Transformed Practice in a Pedagogy of Multiliteracies

Kathy A. Mills

Queensland University of Technology & Christian Heritage College

Global communication is being transformed by new forms of meaning-making in a culturally diverse world. This article concerns these shifts, releasing key findings of a critical ethnography that investigated how a teacher implemented the multiliteracies pedagogy. The study documented a series of media-based lessons with a teacher's culturally and linguistically diverse Year 6 class (students ages 11–12 years). The reporting of this research is timely because teaching multiliteracies is a key feature of Australian educational policy initiatives and syllabus requirements. This article moves the field of literacy research forward by examining the intersection of pedagogy for multimodal textual practices and issues of equity. The important findings concern the differing degrees to which learners utilised the affordances of media for specific cultural purposes through a pedagogy of multiliteracies. Some students reproduced existing designs whereas others applied their knowledge of texts with substantial innovation and creativity. Comparisons are made between the learning demonstrated by students who were of the dominant Anglo-Australian, middle-class culture and by those who were not. Recommendations are given for applying the multiliteracies pedagogy to enable meaningful designing.

This article uncovers some of the complexities inherent in engaging culturally diverse students in designing multimodal texts, reporting a critical ethnography that investigated a teacher's enactment of the multiliteracies pedagogy. Multiliteracies, first conceived by the New London Group (1996), plays an important role in Australian educational policy initiatives and the multiliteracies pedagogy being implemented in schools (Anstey, 2002). It is tied to the changing

forms of communication and meaning-making through the pervasive influence of mass media, multimedia, and the Internet (New London Group, 1996). It is equally concerned with the global diversity of languages and cultures and the associated generation of diverse texts. This is partially a response to the movement of people and information across national borders through cultural globalisation. As society becomes increasingly globally connected, local diversity is similarly increasing (Cope & Kalantzis, 2000b; Fairclough, 2000; Lo Bianco, 2000).

The urgent need to integrate electronic environments with literacy teaching and learning was foregrounded throughout the 1990s in the works of Bigum (1997); Bigum and Green (1993); Burbules and Callister (1996); Green and Bigum (1993, 2003); Landow (1992); Landow and Delany (1991); Lankshear (1998); Lankshear, Gee, Knobel, and Searle (1997); Lankshear, Snyder, and Green (2000); Leu (1996); McKenna, Reinking, Labbo, and Kieffer (1999); Reinking (1997); Snyder (1997, 1999); Sproull and Kiesler (1991); and Strassman (1997). Now, in the 21st century, a significant body of international research has examined the intersection of multimodality and social context in very specific and nuanced ways (Gee, 2003; Hull & Nelson, 2005; Janks, 2004; Kress, Jewitt, Ogborn, & Tsatsarelis, 2001; Lankshear & Knobel, 2003a, 2003b; Mackey, 2003; Newfield & Stein, 2000). These theorists contend that digital technologies have decisively changed antiquated notions of language, curriculum, and literacy research. Texts are increasingly multimodal, that is, they combine visual, audio, linguistic, gestural, and spatial modes to convey meaning in a richer way. It is not merely that literacy tools have been altered; texts, language, and literacy are undergoing crucial transformations.

This article reports the significant findings of research that built upon these premises, contributing to new understandings about equity and the distribution of students' access to multimodal designing. The findings are reported in three sections. The first describes the quality of the students' Claymation movies to show how they had varied access to transformed designing. The second and third sections examine the process of designing, demonstrating how the multifaceted intersection of discourses and power constrained access to multiliteracies for certain students.

RESEARCH CONTEXT

The search was conducted in a Year 6 classroom in a state school located in a low socioeconomic area in Queensland, Australia. The student cohort represented 25 nationalities from 24 suburbs. Eight percent of the students in the school were Aboriginal and Torres Strait Islander. The principal was up to date

with current professional development opportunities and policy developments in multiliteracies and was committed to widening the repertoire of multiliteracies in the school.

