The production and distribution of Burarra talking books

The use of ICT's to support literacy in a minority Indigenous Australian language is an important domain of pedagogy that is often overlooked by teachers in these contexts. The development of new technological configurations in remote communities can be highly supportive of Indigenous languages spoken by a small number of people. This paper reports on a case study in which talking books were constructed in Burarra, a language spoken by approximately 1000 people in Arnhem Land in the Northern Territory. The research adopts a critical approach to technology to follow the construction of Burarra talking books in a remote homeland context and the display of these texts on computers in a home environment. Examples of the talking books and video of the interactions with these texts are included to highlight the technological configurations that surround the production and consumption of Burarra Talking Books. This paper explores the learning opportunities surrounding drill and practice software that contain highly valued images of everyday social practices mediated in an Indigenous Australian language in a remote location. We suggest that simple talking books used in an off-line environment at home can be highly effective in providing Indigenous children with connectedness to places of significance and offer the children with opportunities to develop their literacy pathways in their first language.

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Editor's Note:

INTRODUCTION

Before we begin to discuss the use of ICT to support minority Indigenous Australian languages, we need to outline the approach we are taking to this paper. In discussing the effectiveness of Indigenous language programs, Laughren (2000) suggests that 'the most productive and successful projects usually result from cooperative partnerships between Aboriginal language speakers and people with a diversity of other skills – linguistic organisational artistic pedagogic and political'(p.1). The Indigenous and non-Indigenous partnership has continued throughout from the design of this research project through to the writing of this article. We were conscious of the different knowledges we bring to the writing of this paper and our collaborative approach to writing will 'situate western academic discourse, and its conventions, as only one of a number of epistemological traditions'. We have used a dialogical approach to the writing of this paper so readers can explore the intersection of the use of computers in a minority Indigenous language context with Indigenous epistemological traditions and academic discourse. By outlining our separate contributions we made to this paper we hope that readers can begin to see the need to broaden the academic frame when reporting about Indigenous research in remote communities.

This paper begins by justifying the use of ICT in an minority Indigenous Australian language context before outlining how drill and practice software can be contextualized with local languages and images of important social practices. We then identify the collaborative methodology that underpinned the construction of the interactive texts in a remote homeland context. We present some results of this study as shockwave videos and talking books to help contextualise the reader in the multimodal aspects of Indigenous language use around the computers at home. We finish by discussing some practices of computer use in this remote context that teachers

may find useful in the broader context of Australian educational computing.

ICT and Indigenous Australian languages

Glenn: Many children whose first language is English take for granted that their learning through ICT's is in their preferred language of communication. The rights of these children to access learning spaces are upheld in a linguistic sense through the massive array of digital text and television channels that mediate English. The linguistic human rights of these children is often taken for granted in schools and homes across Australia. Speakers of minority languages also have a right to access texts in their first language as part of their linguistic human rights. This study upholds the rights of a group of Indigenous Australians to access digital texts in their first language in a remote location as a medium through which their educational opportunities can be improved. This study respects the rights of the Burarra speaking community to have access to digital texts in Burarra so that their children can choose to read texts in their preferred language of communication before they arrive at school.

Rose: Burarra is my first language, I also speak Jinang, Yolngu-matha, English and Kuninjku. I am trained teacher and work at Maningrida Community Education centre as the Burarra teacher Linguist. I oversee the Burarra Two-Way Learning Program. Burarra speaking children come to school learning to read and write in Burarra before transferring these skills to English. Part of my job is to develop new resources in Burarra for the school and the community. About 1000 people speak Burarra so the work that I am doing is important.

My country is Ji-balbal which is homeland about 60 kilometres south east of Maningrida in the Northern Territory. There are four houses and one shed at Ji-balbal. There is a river and a floodplain on my country. It is a rich source of traditional foods including geese, buffalo, pigs, long neck turtle and wallabies. There are too many crocodiles on my country.

Glenn: Laughren (2000) suggests that, as the number of Indigenous Australian languages has decreased, those languages that remain have been represented in a variety of media. This study exemplifies this diversity of representation of Indigenous languages by reporting on the production and consumption of digital Burarra Talking Books.

Justifying the Talking Books

According to Chera & Wood (2003) animated talking books have been shown to improve phonological awareness amongst children. There is some research to suggest there are limitations, however, with the drill and practice routines that are associated with these kinds of behavioural activities. The computer takes on the role of a tutor in drill and practice software. In this role the computer evaluates the students' interactions and provides feedback. This role as a tutor represents only a very narrow understanding of the complex skills and practices that go to make up literacy in a remote multilingual Indigenous community.

