Spatial literacies: emergent pedagogies

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Abstract

There has recently been an emphasis within literacy studies on both the spatial dimensions of social practices (Leander & Sheehy, 2004) and the importance of incorporating design and multiple modes of meaning-making into contemporary understandings of literacy (Cope & Kalantzis, 2000; New London Group, 1996). Kress (2003) in particular has outlined the potential implications of the cultural shift from the dominance of writing, based on a logic of time and sequence in time, to the dominance of the mode of the image, based on a logic of space. However, the widespread re-design of curriculum and pedagogy by classroom teachers to allow students to capitalise on the various affordances of different modes of meaning-making – including the spatial – remains in an emergent stage. We report on a project in which university researchers' expertise in architecture, literacy and communications enabled two teachers in one school to expand the forms of literacy that primary school children engaged in. Starting from the school community's concerns about an urban renewal project in their neighbourhood, we worked together to develop a curriculum of spatial literacies with real-world goals and outcomes.

Introduction
Over the past two decades the linguistic turn in the social sciences has meant that significant attention has been devoted to everyday and institutional discursive practices in order to understand how human subjects are constructed. In literacy studies, ethnographic researchers increasingly have emphasised the situatedness of linguistic practices – they are produced in particular and specific social and spatial relationships. Anthropological literacy research has a long history of addressing context in terms of the social, the demographic and the cultural, yet until recently less has been said about space and place as dynamic frames of reference for how people live and communicate. The greater emphasis now given to the spatial dimensions of practices within literacy studies can be seen as one instance of a wider movement in social science to attend to space as a primary category of analysis; as much more than a static backdrop, more even than a rich and dynamic context for what really counts. Indeed space, along with discourse, gender, class and race, is considered as being 'productive' of subjects, relationships, and practices.

Moves to foreground the spatiality of classroom relations in literacy studies are relatively recent (Leander & Sheehy, 2004). With respect to pedagogy more broadly, place and space are often absences from both theory and research (McGregor, 2004). Place-based educators (Gruenewald, 2003) and environmental educators (Martusewicz & Edmundson, 2005) have argued that theorists of critical pedagogy sometimes ignore the spatial dimensions of social practice. Yet there are strong possible synergies between the work of place-based educators and those concerned with critical pedagogy (Gruenewald, 2003), and also between the work of spatial theorists and those of us concerned specifically with critical literacy. Focussing on the spatial and the socially produced nature of space (and place) is very much in alignment with critical literacy's insistence on the constructedness of texts. Indeed recognition of the politics of space – how space is constitutive – is akin to the discursive construction of subjectivity. Clearly, in pedagogical terms, focussing on space allows for analysis of the constructedness of the way things are and the possibility that things might be otherwise (Freire, 1985; Greene, 1988, 1995).

In other developments within literacy studies, the New London Group's conceptual blueprint for a pedagogy of multiliteracies has highlighted the importance of incorporating design and multiple modes of meaning-making and representation into contemporary understandings of literacy, and has emphasised the increasing importance of screen-based and digital practices (Cope & Kalantzis, 2000; New London Group, 1996). The work of Kress, in particular, explores the potential implications of the relatively recent cultural shift from the dominance of writing, based on a logic of time and sequence in time, to the dominance of the mode of the image, based on a logic of space (Kress, 2003; Kress & van Leeuwen, 2001). Another important shift in the contemporary landscape of communication is that multiple or multimodal forms of literacy are part of a globalised information and communication economy and so literacy practices are increasingly situated within, and shaped by, both local and global factors; both immediate material and more distant and virtual, spaces and places.

Many literacy researchers have noticed the increasing differences between in and out-of-school literacies (Hull & Schultz, 2001; Lankshear & Knobel, 2003; Luke & Luke, 2001; Schultz, 2002; Sheehy, 2005) – as well as the fluid boundaries between them

facilitated by online environments (Beavis, Nixon & Atkinson, 2005; Leander & McKim, 2003) – and have argued that students' investments in new and popular literacies highlights the lack of relevance of what is typically on offer at school. However, it is still possible for literacy educators to work towards building curriculum which authorises students' perspectives on the world around them (cf. Cook-Sather, 2002), and what Greene (1995, p. 184) calls 'spaces of excellence where diverse persons are moved to reach towards the possible'. Such curriculum might very well grow out of the arts, with their emphases on visual and spatial modes of representation – modes that encourage us to move beyond what we find it easiest to say.