TEACHER

A professional development coordinator identified potential teacher participants for this research through a multiliteracies scholarship project, and 4 teachers volunteered to be involved in a pilot study. The research was trialed for 4 weeks of continuous observation in the classroom of the selected teacher. The teacher participant had engaged in the Learning by Design project coordinated by Kalantzis and Cope (2005), members of the New London Group. This educator demonstrated specialist knowledge and expertise in new, digitally mediated textual practices and had gained 8 years of experience teaching literacy in multicultural contexts. The teacher was a catalyst for extending multiliteracies, disseminating these ideas at Australian educational conferences. The school principal supported the involvement of the teacher in the research and stated,

> She has special skills in multiliteracies and will often share with other teachers through professional dialogue. She conducted a brilliant unit of Claymation work with her Grade 2 class. This has now encouraged other teachers in the school to have a go.

The teacher was able to negotiate cultural and linguistic diversity among the students and their parents. For example, she used a Sudanese translator to communicate with the Sudanese parents of the English as second language (ESL) students about their progress.

STUDENTS

Seven ethnicities were represented in the class cohort: Anglo-Australian, Thai, Tongan, Maori, Torres Strait Islander, Aboriginal, and African- Sudanese. The students were varied by gender, socioeconomic status, ethnicity, monolingualism, multilingualism, ESL, computer ownership, and literacy achievement.

The decision to stream the class was made by the school administration. The classes were streamed using students' results in the standardised Queensland Year 5 Test in Aspects of Literacy and Numeracy (Queensland Studies Authority, 2002). The class comprised 23 of the lowest ability students. There were 15

males and 8 females, of whom 8 had achieved average literacy levels in the Year 5 test. The teacher expressed that the streaming had resulted in a problematic class that was difficult to manage. The English language abilities ranged from a non-English-speaking student who had recently arrived in Australia to students who could write a page of comprehensible narrative text in a half-hour period. During moviemaking, the 8 students with average literacy ability were grouped together and the 15 students with low ability were divided into all-male or mixed-gender groups.

RESEARCH DESIGN

The overall research design followed Carspecken's critical ethnography (Carspecken, 1996, 2001; Carspecken & Apple, 1992), which begins with the presuppositions of critical theory to investigate power in society (Glesne, 1999; Kincheloe & McLaren, 1994; Quantz, 1992). This strand of critical ethnography is situated in the epistemological tradition of Habermas (1981, 1987) and the sociology of Giddens (1984), drawing from pragmatist ideals rather than a structuralist or poststructuralist paradigm (Carspecken, 1996).

Stage 1 involved 18 days of monological or observational data collection over 10 weeks in the classroom. The interactions in the collaborative groups were recorded using multiple audiovisual and audio-recording devices, which were operating simultaneously. Stage 2 was the initial data analysis, involving verbatim transcription of the complete series of lesson observations (250 hr) and all dialogue with the teacher, and coding and analysing of the monological data (outlined later). Stage 3 involved the triangulation of observational with dialogical data. The dialogical data involved 45-min, semistructured interviews with the teacher, principal, and 4 students of Anglo-Australian, Sudanese, Aboriginal, and Tongan ethnicity. Cultural heterogeneity among the 4 students was sought to examine multiliteracies in a locally diverse context (New London Group, 2000). Other informal discussions were recorded with participants in the field. In Stage 4, the classroom data were interpreted in the light of macro-sociological theories and literature about multiliteracies.

DATA COLLECTION AND ANALYTIC TOOLS

Data collection included the use of continuous audio and audiovisual recording to replay speech and action after leaving the field. Field notes were used to record verbatim speech when audio-recording equipment was too obtrusive (e.g., in the staff room). Journalistic notes were used to record less detailed information. Cultural artefacts such as school policy documents, compact discs of the

students' movies, and photographs were collected. Data analytic tools included low- and high-inference coding. Low-level inferences were embedded in in vivo terms, that is, in the members' own vocabulary rather than the researcher's sociological terms. A list of raw codes and their reference details were compiled and later reorganised multiple times into progressively tighter hierarchical schemes. The analytic criteria emerged from the intersection of the data and existing sociocultural principles, namely, power, pedagogy, and discourse (Carspecken, 1996; Carspecken & Apple, 1992; Miles & Huberman, 1994).

