1: Andrew's expansion pack: 'The Sims – New York'.

While it is not uncommon for players of *The Sims* to recreate themselves and their friends and families in the game, and set them in motion, for Andrew, the creation of a specific fantasy character around which a drama can be built goes one step further. Mirroring this pronoun shift to refer to one's game character is a shift in the ways the reader of Andrew's piece is imagined – initially as someone engaged in game design (in the God role), but rapidly moving to become the player engaging in the game through the avatar. Other measures that turn *The Sims New York* into a more narrative genre include potential threats (false friends), challenges (how to 'get a job'), and 'objectives' ('to be the head of a business, have a wife and friends, and own one million dollars'). In alluding to start-up money, what the avatar must learn - the need for a job, the choice of who to speak to and what to say, and the pursuit of happiness (in the form of status, money, a wife and friends) – *The Sims New York* recognisably takes up structural features of the original. However, the darker side of life in this version of the game, in particular untrustworthy friends, arguably shows Andrew critiquing aspects of the somewhat toxic ideology of the game in its emphasis on success, materiality and external display.

Where Andrew's expansion pack uses familiar discursive forms to push *The Sims* towards a role play genre or adventure, Natalie focuses on the functionality and characteristics of the elements required to build and play. That is, where Andrew effectively creates a scenario and story line, and relies on writing to convey the nuances and subtleties of his game, Natalie concentrates on the elements provided and what the characters can do. Her attention is more squarely on the interactive, operational and multimodal aspects of the game. As she comments in her explanation – an innovation of her own design – her changes are designed to make *The Sims* 'more real'. Her innovations explicitly refer to the visual, verbal and spatial options provided. Her changes are about creating greater diversity, and they rely on the capacity for alternative options built into the game – more faces, more hair, more clothes, more facilities. These choices are complemented in turn by more sites for play, more

places to socialise with friends, and more means of transport, adding up perhaps to a closer approximation of social life as it is experienced, in her world. In this respect, her expansion pack is closer to the original than is Andrew's, in that it reflects the 'making' imperative of the game. Where Andrew wants to shift the game to become more like other narratives, Natalie wants to shift the game so that it more fully satisfies claims made about it replicating reality. If she has a criticism of the game, implicitly it is that it does not live up to its promise to be 'real'.

Sims Expansion Pack
'Reality'

- more modern furniture
- more clothes
- your characters can go next door
- more hair and faces
- kids can grow 2 adults (optional)
- more facilities
- U can travel to space
- Drive to a city
- Go shopping
- Go to school, be able to invite friends
- Ask friends to go out, eg cinema, mall etc
- Be able to do job
- Give people your number
- Type in what you wanna say or choose an option
- Buses, trains etc
- Hot air balloons
- Lottery

Why I chose this -
I chose this because it makes The Sims more real. At the moment it's still really limited so I want it to be more real.

Figure 2: Natalie's expansion pack – 'Reality'.

The contrast between the texts produced by Andrew and Natalie highlights one of the paradoxes entailed in using writing in relation to teaching about and responding to multimodality. In Andrew's writing there is a strong connecting thread - linking together the problematic nature of getting/earning a job, knowing who to trust and so on - that both relies on and benefits from the kinds of distinctions and connections writing affords. He pays less attention to (multimodal) individual features constituting what characters look like and can do. Natalie's piece, by contrast, initially looks disappointing, just a list. However, the items within the list, seen in the context of the game she is referring to, collectively present an extremely rich and detailed pic-

ture to 'the company marketing division' of the way the game will look and play, even while creating a picture that in writing is rendered two dimensional, thin and flat.

Nick's piece (see Figure 3) combines many of the features of both Andrew's and Natalie's accounts. As with Andrew's piece, writing allows him to explain in subtle and complex detail the kinds of changes he wants and why.