In our own work we have increasingly taken the view that critical literacy needs to be as much about positive representations of identity and knowledge through textual production as it is about deconstruction (Comber, 2001; Janks & Comber, 2006; Janks, 2006, Nixon & Comber, 2005). A key move for us has been to work with young people and their teachers to develop place-based pedagogies where the teaching and learning are designed to explore the affordances of particular places and spaces (Comber, Nixon & Reid, 2007; Nixon, 2007; Comber, Nixon, Ashmore, Loo & Cook, 2006; Kerkham & Comber, 2007). A related move is working to 'open up' what constitutes literacy at a time when increasingly governments attempt to contain and limit it. This has meant searching for ways of thinking about students' and teachers' work that allow for creativity and imagination as part of a critical literacy project (Comber & Nixon, 2005; Janks, 2006). In this regard we believe Kress and Van Leeuwen's (2001) application of 'design' to curriculum holds much promise.

> Teachers, for instance, may either design their own lessons or merely 'execute' a detailed syllabus designed by expert educators. …when design and production separate, design becomes a means for controlling the actions of others, the potential for a unity between discourse, design and production diminishes, and there is no longer room for the 'producers' to make the design 'their own', to add their own accent. (Kress & Van Leeuwen, 2001, p. 7)

Janks (2000, 2006) has explored how 'design' is crucial in the theory and practice of critical literacy. She takes design to be a 'catch-all word for imagining and producing texts' (p. 3). Her synthesis model of critical literacy 'argues that the theoretical concepts in the field of critical literacy: domination or power, access, diversity and design/redesign are *crucially interdependent*' (Janks, 2006, p.1, emphasis in original). Janks contends that design is central to a critical literacy project because it has the potential to move people 'beyond critique to action' (2006, p.4). Janks goes on to demonstrate how young people in South Africa have worked with different media, modes and languages to collaboratively design texts that represent themselves and their worlds for young people in other places. Similarly, as we will show, in our study a critical multi-literacies approach positions young people as agents using various existing semiotic resources for re-design of actual material spaces.

In neo-conservative times where literacy curriculum has in many places been colonised by clocks and blocks, working in other curriculum areas such as, society and environment, or the arts for instance, may hold out more promise for critical educators. In addition, as Apple (2005) has recently argued, much counter-hegemonic educational work is accomplished 'locally and regionally' and it may be that projects

which attempt to make an immediate material and visible difference in their places are most appealing to today's young people.

However the re-design of curriculum and pedagogy by classroom teachers that allows students to capitalise on the various affordances of different modes and media, and associated hybrid genres, remains in the emergent stage. Despite the growing interest within literacy studies in visual and multimodal modes of meaning-making, and the screen as a new space of representation, space itself remains relatively unexplored in pedagogical terms. Exceptions include one-off projects which did not particularly foreground literacy or teacher curriculum design and pedagogy (e.g. Burke & Grosvenor, 2003). In part the pedagogical silence surrounding space and place may be because teachers need to first build their own knowledges before incorporating the spatial in curriculum, just as they have needed to do with incorporating new literacies that accompany the use of ICT. In our own case we have been keen to locate our research in terms of race, age, class, gender – and indeed place in a geographical sense – but we have not in the past considered space as constitutive of human relations and practices (Lefebvre, 1991; Soja, 1996) or as an explicit aspect of literacy practice. Yet our commitment to social justice has typically found us working in the same 'place' – broadly speaking the west and north of the capital city, in so-called disadvantaged schools in the poorer neighbourhoods of Adelaide, South Australia. Although we have written elsewhere about the politics of representation of people in place (Comber, 1998; Nixon & Comber, 1995), it is only recently that we have begun to foreground space and place in our critical literacy research and pedagogy.

Urban renewal from the inside out: **Repositioning teachers and young people as designers**

This research was part of a project entitled *Urban renewal from the inside out*: *Students and community involvement in re-designing and re-constructing school spaces in a poor neighbourhood,* funded by the Myer Foundation (http://www.myerfoundation.org.au) and carried out in partnership between the University of South Australia and Ridley Grove Primary School, an elementary school in Adelaide, South Australia[1]. *Urban renewal from the inside out* involved two teachers and university researchers and students from the fields of architecture, communications and literacy studies working with elementary school students to negotiate the design and re-making of a desolate garden space located between a preschool and elementary school. The school used the name *Grove Gardens* as a shorthand way of describing the project and talking about it with the children. In addition to the goal of making a material improvement to the school environment, an important aim of the project was to equip student participants with repertoires of powerful social practices such as negotiation, design and consultation.

Urban renewal from the inside out was one of many explicit attempts by the school to re-position students and their families as powerful social agents in the urban renewal process, and one instance of its long-term commitment to exploring the relationship

[1] The project was conducted in 2004 and 2005 by Barbara Comber, Helen Nixon and Louise Ashmore from the Centre for Studies in Literacy, Policy and Learning Cultures, Stephen Loo, Louis Laybourne School of Architecture and Design, and Jackie Cook, School of Information, Communication and New Media, University of South Australia with teachers, Marg Wells and Ruth Trimboli and young people from Ridley Grove Primary School, Woodville Gardens, South Australia.

between place, critical pedagogy and critical literacy (e.g. Comber, Thomson & Wells, 2001; Comber & Nixon, 2004). The inner north-western suburb of the city of Adelaide in which the school is situated has a long history of poverty. Educators there have worked hard to connect the curriculum to the everyday lives and concerns of its children and their families. An important long-term focus of the school's leadership team has been the development of curriculum from the point of view of the least enfranchised (Connell, 1993) and this has included the production of 'authentic', collective and socially powerful public texts, performances and actions that have the potential to make a difference to how the local community sees and understands itself and is represented to others (cf. Cook-Sather, 2002; Nespor, 1997).