DESCRIPTION OF LESSON SEQUENCE

The lessons applied the multiliteracies pedagogy—situated practice, overt instruction, critical framing, and transformed practice (New London Group, 1996). The objective was for learners to design a collaborative Claymation movie, an animation method in which static clay figurines are manipulated and digitally photographed to produce a sequence of lifelike movements. The process occurs by shooting a single frame, moving the object slightly, and then taking another photograph. The objects appear to move by themselves when the film runs continuously. Wallace and Gromit and Chicken Run are well-known Claymation films.

Moviemaking involved storyboarding, sculpting plasticine characters, designing three-dimensional movie sets, digital photography, and combining music or a digitally recorded script with the digital picture sequence. The students and teacher digitally edited the movies using Clip Movie software. The intended audience were the "buddies" in the preparatory year level (ages 4–5) and the parent community, and the movies were intended to communicate an educational message. See Table 1 for the schedule of observed lessons.

STUDENTS HAD VARIED ACCESS TO TRANSFORMED DESIGNING

Mark, Jack, Nick, and Matthew were a group of middle-class, Anglo-Australian students from the average-ability group. The boys' movie made intertextual references to an Australian sun-safe campaign. Using the campaign slogan "Slip, Slop, Slap," they transferred meanings from the television commercial to inform their preparatory "buddies" about the importance of sun protection. The first movie scene depicted a man on a beach wearing no sun protection; seeking to escape the sun's rays, he went for a swim. The scene then changed to a tropical underwater seascape, accompanied by mood music, where the

Claymation Movie-Making	Time
View Claymation Movies Teacher displays movies from other students and discusses the strengths and weaknesses.	1 hr
Critiquing Claymation Movies Teacher guides students to analyse critically analyse the claymation movie "Chicken Run".	1 hr
Storyboard Discuss plan for movie plot, scenes, characters. Allocate roles. Record ideas using picture frames and labels. List materials required. Create movie title.	2 1/4 hrs per group
Set Design Plan and create three-dimensional dioramas with backdrop, stage, and props using real objects and mixed media.	4 hrs
Character Design Create three-dimensional characters by sculpting plasticine on wooden figures or by using mixed media.	2 hrs
Rehearsing Rehearse movements and determine photo schedule. Set up filming area, matching set proportions to camera angles.	1 1/2 hrs
Filming Take 60-200 digital photos of the movie sets using a tripod while moving the characters and objects gradually. Control lighting and position of the tripod. Change expressions and gestures of characters. Take close ups & long shots.	2-4 hrs per group
Sound Write and rehearse script to match visual elements and/or select digital music files to match visual elements. Record script (speech) digitally using computer and microphone.	2 hrs
Digital Editing Use digital software to combine images and sound files, and to create special effects, subtitles, title pages, credits, and backgrounds.	1/2 hr per group
Presenting Movies to Community	3 hours

Table 1.0 Schedule of Observed Lessons

man explored the underwater world. The final scene returned to the beach, where an animated bottle of sunscreen offered sun protection to the man whose skin was red with sunburn. After squirting him with sunscreen, the voice-over warned the viewer to "Slip, Slop, Slap." Effective jazz music concluded the dialogue.

The movie conveyed intertextual messages—transferring knowledge and capabilities from one setting to another with imaginative hybridity

and originality. A remarkable quality of the movie was the effective combination of audio elements, which alternated digitally recorded speech and music in a sophisticated way. The following transcript demonstrates the way in which the boys were able to combine the audio and moving visual elements to communicate the message of the text effectively. The boys also required minimal teacher direction during situated practice.