The Sims - Deluxo Schmuxo

Additional features

- instead of talking gibberish they actually speak English. So you can know a bit more about what the characters want.
- there are a bit more character costumes and bodies for when you are creating families
- instead of The Sims leaving the house to go to work and not showing them working, you can help them at work and go to their office and stuff
- you can now live on other planets and work under the rule of aliens and you have to learn alien customs, but it is very expensive to get a rocket trip so you have to get a good job.
- there are highways between the Planets and if you get fired you have to become a drifter and build yourself up again
- there are also little interactive games to keep the Players interested eg casino's, driving, Plane Piloting

other info

- it doesn't need a tutorial because it has little Popups about new bits in the game and the rest is in the same format of the old game.
- you need a previous version of the game so you can load this version onto it

I think that we needed to spend a lot more time on the computer games. We could not fully explore the world of the game and so we were a bit confused.

I think that there should be natural disasters in the game and you can get taken to different city's by tornadoes.

you should also be able to go the amusement Parks around the world. You should also be able to build them.

Figure 3: Nick's expansion pack: 'The Sims Deluxo-Schmuxo'

Nick establishes an easy relationship with his reader as he moves from one point to another, drawing on his knowledge of this and other games. Like Natalie, he identifies specific multimodal features of the game (e.g. talking gibberish, more costumes and bodies) that he wants to develop and change. The level of detail he attends to includes not only the need for greater variety in the options for characters' appearances, sites and scenarios, and new and improved functionality, but he builds in instructions about features of the technical articulation of this version with the older

game. In this, and in the ways he incorporates features drawn from other games and other genres of computer games (casinos, driving, plane piloting, building amusement parks and so on), his extended familiarity with the world of games provides the piece with a strong and convincing sense of authority and complexity.

3.2 Tutorial

Lincoln and Tim, working on *Age of Mythology*, took the second option: to create a tutorial showing players how to play. To do so, they present the opening clip, an animated sequence indicating the context and main players in the game.

Age of Mythology
Opening Clip

- *2 armys are stationed on a plain (somewhere), 1 hero from each side are on the front line. At the back of the armies there is a range of Mythological creatures*
- *1 side charges, while their infantry runs towards them, the opposing army shoots some of them down with arrows*
- *The 2 armies clash – (flash forward to the end when there is only 2 units, a metator (minotaur) and a normal human)*
- *The two have a fight and after a while of fearsome fighting the human jumps up and with a quick flick of his wrist chops off the monsters head*

~~~~~~

[Then it starts to load the game]

~~~~~~

Scenario
The scenario for my expansion pack is relatively the same except you are more close to the action (by Zooming the screen in).

Figure 4: Lincoln and Tim's tutorial: 'Age of Mythology Opening Clip'.

While Lincoln and Tim are working within the constraints or parameters of written language, they are nonetheless able to identify and evoke multimedia scenarios vividly and effectively. This brief piece provides a glimpse in writing of the different, visual logic of computer games, and what Darley (2000) describes as a shift from narrative to spectacle as characteristic of entertainment in the late twentieth (and now early twenty-first) century - a shift epitomised in theme park rides (e.g. *Pirates of the Caribbean*), special effects films (e.g. *The Mummy*), and computer games. Lincoln and Tim's piece is notable for the ways in which its structure and features replicate those of the animated sequences starting the game. It progresses through a highly visual succession of tableaux, flashing forward in time but essentially set in a timeless present. It establishes the scene and the combatants, juxtaposing massed forces in ways familiar not just from other games, but also from films like *Lord of the Rings.* Such films draw on the very set of images and possibilities that epitomise one aspect of what computer games do so successfully - the kind of remaking of one

media form into another that Bolter and Grusin (2000) call remediation. In their re-making, the boys' piece carries traces not just of other computer games within this and related genres, but also textual references from elsewhere, for example in the high-flown language ('stationed on a plain', 'the two armies clash', 'fearsome fighting', 'a quick flick of his wrist'). The poetic evocations of such terms seem to build on textual experiences elsewhere in more literary print and mythological worlds. The boy's experience with literary verbal texts provides an important resource for their capacity to imagine and evoke the qualities of the game world. Similarly, the effectiveness of the intertextual dimensions of the game depends at least in part on cultural knowledge held outside it, by these boys, as by other players and the games makers.