This is how the then principal Frank Cairns explained the school's interest in the project:

> I was interested in trying to develop the kids as students having a part in their world, taking part in their world, and having some part in the change process, and how we build the curriculum around that, … part of what I wanted to do was provide life-long learning strategies for the students, so no matter where they were, they would have skills about how you approach something, and the urban renewal seemed a good place to start. …. kids started coming to the school saying to teachers, 'My friend is moving' and 'The house down the street is getting knocked over' and that sort of thing …. it was there, it was happening, and we were saying 'How do we get a say in this?'

An important goal for the school is that children develop the capacity for taking social action about things that matter to them in the 'here and now'.

At the time of our joint project there was little that students could do about what was happening to the houses in the area. However, they were in a position to improve aspects of their school playground and how it looked to, and was experienced by, them in relation to the changing local streetscapes. Teacher Marg Wells, who had previously spent several years at a nearby school whose community had experienced the urban renewal process, had for some time been working on local and neighbourhood literacies around issues of 'place' (Comber & Thomson with Wells, 2001) and she continued this work at Ridley Grove Primary School. An earlier survey conducted by Wells had indicated that students wanted to improve an ugly and unsafe space between the school and the pre-school which consisted of a car park and narrow asphalted path through a flat grassed area. Funding for *Urban renewal from the inside out* provided an opportunity to document the work of Marg Wells (Grade Three/Four) and her colleague Ruth Trimboli (Grade Five/Six) as they involved children in achieving this goal.[2]

Research Design
The design of the research was contingent upon the negotiation of the re-development of the garden and the associated curriculum. As researchers, using ethnographic methods, we sought to document key pedagogical events, to collect the literacy

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[2] See the Myer Foundation web-site at http://www.myerfoundation.org.au/main.asp. It describes its mission in the following way: "The Myer Foundation works to build a fair, just, creative and caring society by supporting initiatives that promote positive change in Australia, and in relation to its regional setting". The views expressed in this paper are those of the authors only and do not necessarily represent those of the Myer Foundation.

assignments and artefacts, and to record the teachers' accounts of children's engagement in the evolving project. Hence the research necessarily followed the garden project. Our aim was to document the change as it unfolded and people's various imaginings and investments in that change. The teachers aimed to use the project to develop children's spatial literacies and the skills and dispositions to act in and for the community.

While their project was focussed squarely on students' participation in the development of a material space within the school grounds, as literacy researchers we were particularly interested in what happened to children's repertoires of literacy practices when teachers added space as a category for commentary and a focus for learning in their already rich critical literacy curriculum. Our questions included: What did teachers and children do with architects' vocabularies, concepts and drawing and modelling techniques? What did children imagine and envisage for this space? To what extent were they able to use various resources to argue for their imaginings? This is where we anticipated that critical and spatial literacies may be brought together as children learnt not only to represent, but also to advocate for, particular designs.

Data Corpus
The entire data corpus includes artefacts produced by children (approximately 140) and their teachers, and architecture, education and communication university students and academics, over an 18 month period. The children's artefacts bear traces of various teaching and learning and conversations about space and place that happened over that extended time. They are also texts brought into existence by the nature of the project – authentic participation in the re-design and rebuilding of a material space – and therefore do not easily fit into existing school literacy genres. Texts, which were individually and collectively produced, include verbal descriptions, poems, reflections, notes, mind maps, reports and stories; visual and hybrid visual-verbal texts such as pencil drawings and plans of bedrooms, homes, the classroom, the school and the site for re-development; artistic works such as paintings, collages, and 3D models of ideas (see Figure 1), imaginings and actual spaces made out of paper, card and other materials (see Figure 2); computer-generated 2D shapes of buildings and 3D Computer Aided Drawing (CAD) representations of children's designs for the site; and collective texts such as the class books known as the windows book and consultation books. Appendix 1 summarises the main conceptual organisers used by the architects in their collaborations with the teachers and children, briefly describes key project events associated with these concepts, and locates many of the artefacts produced by Grade Three/Four students in relation to these concepts and events.