Excerpt 1: Transcript 17

Three boys are seated at two computers (one is absent from school). One computer is for the boys to run the Claymation movie (with no audio track). The second computer is for the boys to run a prerecorded soundtrack concurrently with the movie. The aim is see how the audio elements—music and speech—will complement the visual elements of the movie. The boys find a track with jazz music that they have chosen and get ready to play the movie. The boys are ready to practise the script from the beginning.

Jack: All right, let's practise saying it. All right—[are] you ready? Talk
    Matthew! Get it [movie] to the start.

Matthew: "Gee—you look sunburned!" [Nick misses his cue] "Gee—
    you look sunburned."

Jack: Are you ready? Go Nick! [The movie has been restarted]
    Matthew: "Gee—you look sunburned."

Nick: "I'll feel better after a swim."
    Jack: [This time Jack does not start the audio track on cue.
    He restarts the movie]
    Matthew: "Gee—you look sunburned!"

Nick: "I'll feel better after a swim."
    Jack: [Misses sound cue] I'll add the sound first [Jack
    decides to concentrate on matching the music track with the
    visual elements on the second computer before rehearsing
    the script]. No wait—go back. We'll have to delay it until after
    the water [scene two].

Jack: [Plays the music to coordinate with the right moving images]
    Matthew: Yeah!

Jack: Ready set go! [Satisfied that the music and images match, the
    boys restart the movie to add the scripted speech]

Nick: "Gee—you look sunburned!" [Timed to match visual elements]
    Matthew: "I'll feel better after a swim."

Jack: [Plays music on cue to match the second underwater scene]
    Matthew: "Ow—that sunburn made me worse!"

Nick: "Some sunscreen will do you good."

The group had rehearsed the lines, played the music track, and returned to the script again precisely to match the sequence of images as the movie played.

The designing of this digital animation involved the creation of an original text that entailed the fusion of creative elements rather than purely reproduction. The design fulfilled the requirement of transformed practice to transfer meaning-making to work in a new social context (New London Group, 2000). The finished movie utilised a diversity of modes, characters, media, music, scripts, messages, plots, settings, backdrops, stage props, sound effects, spatial layouts, linguistic features, photography techniques, graphics, special digital effects, fonts, subtitles, and colours. The boys drew from a sophisticated combination of cultural resources to achieve a social purpose, communicating an educational message to their preparatory buddies and the parent community effectively.

In contrast, the group comprising low-ability students of diverse gender and ethnicity designed a movie entitled Crossing the Road. The designers were Anglo-Australians Sean, Rhonda, and David, and Paweni, who is Thai. The movie plot involved a parent and child crossing a road unsafely and climaxed with a car colliding with the child, who was rushed to hospital in an ambulance created from a tissue box. The teacher experienced significant frustration with these students, who were unable to work with minimal teacher direction:

> I'm not very happy with this group because you are nowhere near organised and ready to film [taps pen twice on table]. You haven't made your hospital set. You haven't made your mobile phone. You were going to put speech bubbles and hang it above their heads with the talking and have the music in the background. They're not organised either [frustrated tone]. Can you see why I'm cranky? You were left to independently do this, and you haven't managed to do it. And there are four of you! So your Claymation that you're going to film now, it's not going to be finished—is it? You're going to have to drop the hospital scene out of your movie. Is that going to make sense then? Not really.

These students chose a highly appropriate message for their preparatory buddies and the parent community. However, the audio, visual, gestural, and spatial design elements did not communicate the intended message effectively. During filming, the teacher controlled the movements of the plasticine figures between taking each photo. This was because the students were unable to follow directions and work within the time limits. The final movie did not demonstrate that they had engaged successfully in transformed designing as full-fledged members of a community of practice (Kalantzis & Cope, 2005). Ultimately, students of the dominant, Anglo-Australian, middle-class culture were enabled during the enactment of transformed practice, whereas those who were ethnically and socioeconomically marginalised were constrained.