Lincoln's and Tim's piece, like Daniel's that follows, suggests the need for a 'both/and' approach to traditional 'literary' literacies and digital forms of literacy within English curriculum. Both pieces are written by students clearly at ease and familiar with both computer games and literary texts. What is notable about these pieces, in part, is the ways in which the boys work with written language to make it represent nonverbal forms and experience, a familiar feature of poetic language and literature. The writing in both instances 'works' because the writers know how to use it to achieve these ends, but also perhaps because writing makes these kinds of distinctions and evocations possible.

4. DATA SET 2: WRITING FROM THE CONVENTIONAL ENGLISH CLASSROOM

It's not just in curriculum units explicitly devoted to the study of popular culture that students' writing is shaped by their immersion in computer games. The three pieces that follow were each produced as part of 'normal' English work. Those by Daniel and Rhys were handed in to student teachers during their teaching rounds, in response to the (fairly open) writing tasks they set. Knowing of my interest in computer games, the student teachers passed them on to me, their lecturer, as examples of the pervasiveness of games, and the energy and enthusiasm they felt the writing displayed. The third piece, from Ben, developed over a longer period of time. Geoff, Ben's teacher, was an experienced English teacher who, at the time he was teaching Ben, was doing a Masters degree. On Geoff's invitation, I was able to visit his school and meet Ben and his mother, and hear more about how he created this piece, and what it meant to him. Ben brought in giant scrapbooks that he'd kept in primary school, which contained story after story in the Nintendo mould written in his own time out of school. The great paradox was that, at both primary and secondary school, most teachers regarded Ben as a non-writer because of his struggle with school writing, poor spelling, handwriting and self-esteem. Between them, these three pieces foreground further issues and possibilities raised for writing by young people's fascination with the world of computer games, across a range of genres.

4.1 Medieval fantasy – online role play games: Diablo 3

Daniel's story was handed up in response to a task set by a trainee English teacher, during his teaching practicum, who asked students to write a sustained imaginative narrative. The title, *Diablo 3*, ties the story immediately to a popular role-play game, *Diablo 2* (itself a sequel) that at the time was at the forefront of games design in the richness of its graphics and textual density. The four lines with which Daniel's piece opens are taken directly from the opening film clip, a voice-over linking visuals and music that show in epic scale the oppressed and oppressive world of the game and the desperation of the individual who becomes the unwilling hero of the game.

Diablo 3

I saw him again….
He haunts my dreams.
A dark shadow who haunts my dreams.
He comes for me at night, appearing in the mist in the forest just outside the village.

'Hobo, Hobo' I jumped out of bed to find my mother calling my name from just outside my hut. 'Well it's about time you woke up! You start patrol in ten minuets so you'd better hurry up,' my mother said. 'Sheesh, ten minuets' I replied. I chucked on my leather armour, picked up my sword and shield and laced up my boots and ran to the perimiter of the castle to start patrol.

I meet up with Rhett, a superior knight who even owned his own horse. He was very high in class. We always patrolled together, it was a daily routing. Rhett had been promoted knight ever since he led us into battle against the great king Mephisto. But now we are fighting a bigger war against Diablo. Diablo has no allies and no warriors. He just raises the dead from their graves. He is a great but evil warrior.

'Hey Rhett, what are our orders today?' I asked…

Figure 5: Daniel's narrative: 'Diablo 3'

The very length of the piece – his story continues for a further two and a half pages beyond this extract – suggests the degree to which games provide writers like Daniel with an inspiring and satisfying world. The writing succeeds well in recreating the atmosphere and tension of the game; like Tim's and Lincoln's scenario it draws on literary language to achieve a sense of magnitude and high seriousness. Daniel's story follows more conventional narrative forms than does Tim's and Lincoln's *Age of Mythologies* scenario but, like theirs, his story is strongly visual.