Insert Figure 1 about here
Insert Figure 2 about here

Inventing Spatial Pedagogies and Texts for Consultation
The collaborative development of the design of the *Grove Gardens* required all concerned to open our minds to the pedagogical potential of the project. To some extent pedagogical approaches needed to be invented and adapted. There were no obvious blueprints for ways to move forward. The pedagogies were developed collaboratively through discussion and debriefing between the teachers and the university team. The question was how to move from our vision and intentions to a

realisable yet evolving curriculum. What might transfer from a university architecture or communication workshop to a primary school classroom was not self-evident. And how our critical literacy framing for the project might guide everyday classroom practice was also a matter for investigation. We cannot address all of these questions here; however, we do hope to illustrate how the emergent spatial pedagogies offered particular opportunities for young people to represent their imaginings and their desires for changed spaces.

Initially architect Stephen Loo used workshop methods to introduce children to several key concepts and terms related to social space, design elements and built environments. Two key conceptual organisers drawn from the field of architecture to frame this work were 'Learning the language: building stories' and 'Building designs for spaces of belonging' .An important objective of Loo's workshops was to assist elementary school students to imagine new social spaces and built environments, and to 'translate' their imaginings and ideas into a range of media, and into forms that could be communicated to others using the children's vernacular, the language of school-curriculum learning areas (e.g. art, literacy, technology and design), and the language of architecture and design.

Here we do not have the space to describe the full range of work that was undertaken in workshops and classrooms (see Appendix 1 for an indicative sample, and Comber et al. 2006). Rather, we focus on texts produced by Grade Three/Four students during the 'consultation' phase of the project in which the children attempted to represent their final views of how the garden might be imagined and designed and to get feedback from others about these ideas. We focus on these texts because they represent the culmination of many months' work in which the children had imagined, discussed, modelled, and physically pegged out their possible designs in the school grounds; they had visited several local community gardens; and had explored the notion of 'spaces of belonging' in many iterations of curriculum work. We also focus on these particular texts because the processes that led to their production exemplify the emergent pedagogical approach adopted by one of the teachers during the project as she grappled with how to bring together critical approaches to literacy education and a focus on the spatial dimensions of meaning-making.

During this consultation phase of the project each child or pair was responsible for producing two texts which were later made into pages in what we collectively called 'consultation books'. The books were in a sense a purpose-made genre that fulfilled at least two purposes. Firstly, they allowed children to represent on paper their key ideas about the garden by drawing from a repertoire of ideas that had been developed over a significant period of time, and as a result of working with various vocabularies, concepts and media. Secondly, the books constituted artefacts that documented the children's ideas in a form that could easily be shared with and commented on by others.

The first text produced was a written text which addressed three questions:
>What would I like to see in the area?
>Why?
>What would it look like? Describe.

The second text was a visual text (some of which also included verbal labels as in architectural drawings) produced using their choice of medium, and representing their

favoured plan for the design of the area. Each visual text was produced on tabloid size paper but students were able to use a choice of paint, black ink pens, coloured markers, collage, cellophane, leaves, popsicle sticks and so on, to produce their images. When assembling the books some blank space was deliberately left on the written text page to allow children and teachers in other classes, and parents, to provide feedback to the written ideas and visual images using marker pens.

As we have mentioned, the children were able to work alone or in pairs, hence they were encouraged to share their collective resources for meaning-making. This is a characteristic feature of Marg Wells' pedagogy that she continued during this project. In her classroom, students' collective representational resources are pooled. In this case, meaning-making – verbal and visual – were collaborative and collective enterprises with actual interested audiences in sight. Children were producing their texts for their peers, teachers and the wider school community. Once and the books were assembled, groups of child authors took the books to every class in the school for discussion and feedback. Later, on 'Belonging Day', the consultation books were also available for parents to respond to. A second feature of her pedagogy of note here is that the written task was structured and clearly framed; the children had already built up considerable knowledge of the field (garden design); and had rehearsed their preferences and arguments in numerous forums. Pedagogically then, Marg Wells guaranteed that these student-produced texts would be expansive (through the peer collaborations) as well as socially significant (through their collective input and audience and connection to real outcomes).

We turn now to examine Grade Three/Four pages of the consultation books in which the impact of spatial thinking in children's developing literacy repertoires is made visible. We suggest that the project generated new relationships between the spatial, imaginary and material worlds children envisaged and represented.

Re-imagining Space: Playworlds and Lifeworlds
In this section we first consider in some detail two texts collectively produced by two boys for the consultation books and then consider what was accomplished in relation to spatial literacies in the complete corpus of verbal and visual book pages produced by Wells' students.

Firstly, here is the written text produced for their first book page produced by two boys, Adrian and Tan, aged 8-9 years (see also Figure 3):

> **What would I like to see in the area?**
> A big maze with some switches
> **Why?**
> So kids who are waiting can play in it while they are waiting for their mum and dad to pick them up and kids can get tricked because they won't know which is the beginning and which is the end.
> **What would it look like? Describe.**
> The walls around the maze are made of cement and are painted in gold. It will be 10 metres high and it will have traps inside it. You have to find a key to get out and you have to take a friend with you.