DISCOURSES INFLUENCED ACCESS TO

TRANSFORMED DESIGNING

Four students of mixed ethnicity designed the movie The Healthy Picnic, a procedural text involving two scenes. The first scene was a distance view of a park filled with flora, insects, people, and a picnic. The second scene showed the assembly of a salad sandwich using close-up photography.

During the process of designing the movie, it was observed that the group members made unequal contributions. Julie, who was Anglo-Australian, dominated the moviemaking from the conception of the ideas to filming and digital editing. In contrast, Ted, who was Indigenous Australian, assumed repetitive and unskilled roles in the design. For example, during set design, his peers assigned him the role of making blades of plasticine grass to cover the foreground, whereas the others engaged in the creative aspects of designing such as representing playground equipment and unique characters. While Julie and Darles filmed the movie, which involved complex spatial, visual, gestural, and digital designing, Ted had the role of tally-marking the number of photos taken. During the design of audio elements, Ted rocked back and forth on his chair with his head down while the others negotiated the sound files to complement the moving images. Later, when asked by the researcher if there was anything particularly difficult about making Claymation movies at school, Ted responded,

> Ah, to look for the songs [audio]. 'Cause they had like, 'cause Julie and Darles just like, picked the stuff what they liked 'cause when I start tried to speak, Darles just butts in and she goes, "Oh, yeah, um. Why don't we do this instead?" And I never get to speak.

It was evident on many such occasions that students who were not of the dominant, middle-class, Anglo-Australian culture experienced greater difficulty gaining creative roles in transformed designing than their dominant counterparts. The transition from learners' lifeworlds to Claymation designing caused a difficult dialogue between the culture of the institution and the subjectively lived experiences and discourses of some students.

This finding was also observed among the students who designed Crossing the Road. The Thai girl, Paweni, had been in Australia for 1 year; she spoke Thai at home to her mother and English at school. The following transcript is a discussion of the movie plot, during which Paweni was present but did not speak.

Excerpt 2: Transcript 8

Rhonda: Ah, title of the Claymation? [Reading from a worksheet]

David: Do you want to um, do um, "Look out, look out, there's children about"?

Rhonda: You mean, "Watch out, watch out—there's danger about"?

David: "Look out, look out—there's children about", like

Rhonda: 'Cause that's really good for our buddies.

Paweni did not engage productively in the moviemaking because she was unable to draw from her existing semiotic resources for meaning-making. For example, during storyboard designing, Paweni's group was asked to explain their movie plans to the teacher.

Excerpt 3: Transcript 6

Sean: [Pointing to pictures in the storyboard] "Look right, Look left, look right." And then the car's there, and they walk across, but they saw no car there, and the car was there. The car had just turned out and came out.

Teacher: Sounds to me like you two [Sean and David] are doing a lot of the thinking. What's Paweni done today?

Sean: She's

David: She's just

Rhonda: She's trying to

Teacher: Okay. Paweni, can you tell me what you're doing today? What's your job?

Paweni: Mum.

Teacher: You're going to be the mum? [character] Children: Yeah.

Teacher: And are any of these your ideas today? Have you got any suggestions? Have you thought about what we should use on the set? Are you going to have trees? Are you going to have hills?

Paweni: [Silence]

Sean: That's what she's thinking.

David: Yeah.

Teacher: Can you make sure that Paweni has some suggestions?

The teacher encouraged David and Sean for their successful contribution to the storyboard while contrasting this with Paweni's silence. The children spoke on Paweni's behalf, making incomplete arguments that focused on her effort (lines 239–241). These peers identified with Paweni's dissimilar lifeworld,

language, and cultural experiences. The teacher asked Paweni five questions successively (line 246), requiring Paweni to substantiate her contribution to the storyboard. Note that Paweni did not speak more than two words consecutively during the lesson observations, and the words uttered were often common nouns and verbs.