Kress describes the shift of meaning from being organized on a page to being organised on a screen as a shift between 'the world told to the world shown' (Kress, 2003), a difference between 'syntax' and 'display'. Daniel's piece, like Lincoln's and Tim's, seem to exemplify just this change:

> The screen is organised and dominated by the image and its logic. The logic of (alphabetic) writing is the logic of time and sequence: the logic of image on the other hand is the logic of space and simultaneity. The logic of writing, leaning heavily on the temporal logic of speech… is temporal and sequential; the elements of writing unfold in time and are related by sequence. By contrast, the elements of the image are present in spatial arrangements and they are ordered by spatial relations (Kress, 2003: 140).

Taken together, these two pieces suggest something of what such contrasts might mean. Where Tim and Lincoln offer the reader a sequence of tableaux, Daniel takes his reader through a classical narrative orientation, introducing key characters, building in dialogue, providing explanatory asides to the reader, and moving chronologically through Hobo's preparation for the day. Lincoln and Tim paint the scene from a bird's eye perspective, providing an overview of the layout of the armies, placing the heroes chosen for single combat at the front, and the monsters at the back. There is no close identification with any character, and the stage is set for action in the form of 'clashes' on a mass scale, to be followed by clashes between representative combatants who will decide the outcome. This is a very different way in to a text for readers and writers than the first person/third person perspective Daniel employs, and his careful charting of Hobo's inner state, hopes and expectations to create an empathetic connection with Hobo and his world.

4.2 Real Time Strategy games: Command and Conquer Red Alert

A similar tableau-like structure can be seen in Rhys' piece, handed in as part of a 'regular' Year 7 (age 12-13) writing task. Rhys' teacher had asked students to 'Think of a time, or imagine a time when you were really scared, when fear had absolutely gripped you. Describe the incident and how you felt throughout'. Computer games referred to in Rhys' story include *Doom 2*, a first person shooter game and *Small Soldiers* and *Command and Conquer: Red Alert*, both real time strategy games. The computer game *Small Soldiers* is also a movie, and Rhys refers to that as well.

The opening sentences of Rhys' story serve a number of purposes. They create an ironic stance towards both the set task and the narrative that follows, while also establishing the genre of 'violent' computer games. In many ways the piece enacts the experience of playing. It mimics the amalgam of first and third person characteristics of games as 'I' moves from being an unnamed character/player 'messing around in the shed', to becoming specific characters like 'Tanya from *Red Alert 2*'. Each sentence shows the player slipping between levels and games, so that the narrative proceeds as a series of tableaux. The writer savours the details of the weapons and action, rushing from one game to another, at times collapsing one game into another, at times creating ones quite new. In its structure the piece echoes the format of computer games, but it also resembles them in the wit, resourcefulness and gimmickry by which the character moves into and between levels and games. It closely

approximates the experience of playing, and the intensity and immediacy of the pleasures gained. Such is the energy and exuberance of Rhys' piece that the story spills out of the framed page provided by the teacher for the students' writing, breaking the boundaries established to contain the writing. The fact that Rhys extends the address to the reader beyond the frame, despite having room within it to do so, and that this form of address is redolent of the Terminator movies, suggests a refusal to be constrained by the conventions of the formal requirements of the set activity and an anarchic pleasure in the promise of continuation of this exciting set of events.