The boys summarise what they would like to see in the area using only six words: 'a big maze with some switches'. Here they imagine the desolate school yard space transformed into a material representation of something that they are fascinated by in the worlds of electronics and electronic gaming – 'a maze of switches'. Explaining *why* they would like to see the space designed like a maze of switches, they write:

> So kids who are waiting can play in it while they are waiting for their mum and dad to pick them up and kids can get tricked because they won't know which is the beginning and which is the end.

Adrian and Tan therefore imagine the re-designed material space performing a dual social function: providing both a designated place for children to wait to be collected from school by their parents, and a place for children's pleasurable play that involves the complex and hidden spaces of a maze as well as other tricks and puzzles. When they describe how they would like the maze to *look*, we can see how the boys draw on their developing architectural design vocabulary and spatial literacies as they note specific details about the *height* of the walls (10 metres), the *material* used to make them (cement), and how they would be *decorated* (painted in gold). Two particular features they say they would like to see in the maze are that 'it will have traps inside it' and 'you have to find a key to get out.' They also stipulate that children would not enter the maze alone, but rather, 'you have to take a friend with you.'

The boys' written text therefore combines an awareness of the *social function* that the space designed as a maze will fulfil in the redesigned area (kids can play in it while they wait for their parents, friends will enter the maze together), with aspects of their own specific and gendered interests in mazes and other games that include 'tricks', puzzles and quests ('you have to find a key to get out'). In other words, their writing moves between a description of Lefebvre's (1991) concept of *perceived space* – an acknowledgment of what the space is *actually* used for (waiting for parents, playing with friends) – and his concept of *lived* space; space that is lived or experienced but which the *imagination* also seeks to change. The boys' writing shows that theyare able to imagine how this newly designed space in the school yard could become a 'space of belonging' for members of the school community by improving the ways in which social relations are conducted within it. At the same time, they are beginning to imagine how, in design terms, the re-designed space could also replicate some of the features of electronic and fantasy games that they obviously enjoy: entering a maze; confronting switches, tricks and other obstacles; and searching for ways to successfully end adventures and quests. The fact that the boys want the high cement walls of the maze to be 'painted in gold' suggests that they are well aware that their design that is intended to change the material and 'real' lifeworld that they inhabit is, in fact, being overlaid in their plan with elements of imagination, fantasy and desire associated with fantasy fiction and electronic game-playing. This is a mix of serious and playful writing and imagining.

Insert Figure 3 about here
Insert Figure 4 about here

As in their written text, Adrian's and Tan's *visual* representation (see Figure 4) of what they would like to see in the area also combines elements of realism (grass, pathway, toilet blocks designed for 'big kids only' and some for 'little kids') and

elements of fantasy (winged dragon, two kinds of maze). In relation to their developing spatial literacies, we can see that aspects of the image resemble an architect's plan with its aerial view, a sense of scale, lines that depict a pathway linking one side of the area to the other, written labels indicating whether a structure is a toilet block or gate, and icons that represent design elements such as seating structures and shelters. Architectural vocabularies, as well as design and drawing conventions, have entered their semiotic repertoires. But, as in the writing, there are also other kinds of visual elements fore-grounded in this image, elements not so obviously connected with the spatial. Most obviously different from an architect's plan is the vibrant red dragon with yellow wings which seems to be devouring one end of the pathway that links the school and pre-school. As in many fantasy genres, the dragon is comparatively over-sized in terms of scale, and its presence is further highlighted by that fact that, unlike other objects, it is depicted not from an aerial view but from a lateral view. Thus both their written and visual text suggest the boys' desire for their playground space to be re-designed as a *social* place for play and adventure, but also as a space which specifically includes elements of popular culture and digital play with which they are familiar in their lifeworlds. This desire to include in school playgrounds aspects of play that are promoted to children by the leisure industries is common not only to texts produced by Adrian and Tan, but also to many others students in Wells' class, and is also consistent with findings of the UK project *The school that I'd like* (Burke & Grosvenor, 2003).

The consultation book pages produced by Adrian and Tan illustrate what was made possible by Wells' emergent pedagogical approach which brought together a focus on developing in children the capacity to take action about things that mattered to them with a focus on spatial literacies. Of particular interest to us is how this pedagogy allowed diverse children to draw on the range of cultural resources they had at their disposal, and to use these resources in order to connect not only with new concepts of spatial literacy, but also with more traditional school curriculum requirements.