Paweni did not have access to the cultural and linguistic resources to answer the series of questions (line 247), thus her proficiency with a dominant discourse was put to the test. The door was open for competent users of the dominant discourses but locked for the nonnative—the student who was new to the dominant discourses and who could not demonstrate fluency on this occurrence (Gee, 1996). A conflict existed between the discourses of the classroom and Paweni's Thai culture, identity, and discourses, prohibiting her from engaging in transformed designing.

It was frequently noted during the enactment of the multiliteracies pedagogy that not all learners had access to all meanings. On the contrary, meanings were distributed along intersecting lines of socioeconomic status, ethnicity, and degree of acquaintance with the dominant discourses (Kress, 1993). Learners who were culturally and socioeconomically dominant gained greater access to multiliteracies than their marginalised counterparts because they were familiar with discourses of the Western educational system. The translation of the multi- literacies pedagogy to a Year 6 classroom was implicated in the reproduction of social stratification because certain students were unable to draw from their cultural resources (Fairclough, 1989). This raises important issues for teachers who wish to avoid these pitfalls and seek to implement the multiliteracies pedagogy as effectively as its originators intended.

POWER INFLUENCED ACCESS TO TRANSFORMED DESIGNING

Jared, Simon, and Warren were Anglo-Australians from low socioeconomic backgrounds. They drew upon one of the teacher's suggestions: "We've done natural disasters last term—a tornado or a cyclone, an earthquake. One of those might be something you're interested in." A significant degree of explicit scaffolding and content knowledge was required for the boys to design the story- board for their movie, entitled Breaking the News, a television news report about a series of natural disasters. The following transcript highlights some of the problems the boys experienced when designing the storyboard.

Excerpt 4: Transcript 8

> Simon: What we should do, what we should do is just write the
> script first and then go back and draw all the pictures,
> and…

Jared: Yeah, that's a good idea but, how we gonna, but what

      happens if the person is too big for the new script, and we

      don't know how to draw it?

Warren: Well, maybe we could draw it little.

Teacher: Come on boys—why has someone not got a pencil, and

      why are you not actually writing your script! Don't waste

      any more time! You already wasted one day when I

      wasn't here.

Jared: We should um [pause] we should um, ah your turn, Simon.

Simon: We should start writing the script.

Jared: Okay.

Simon: I'm gonna write first [softly] I'm gonna write first? [loudly]

Warren: Are you?

Jared: What? Ah hmmm. Anyone got a ruler? I need a ruler.

Simon: I'll get a ruler.

Warren: So what are we gonna do first? [No answer from Jared.

      Long silence as they wait for Simon to return]

Simon: Okay. I got the ruler. Warren: What are we gonna do first?

Simon: Write the script.

While the class worked independently of the teacher, she committed several hours to assisting the boys in constructing a script. Despite the teacher's persistence in scaffolding the boys' script, the boys produced little work. Power relations between the three boys began to escalate into swearing and physical fights. Consequently, the teacher established the sanction with the class that groups which did not meet the timeline for completion of the movie sets would be disqualified from filming. Additionally, any student who transgressed the school rules on two occasions would be excluded from further moviemaking.

A notice was soon displayed visibly on a wall of the classroom, differentiating the recipients of the sanctions from those who were not (see Figure 1). Simon, Warren, and Jared were listed under both categories of exclusion—breaking of school rules and having incomplete movie sets. Two other boys—Joshua and Jed—were also excluded for breaking the school rules. The five boys prohibited from filming were Anglo-Australians from low socioeconomic backgrounds. This ultimately barred the students from engaging in multimodal designing. The notice applied exclusionary techniques to differentiate the children by three behavioural categories, making a dominant classroom discourse legitimate and permanent.

FIGURE 1 Poster of sanctions

The teacher reinforced the enactment of the sanctions through a verbal announcement to the class.