One of the differences between the drill and practice software and the Burarra Talking Books is the latter uses images of everyday practices, situated in meaningful places, familiar to the Burarra speaking children. Research suggests that drill and practice routines can be transformed from low level didactic approaches to high level constructivist thinking through the use of wider access to the computers and a strong sense of audience. By starting with the images of the children's everyday practice around Ji-balbal, the Burarra Talking Books privilege a cultural inclusiveness that respects the children's ways of knowing. This research also privileges Burarra speaking children's right to access to digital texts mediated by their first language. The Burarra Talking Books are well positioned to support constructivist learning practices.

Street (2001) suggests that effective literacy pedagogy begins by 'understanding the literacy practices target groups and communities are engaged in' (p.1). While the images capture the everyday practices of the participant family they also demonstrate the strong relationship the family have to their country. The fact that the sound of the text is in Burarra privileges the family's preferred language of communication. While researchers have highlighted the capacity of ICT's to provide multimodal representations (Cazden et al., 1996; Kress & Van Leeuwen, 2001; Zammit & Downes, 2002), the Burarra Talking Books used the modal channels of the computer to represent everyday practices of a family living on their homeland. This provides a contextual background for the literacy activities associated with the Burarra Talking Books, reducing the disconnectedness these activities often have with the children's everyday practices.

METHODOLOGY

Glenn: This study is a collaboration between Indigenous and non-Indigenous people from the design of the study through to the writing of this paper. Smith (1999) has articulated that respect for Indigenous people by non-Indigenous researchers as a critical factor for the success of research on Indigenous lands. The construction of the Burarra Talking Books is one chapter in this respectful relationship between Rose and myself. The respect for each other meant I was researching with, rather than on, the participants (Cameron, Frazer, Harvey, Rampton, & Richardson, 1992). A mark of this collaboration is the context of this study. The Burarra talking Books were developed while I camped with Rose and her family at Ji-balbal.

Rose: When Glenn rang me I invited him to share some time with me at Ji-balbal to make some talking books in Burarra. I asked him to come out for a week before the wet season, when there were lots of turtles but not many geese. Glenn explained that the Burarra talking Books would have stories using the digital camera. I gave permission for Glenn to enter my country so that other family members would know that he was coming out to talk to us about making the books. I knew Glenn when he was working at the school. I would not have made books with a stranger on my country. I could see the potential benefits of making the Burarra Talking Books. The children would learn about reading at home on the computer.

Glenn: I had made some talking books in another Indigenous language spoken in Maningrida before in a previous study (Auld 2002). Rose has spoken to participants in this previous study as to who had access to their language on computer and I know that this informed her decision to participate in this research.

On arriving at Ji-balbal, Rose suggested we go hunting for barnda (turtles) on the floodplain. We went to a billabong on the edge of the floodplain in Rose's truck with her family. As a way of respecting the children's ways of knowing, the children were offered the digital camera so they could take photos of the experiences that meant something to them. Other researchers have used a similar method of providing children with digital cameras to support their voice in the research (Fleer & Williams-Kennedy, 2001; Thomson & Gunter, 2007).

Rose: When my grandson saw the floodplain all he wanted to do was swim and run around in the water so I told Glenn 'don't give him that camera because he might wet the camera.'

Glenn: All of the adults began collecting turtles. This was serious food business. Rose gave me permission to take photos. We had a previous arrangement that only the appropriate photos for public display would be selected for

the texts. Although the children did not take the photos they were involved in collecting the turtles in an everyday activity that was not constructed just for my benefit. I took lots of images so the family had lots of choices when it came to selecting the texts.

Rose: We got the pictures, we downloaded them and then we got started by getting the kids to come and tell us a story from the images. We sorted the images in order to make the story. We recorded the story and played it back to hear the mistakes and then fixed them up. Then I wrote down the words. I typed the Burarra up. We did the same thing to another few books. We recorded the sounds for each word of the book. This was an interesting way of making Burarra talking books going from images to sounds to written text. The children could make the story themselves and I typed what they said about the images.

Glenn: Although the children were not involved in taking the photos for the turtle story, they took some of the pictures for other talking books. The children took pictures and then selected and ordered the pictures in a sequence for a book. The sequencing of the images involved lots of oral language which supported the process of writing a short text about each picture.

Rose: I wrote down what the children were saying in Burarra. This was easier than just writing a story from ideas because the children were telling me the story. The children just looked at the photos and told me what was happening. It is meaningful to the children and it is easier for them.

Glenn: The Burarra Talking Books were made using Macromedia Director. I had learnt how write the multimedia code needed to run the talking books while teaching at the school. I had a template of the texts in English but Burarra has different alphabet. At Ji-balbal I found myself sitting on a swag sat in a mosquito net at night changing the Lingo code as cane toads hopped past. When the images sounds and texts from one story were made into the first Burarra Talking Book, it was a great relief, as I did not have any on-line support at Ji-balbal. The public phone was not working while I was there so there was no way of ringing somebody for support. (Near the end of my stay at Ji-balbal a helicopter landed, the technician emptied the phone of its coins and then they flew away to the next homeland community.)