We also suggest that this curriculum and pedagogy allowed Adrian and Tan to do significant identity work around masculinity, and being a pre-teen boy with an interest in computer game culture. For example, the image of the red dragon has its origins in Yugioh cards and associated online games, and it recurs throughout Tan's work produced over a long period. In several of Tan's texts the red dragon is depicted in conjunction with other images and motifs familiar from quest adventure games - mazes, mediaeval weapons and keys. For example, in earlier curriculum work focussed on developing the architectural concept of 'spaces of belonging', Wells had invited students to draw, talk and write about spaces and places in their lives in which they felt that they belonged. In response to such invitations Wells' students often created drawings of bedrooms or houses. However, an early illustration by Tan of his poem titled 'In my belonging space' depicted a bedroom-living room which contained not only the items that one might expect to find in such a space (bed, armchair, table), but also two sculptures or models of dragons hanging from the ceiling by chains as in a dungeon (top left Figure 5). Other sections of the room contain a table or storage board dedicated to weapons used in quest adventures (mediaeval weapons, shield, large dungeon key), and an extremely large media centre containing several games consoles (labelled Gameboy, Playstation and Playstation 2) accurately drawn down to the minute details of accessories, wire connections and electricity plugs (top right Figure 5).

Insert Figure 5 about here

In our view this text illustrates the productive potential - for this child at least - of a pedagogical approach which encourages children to produce visual texts alongside verbal texts and allows them to draw on their popular cultural resources. When this approach was combined with a focus on developing understandings of space, children in this project were able to work with and develop a range of spatial literacy concepts. These included abstract understandings about design and social space such as 'spaces of belonging', and more technical skills such as how to represent ratio and scale, and how to represent the relationships between objects in space.

These achievements were not confined to one or two children in the class. On the contrary, evidence from the corpus of texts in the two consultation books produced in this class indicates that many children had developed significant capacities for spatial literacies (see Table 1). Their texts suggest that these accomplishments drew on both the resources introduced by the architects, and the complementary affordances of visual and verbal modes of meaning-making.

Insert Table 1 here

The politics of imagination: Pedagogical productions of spatial and social worlds
Exploring the spatial dimensions of lived experience can provide important inroads for young people into critical literacies which are material, imaginative and creative. Working with the discourses and practices of architecture to redesign part of the school grounds opened up opportunities for both children and their teachers to think in new ways. In the process both children and teachers expanded their semiotic repertoires and engaged in imagining, negotiating and representing themselves in the spatialised world of the school and beyond. Here we have provided only a snapshot of a complex project that has already run over two years. In the rich archives of children's work we are beginning to see how different children have appropriated and or adapted various semiotic resources from their home communities, popular culture and the academic discourses and practices available at school to make their meanings over time.

Our experiences suggest that using space as a focus for learning and frame for curriculum design is both generative and productive, in the sense that it allows all children to contribute what they know about perceived and lived space. Further, it allows them to imagine how different people might populate different spaces, and how spaces might be re-configured and why. In their artefacts we can see traces of their classroom pedagogical history: an architect's PowerPoint presentation about buildings and the stories that might surround them; neighbourhood walks; discussions about local housing development issues; workshops on belonging spaces ; visits to newly developed local parks, to the university architecture studio, and to the CBD of the city of Adelaide.

The project illustrated very clearly Jan Nespor's (1997, p. 12) argument that pedagogy is 'an ongoing collective accomplishment'; it involves 'real practices slowly accomplished over time and space, continuously modified to deal with change and contingency' (cited in McGregor, 2004, p. 366). Teachers involved in the project have

been willing to expand the boundaries of what variously seems as a shrinking normative space for literacy work and at other times an overloaded curriculum. The layered nature of the curriculum and pedagogical work they carried out with the children, and the ways that it drew on multiple traditions, allowed for and encouraged a simultaneous consideration of the aesthetic, the literary and studies of society, as well as the productive effects of working across multiple media of representation and communication. Their classes were sites of a rich and recursive pedagogy that was accomplished collectively over time and space.

One of the joys of this project for us as literacy researchers was the opportunity to work with teachers who were themselves creative and open to expanding repertoires of pedagogical and literacy practices. Both teachers took hold of the project with great enthusiasm and proceeded to invent possibilities for tasks, activities and genres that were responsive to what their students could already do, what they needed to work on further, and the open-ended possibilities generated by the project itself. This is not always the case in schools. Even when new initiatives and innovations claim to be new or promise opportunities for change, schools by their very nature sometimes limit what is possible, stripping the practices to simulations and reducing meaningful tasks to skeletal approximations of what they might have been. The force of school time and space, as business-as-usual, can make routine and contain even the potentially exciting. Regrettably we have witnessed this schooling phenomenon ourselves. However, in this case, the opposite occurred. The *Grove Gardens* project appeared to release the energies and imaginations of the teachers along with their students.

Maxine Greene has long written about how and why the imagination is politically significant (1988; 1995). She has argued that 'human freedom' involves 'the capacity to surpass the given and look at things as if they could be otherwise' (Greene, 1988, p.3), and further that:

> When people cannot name alternatives, imagine a better state of things, share with others a project of change, they are likely to remain anchored or submerged… (Greene, 1988, p.9)

She goes on to emphasise the importance of 'the ability to make present what is absent, to summon up a condition that is not yet' (Greene, 1988, p. 16). From our perspective the project allowed this kind of imagining. We see this creative design work and the associated visible material action over time as crucial to sustaining critical multi-literacies in schools (New London Group, 1996; Janks, 2002, 2006).