The only [whole] group that won't be doing their Claymation [movies] is the Breaking the News group because they are nowhere near finished their set. So they are now out of the race. Joshua and Jed also have more than two crosses, so they don't get to film as well. So Jed's group, you still film, but Jed does not. Okay.

These sanctions effectively excluded five economically marginalised boys from further engagement in multiliteracies. In the teacher's words, they were "now out of the race." Those most resistant to the dominant, middle-class discourses of schooling were denied the opportunity to engage in transformed designing. The teacher explained that by withdrawing the privilege of moviemaking from these boys, they would engage more productively in multimodal designing in forthcoming units, an unintended outcome was that power operated as dissimilation; that is, students were ranked in a similar way to patterns of marginalisation in the wider society (McLaren, 1994).

During the following weeks, the implications of the sanctions became apparent. The class continued in digital moviemaking while the five boys completed story writing. The boys were excluded from 2 hours of movie set designing involving three-dimensional visual and spatial modes, 2 hours of audio designing, 2 hours of digital filming, and 1 hour of digital editing using the Clip Movie software. Monomodal literacies, that is, writing words with a pencil and paper, became a sanction for violating school rules. This was substituted for Claymation moviemaking, which involved designing digital texts using many modes, including audio, visual, spatial, linguistics, and gestural elements. Through configurations of power, the five boys were prohibited from applying their knowledge during transformed practice.

POWER RELATIONS BETWEEN THE RESEARCHER AND
TEACHER PARTICIPANT

It is important for critical researchers to seek to maintain equal power relations between themselves and the research participants. Lather (1991) stresses the importance of researcher self-reflexivity to examine one's contribution to dominance in spite of our "liberatory intentions" (p. 150). A genuinely interdependent relationship was sought between researcher and teacher, from the first meeting to the recursive dialogue about the findings after leaving the field. Although the ideal of democratic research was upheld, one cannot claim that a truly equal generation of knowledge was fully attained. In the reporting of the research, the interpretation of the researcher is foregrounded whereas the perspectives of the teacher are backgrounded. There can be no "absolute parity of influence" (Heron & Reason, 2001, p. 185) between the researcher and co-opted participants.

SUMMARY OF FINDINGS

Students' access to multiliteracies was influenced by the complex intersection of pedagogy, power, and discourses in the classroom (see Table 2).

First, transformed designing of multimodal texts engaged the varied lifeworlds of students to varying degrees. Students' Claymation movies ranged from discernable reproduction to substantial innovation (Cope, 2000). More pointedly, transformation occurred naturally for culturally and socioeconomically dominant students in an immersion environment in which collaborative designing involved

TABLE 2
Summary of Classroom Findings

Pedagogies	• Transformed practices engaged with the lifewords of students to varying degrees of inclusion, from reproduction to innovation.
	• Students least able to access new designs of meaning were students from ethnically and socio-economically marginalised groups
Power	• Use of coercive power excluded 5 boys from digital and multimodal designing
	• Monomodal literacies became a sanction to replace digitally-mediated, multimodal designing
	• Students who were excluded were from low-socioeconomic backgrounds
Discourses	• Ethnically marginalised students were unable to draw from their cultural resources
	• Secondary discourses of the classroom were more accessible to Anglo-Australians
	• Ethnically marginalised students were unfamiliar with rules for collaborative designing

minimal teacher direction. Conversely, the low-ability groups designed texts that more closely reproduced existing meanings and relied on teacher or peer direction. Ethnically and socioeconomically marginalised students, such as Paweni, Ted, and the boys in the Breaking News group, had a more difficult journey of learning because of the extent of mismatch between their experiences and the languages of the classroom (Cope & Kalantzis, 2000a; New London Group, 2000). For these marginalised students, the transition from their lifeworlds to Claymation moviemaking required a multifaceted negotiation between the discourses of the classroom and their experiences (Cope, 2000; Luke, Comber, & Grant, 2003).