Rose's family were very happy and some old people were excited to hear Burarra on the computer. Word about the computer speaking Burarra spread around the homelands. As people passed through Ji-balbal to hunt for turtles they asked to see the stories on the computer.

THE RESULTS

Rose: An example of one of the Burarra Talking Books that we made is shown in figure 1 below. This story is about us collecting turtles. If you click on the middle image of the activities (the second screen) you can view the talking book. All the other activities use the text from this story.

When we came back to Maningrida, Glenn left a computer at home for us to read the Burarra Talking Books. Some other families came and had a look. They thought it was a good idea to have the talking books on computers. They can see the words everyday on the computer about our trip to Ji-Balbal.
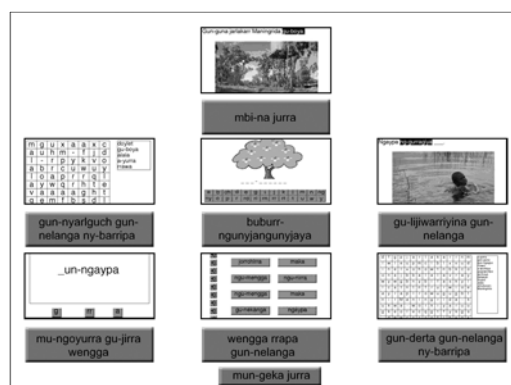

Figure 1. A set of buttons used by the children to navigate to reading and phonic activities for each Burarra Talking Book.

At my home, the children viewed the stories with the adults. They liked reading the story as a family. Sometimes the children and adults would tell jokes about the pictures. The computer was very popular, the people accessed the stories day and night. I showed the older children how to use the mouse and then they could access the stories on their own. We got about two or three months use out of the computer before it stopped working. Figure 2 shows a video of my grandson reading a story on the computer with me on my verandah.

Figure 2. Rose reading a Burarra Talking Book with her grandson

Interpretations

Glenn: While readers of this paper will draw their own analysis of this work, we have attempted to outline some transferable aspects of this project that may be useful for teachers across the Australian educational computing context.

The first aspect of our project worth considering is the use of computers to mediate important places. While much has been written about the value of home school connectedness in education, this study highlights the value of using technology to mediate a place-home connectedness. The Burarra Talking Books displayed on computers in Burarra speaking family

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homes in Maningrida enable children to virtually reinhabit their country while living away from it. The logical next step is to bring these stories about place into the school context. Hopefully we have stimulated some understanding about the important role technologies can play in mediating place-home-school connectedness and highlighted how home school connectedness might need rethinking to include place school connectedness.

The second aspect of this project is the methodological approach to creating and viewing multimodal texts. Kress & Van Leeuwen, (2001) have articulated four elements of multimodal text; discourse, design, production and distribution. In this research project, these four elements provide a strong methodological framework for developing the texts in a minority language. While the discourse of these texts is embedded with the children's everyday social practices, the design of the application that presented the texts and the computer that mediated them is a borrowed non-Indigenous one. In his critical theory of technology, Freenberg (2002) has suggested that empowerment through technology comes by acknowledging 'the social values placed on the design, not just use, of technological systems' (p.14). The distributive element of this methodological perspective is rather weak in this study.

Rose: It would be good if computers that had our first language on it were available for people to buy at the shop.

Glenn: The choice to purchase computers that display texts in our first language is something many people take for granted in other parts of Australia, particularly if the computer comes with an internet connection and user's first language is English.

A third aspect of our project is the concept of new uses for old technologies. In one sense we were doing this with Burarra, as a language and a technology. Black (1993) has suggested that new uses for Indigenous languages can result in changing the structure of the language and the discourse patterns of the language. The metalanguage of children's language use outside of school is something that teachers might explore in an attempt to connect to their changing ways of being. This project also used old computers in new ways to promote the children's access to texts in their first language. Levy (1997) suggests we should make use of all that 'has gone before, rather than be led purely by the capabilities of the latest technical innovation' (p. xi). A good example of this is the decision to use an off-line technological configuration given the context of where these texts are accessed. We would encourage teachers to think about alternative technological configurations that match as social need rather than simply consume the latest technological configuration that may not be designed for the immediate local social practices.

CONCLUSION

Glenn: This research has reported on the use of computers to support the digitalisation of minority Indigenous Australian language. The focus on technology in this study is to support a range of relationships around the production and consumption of Burarra Talking Books. An important aspect of this research is to improve the children's choice to access texts about their everyday practices in their first language at home. It seems appropriate, therefore, to conclude with a video that demonstrates the children's engagement with these texts, because they are the final judge of the success of this project.

Rose: Figure 3 is a video we took around my home. Even though there was a funeral going on and the dogs were barking the children wanted to read the books.

Figure 3. Children reading Burarra Talking Books at home.

BIOGRAPHY

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