Small Soldiers

This might be very disterbing to some readers. This story contains ultra-reality war. O.K, let's start. I was messing around in the shed looking at the mechanical stuff. I like inventing stuff. I put all these circuitry boards and all, I placed them in a bucket and put it on my head. A hollowgraphic screen came up. It had Doom 2, Small Soldiers and Command and Conquer Red Alert. I touched Doom 2. I zoomed into last stage, I know all guns and god mode. Cool… I placed a bomb on the master and BOOM! I got the vapouriser. Shot him a million times, that won't work. Pipe bomb! Threw a few and a boom a boom a boom. He's gone. Then I zapp to small soldiers. I was climbing the power box… Ahhhh I fell from the power box. I had 20 nails drilled through my back. I changed the settings then I turned into Tanya from Red Alert 2 Dual colt guns, Ha Haaa, let's Rock. The sounds of gun fire blew the box and the small soldiers. Like the movie the gorgonites lived. Then I zapped into world war 3
TO BE CONTINUED
BABY!…..

Figure 6: Rhys' most frightening occasion: 'Small Soldiers'

The piece is indeed 'very disterbing to some readers'. In addition to questions confronting the teacher about structural and grammatical issues (is it an inadequate narrative or report? Should/how should the apparent non-sequiturs and problematic referencing be addressed? What about those 'incomplete' sentences?), other questions concern the nature of representational violence, and the undeniable energy and accomplishment of the piece. Rhys is highly engaged, and this school task, appropriated to incorporate his out-of-school world, is indeed utilising the resources of popular culture in the service of conventional literacy. Like all the pieces here, it works, as Haas Dyson (1997) observed in the case of her grade 2 informants, to construct a version of self for both private and public spheres. At the same time, it shows the infiltration of electronic literacies into more traditional narrative structures, and a recreation of that form.

4.3 Nintendo games: The Legend of Zink

A third example, also handed in as a part of a 'regular' English class, this time Year 7 (age 12-13) came from Ben. Ben's piece, *Zink* arose when his teacher asked the class to produce a 500-word story about an imaginary world. Students were given a black-backed, hard cover journal in which to write their story, and had several weeks to complete the task. Ben was inspired by an earlier task where his teacher had asked students to do a review of a game or a CD. Ben's review had been written about the Nintendo game *Zelda*. Having done the review, Ben 'got an idea for how [he] could do it better'. *The Legend of Zink* concerns the 'Kokiri', 'the children of the forest', and is a long story in the fantasy genre. In its final form, *Zink* was literally a multilayered and multimodal text; Ben drafted sections of his story each week before giving them to his teacher, Geoff, who would proof read them and give the corrected version back to Ben. Ben would then type them up, using a font appropriate to the fantasy genre. These segments were then pasted into the journal, literally superimposing printed computer text onto the blank manuscript pages of the book. Pasted again above these were Ben's coloured illustrations of key characters and locations. These were drawn separately, coloured, cut out and pasted in as fold outs, in the manner of children's picture books. The effect was to further break up the two dimensional nature of the text, both vertically and horizontally spreading beyond the boundaries of the page, turning composing into compos(it)ing (Green, 2001), text layering and composition incorporating elements of information technology.

In addition to the story, students in Ben's English class were also required to produce a map, and an account of the people or creatures that lived in this imaginary world. Ben's map incorporated sites from a number of existing Nintendo games as well as some of his own creation (maps and location being central features of most computer and Nintendo games). Ben coloured and labelled his map, outlining the features and inhabitants as required. To complete the map, and *The Legend of Zink*, Ben attached a computer disk to his final assignment, which had on it the music to accompany different sites. To create this he went to a range of websites associated with various games, downloaded and remixed them with his sister's help, so that each episode from the print story, imaginatively located on the map, would have its distinctive accompanying sound.

What does this mean about the ways texts like this should be assessed in the English classroom? Clearly, Ben conceives of his story as a multimodal montage, ranging across the print story, the fold out pictures, the map and the music and linking back to a range of intertextual resonances to the Nintendo games and websites from which they derive. From Ben's point of view at least, he appears to assume his teacher will have no difficulty responding to and assessing across this mix, in which writing, although important, does not carry the story, nor his imaginative vision, as a whole.