Whilst we have argued for the potential of working with the positive energy that comes from design and re-making spaces, we do not wish to suggest that the process was straight-forward or unproblematic. The community consultation involved fewer parents than the principal and teachers had hoped for. It may have been that parents were simply unable to spare the time or that they doubted that the invitations to contribute were genuine. Even though some parents did actively get involved, the numbers were small and largely restricted to the usual volunteers. Within the school it was not always easy to involve other teachers and their classes due to timetabling constraints and competing priorities. At a crucial time in the project, after a series of delays with the actual work in making the garden and budget under-estimates, the school principal was transferred to another role out of the school. This left an Acting-

Principal and then a replacement Principal to take up the project mid-stream and trouble-shoot various problems, such as vandalism, poorly executed ground-work and just the mess that change to the grounds produces (such as holes in the ground, alternatively dust and mud, equipment and so on). The frustrations and tensions produced by delays, insufficient funds, and ambitious designs should not be under-estimated. Yet these are aspects of living with change. Moreover these material realities were already part of the lives of many of these children and their families. At the very least in this project the young people were afforded the space and time in school to imagine how a part of their school-world might be different and to participate in its re-making, even if, not all of their hopes could be realised.

References

Apple, M. (2005). Doing things the 'right' way: Legitimating educational inequalities in conservative times. *Educational Review* 57(3), 271-193.

Baker, J. (1991). *Window*. London: Julia MacRae.

Beavis, C., Nixon, H. & Atkinson, S. (2005). LAN cafes: Cafes, places of gathering, or sites of informal teaching and learning? *Education, Communication and Information, 5*(1), 41-60.

Comber, B. (1998). Problematising 'background': (Re)constructing categories in educational research. *Australian Educational Researcher, 25*(3): 1-21.

Comber, B., & Nixon, H. (2004). Children re-read and re-write their neighbourhoods: Critical literacies and identity work. In J. Evans (Ed.) *Literacy moves on: Using popular culture, new technologies and critical literacy in the primary classroom* (pp. 115-132). Portsmouth: Heinemann.

Comber, B., Badger, L., Barnett, J., Nixon, H. & Pitt, J. (2002). Literacy after the early years: A longitudinal study. *Australian Journal of Language and Literacy 25*(2), 9-23.

Comber, B., Nixon, H., Ashmore, L., Loo, S. & Cook, J. (2006). Urban renewal from the inside out: Spatial and critical literacies in a low socioeconomic school community. *Mind, Culture & Activity 13*(3), 228-246.

Comber, B., Thomson, P. (with Wells, M.). (2001). Critical literacy finds a 'place': writing and social action in a neighborhood school. *Elementary School Journal, 101*(4), 451-464.

Connell, R. W. (1993). *Schools and social justice*. Philadelphia, PA: Temple University Press.

Cope, B., & Kalantzis, M. (Eds.) (2000). *Multiliteracies: Literacy learning and the design of social futures*. Melbourne: Macmillan.

Freire, P. (1985). *The politics of education: Culture, power and liberties*. (D. Macedo Trans.). South Hadley, Massachusetts: Bergin & Garvey.

Greene, M. (1988). *The dialectic of freedom*. New York & London: Teachers College Press.

Greene, M. (1995). *Releasing the imagination*. San Francisco: Jossey-Bass Publishers.

Gruenewald, D. (2003). The best of both worlds: A critical pedagogy of place. *Educational Researcher, 32*(4), 3-12.

Holland, D, Lachicotte, W, Skinner, D & Cain, C (1998). *Identity and agency in cultural worlds*. Cambridge, MA: Harvard University Press.

Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research, 71*(4), 575-611.

Janks, H. (2006). 'The place of design in a theory of critical literacy'. Keynote address presented at the Australian Association of Teachers of English and Australian Literacy Educators' Association Annual Conference. Darwin High School, July 11th.

Janks, H. (2002). Domination, access, diversity and design: a synthesis model for critical literacy. *Educational Review 52*(2), 175-186.

Kress, G. (2003). *Literacy in the new media age*. London: Routledge/Falmer.

Lankshear, C., & Knobel, M. (2003). *New literacies: changing knowledge and classroom learning*. Buckingham, UK and Philadelphia, PA: Open University Press.

Leander, K., & McKim, K. (2003). Tracing the everyday 'sitings' of adolescents on the Internet: a strategic adaptation of ethnography across online and offline spaces. *Education, Communication and Information, 3*(2), 211-240.

Leander, K., & Sheehy, M. (2004). *Spatializing literacy research*. New York: Peter Lang.