5. CONCLUSIONS

The central concern of English/literacy with text and language means that both literary/print based texts *and* newer forms need to remain part of the curriculum. Explor-

ing multimodal texts and literacies involves recognising the qualities and features of different forms. As my examples suggest, however, it is not always easy for young people to use written forms to capture and represent narratives conceived in multimodal forms. While students like Daniel can manage both with accomplishment, pieces such as that produced by Rhys foreground difficulties encountered by students as they try to shift between these forms. As Bearne notes, this becomes particularly problematic in contexts of assessment, where writing that attempts to do this is judged within conventional terms:

> For examinations and assessments rather than personal expression, texts are expected to be written rather than designed. While some young writers find it relatively easy to slip into representing sound, image and movement in words, others end up writing only the words of what in their heads is in fact a multimodal text… their writing is seen as lacking organization and cohesion, whilst it is very possibly only a partial representation of the full story carried in the mind's eye and ear. They are thinking in a 21st century way but – sometimes desperately – attempting to respond to the teacher's 20th century request for writing-dominated forms of narrative (Bearne, 2003: xix).

Studies such as those by Burn (in press), Pelletier (2005) and Vincent (2006) demonstrate the ways in which visual and multimodal elements provide more representative and hospitable frameworks than does writing for the representation, analysis and assessment of multimodal and interactive texts, and for assessing students' response to them. Burn's account analyses the actual making of a computer game by Ogedei, a young student, identifying the kinds of knowledge and genres he draws upon in constructing his game, and as Burn shows, in the process revealing something of Ogedei's understandings and expectations about the textual conventions of games and showing the ways in which he is working creatively with these elements. In Pelletier's study, students were asked to visually represent their games, showing what a screen would look like. Both activities allow students to call upon the principles of design. They provide students with contexts which allow them to more fully represent their vision of the text, and of the relationship between core elements such as avatars, setting, and action buttons, including information about the relative importance of different elements conveyed spatially – through what was in the foreground, background, whether avatars looked towards the viewer or away, and so on. Vincent's study, while not specifically on games, similarly foregrounds the ways in which access to multimodal dimensions of meaning making provided the means for students not particularly comfortable or skilled in writing to create complex and well thought through pieces of work by combining visual and verbal modes.

All this suggests that the combination of visual and design elements alongside print provide a richer and more flexible means of creating and analysing multimodal forms of text such as computer games than do verbal forms of literacy alone. Expanding definitions of literacy suggest that literacy and English classrooms may well increasingly incorporate more media-based forms of teaching, learning and analysis than they do currently. In the meantime, however, as Bearne and Wolstencroft (2006) observe, there is productive work to be done in exploring intersections between students' knowledge of texts like computer games, and the kinds of narrative and other writing currently required in school.

There is also a point here about imagination. Kress argues that imagination, too, may need to be conceived of differently:

> Writing and speech, and their cultural dominance, have taught us to think of imagination in specific ways, and imagination of the one kind: receiving ordered structures, the elements of which need to be filled with our meanings. Yet we are already in an era which is defining imagination much more actively, as the making of orders of our design out of elements weakly organised and sought out by us in relation to our interests…. Imagination produced by engagement with the written text…. is a move towards contemplation; [a move towards design] is a move toward involvement in outward action (Kress, 2003: 152).

If the textual experience of computer games and other interactive forms is stretching the boundaries of narrative and representation, how should educators think about the role of writing in the curriculum and the ways it is used? What happens to writing and the tasks it is asked to do in the context of multimodal literacies? The challenge of bringing together written and digital forms of representation and design in the classroom does not mean that the strengths and values of the written form should be cast aside; in particular, its capacity to provide for reflection and inwardness. It does require, however, a rethinking of the relationship between the two, possibilities for combinations of form, an openness towards what young people are trying to achieve, and an exploration together, between teachers and students, of the dimensions and possibilities of both worlds.

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