Lefebvre, H. (1991). *The production of space.* Oxford: Basil Blackwell.

Luke, A. & Luke, C. (2001). Adolescence lost/childhood regained: On early intervention and the emergence of the techno-subject. *Journal of Early Childhood Literacy 1*(1), 91-120.

Martusewicz, R.A. & Edmundson, J. (2005). Social foundations as pedagogies of responsibility and eco-ethical commitment. In D.W. Butin (Ed.) *Teaching social foundations of education: contexts, theories and issues.* (pp. 71-91). Mahwah: Lawrence Erlbaum.

McGregor, J. (2004). Spatiality and the place of the material in schools. *Pedagogy, Culture and Society, 12*(3), 347-372.

Nespor, J. (1997). *Tangled up in school: Politics, space, bodies, and signs in the educational process*. London: Falmer.

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60-92.

Nixon. H. & Comber, B. (1995). Making documentaries and teaching about educational disadvantage: Ethical issues and practical dilemmas. *Australian Educational Researcher 22*(2), 63-84.

Schultz, K. (2002). Looking across space and time: reconceptualising literacy learning in and out of school. *Research in the Teaching of English, 36*, 356-390.

Sheehy, M. (2005). *Can non-school literacies be practiced in school?: An examination of social movement across contexts from a time/space perspective*. Unpublished manuscript. University at Albany, State University of New York.

Soja, E. (1996). *Thirdspace*: *Journeys to Los Angeles and other real-and-imagined places.* Oxford: Blackwell.

Captions for Tables and Figures

Table I: Children's accomplishments in visual and verbal modes illustrated in consultation books

Table II: Summary of architectural concepts, project events and student texts

Figure 1. Modelling design element: pathway

Figure 2. Imagined garden spaces made of card and paper

Figure 3: Adrian and Tan's written text in the Consultation Book

Figure 4: Adrian and Tan's visual text

Figure 5: Tan's illustration of his belonging space

Table I: Children's accomplishments in visual and verbal modes illustrated in consultation books

Spatial literacies in verbal mode	Spatial literacies in visual mode
Make a comprehensive case about the design	Provide an overview of the space using aerial and other perspectives (e.g. elevations)
Make a persuasive rationale for the use of the space	Make an architectural plan; indicate emergent understanding of scale and ratio
Incorporate architectural vocabulary including design elements (e.g. platform, wall, pathway)	Use solid lines to demarcate edges of spaces and division of objects in space
Include significant detail and specificity (shape, size, colour, material)	Show the relationships of places and objects within a space; convey functions and relative size and shape of objects in space
Draw on appropriate discourses (e.g. aesthetic, health and safety, promotional)	Communicate the social nature of space; indicate awareness of the aesthetic dimensions of design
Transfer conceptual and representational resources (e.g. from game-playing)	Transfer conceptual and representational resources (e.g. from game-playing)

Appendix

Table 1I: Summary of architectural concepts, project events and student texts

Architects' conceptual organisers	Key project events	Grade Three/Four student-produced texts
Learning the language: building stories	'Building stories' presentation by architect/ lecturer Stephen Loo who invited children to build stories about interesting-looking buildings by imagining what kinds of buildings they are, what might happen in them, who might use them, and who might belong to them. Key terms: design, belonging.	Mindmaps and writing about buildings and structures. Colour and pencil drawings of the school, buildings and houses.
	Visit to architecture studio. University and school students were invited to relate architectural drawing and communication conventions to more elusive understandings of concepts that are difficult to quantify and communicate: lived experiences, belonging, security, and cultural nuances.	Drawing and writing about CBD structures. 'Building shapes': Computer-generated images of shapes combined to make images of interesting buildings.
Design elements	Students used discussion, writing, drawing and 3D modelling to explore architectural design elements: pathway, platform, garden, walls.	Design of interiors and exteriors of buildings and favourite places. Windows book
	Visit to local themed gardens – 'The Early Settlers Garden' and the 'Vietnamese Garden' - which incorporate a range of design elements relevant to the students' re-design of the school site.	Written reflections and drawings of design elements in the parks.
Pegging out	Students pegged out their first designs from paper and small scale models onto the site in actual scale and this informed their re-design.	Labels of objects and design elements on pegged-out to-scale designs.
Translation	Children developed skills in 'translating' their ideas from talk to other media. Architecture students consulted students' texts and 'translated' ideas into site design concept.	Notes, drawings, paintings, 2D plans and 3D models of designs for the area.
A belonging space: building designs for spaces of belonging	Activities that allowed children to rethink notions of space, shelter, and structure and to revisit the concept of belonging space.	Illustrated belonging poems Pet environments Eggs as spaces and

		environments
Belonging day	School students and architecture students consulted with the wider school community using student consultation books and architecture students' drawings and 3D models.	Consultation books: illustrated writing about what children would like to see and do in the area