Second, ethnically marginalised students were unable to draw from their repertoire of cultural resources. The students' primary discourses were constrained in the classroom, despite the teacher's discursive knowledge of the need for cultural inclusiveness. For example, the Indigenous and Thai students were least familiar with the tacit expectations for collaborative learning. These students only contributed to multimodal designing when the teacher or other students communicated the norms to them personally and overtly. In contrast, the discourses of the classroom were more accessible to students from the dominant, Anglo-Australian culture because they were compatible with their experiences (Gallas, Anton-Oldenburg, Ballenger, & Beseler, 1996).

Third, coercive power had a considerable influence on students' access to multimodal designing. The teacher's use of coercive power combined with the students' resistance to the school rules functioned as a form of domination, prohibiting five economically marginalised boys from digital designing (Carspecken, 1996; McLaren, 1993). Monomodal literacies, such as story writing, became the sanction for rule-breaking. The use of coercive power implicitly maintained some students' existing levels of access to multiliteracies in a marginalising way. The outcome of the use of coercive power did not occur by chance but was linked to the power and status of the students in the context of the dominant culture (Luke et al., 2003).

SIGNIFICANCE OF THE STUDY

The significance of this study concerns the New London Group's (2000, p. 18) aim for a pedagogy of multiliteracies to open "possibilities for greater access." The research uncovered some of the multifarious ways in which pedagogy, discourse, and power operate to prevent or permit certain students from accessing multiliteracies. In a culturally diverse classroom such as the one in this study, where there were students from Anglo-Australian, Sudanese, Indigenous, Torres Strait Islander, Tongan, Maori, and Thai descent, the multiliteracies pedagogy did not truly enable education to be "genuinely fair in the distribution of

opportunity" (New London Group, 2000, p. 125). Neither did it "provide access without children having to erase or leave behind different subjectivities" (New London Group, 2000, p. 18).

The study does not challenge the validity of the multiliteracies theory, nor is its aim to be fair and even-handed (Cope & Kalantzis, 2000b). However, it highlights the difficulty for even an experienced teacher to translate the ideals of the multiliteracies theory to classroom practice. More support is needed for teachers to negotiate the varied lifeworld experiences of students in order to provide equitable access to multimodal designing for all. A pedagogy of multiliteracies is not a universal remedy for the problem of equity in education. What teachers need are effective support structures to realise the New London Group's theory in real classrooms.

RECOMMENDATIONS

A pivotal recommendation for the successful enactment of transformed practice is that educators evaluate the inclusiveness of dominant discourses (Gee, 1996). An effective pedagogy of multiliteracies requires that teachers are cognisant of their culture. Ultimately, selective traditions that are implicit in the discourses and operations of power should be transformed in the interests of marginalised groups (Apple, 1986; Freire & Macedo, 1987; Giroux, 1988; Lankshear & Lawler, 1987; Luke, 1988; McLaren, 1989). The immediacy of cultural and linguistic diversity today necessitates the transformation of classroom languages and practices (New London Group, 1996). Globally, the demographic make-up of schools is increasingly diverse, calling for a revolution of discourses in educational institutions to enable access to multiliteracies for all students. Multimodal designing should allow students to transform and vary their discourses, construct new ones, and participate in socially just ways of learning (Gee, 1996, pp. 190–191).

A second recommendation is that coercive power should not be used to order the social space because it may prohibit certain students from accessing multiliteracies (Carspecken, 1996). More specifically, distributing monomodal literacies as a sanction for resistance to the school rules is not arbitrary or inconsequential; rather, it mirrors the distribution of power in the wider society, functioning as a regulator of social rewards in the interests of dominant groups (Luke et al., 2003). Providing all students with access to multiliteracies requires that educators draw upon noncoercive forms of power. For example, teachers can negotiate contractual agreements that offer short-term and cumulative incentives for students to self-monitor their learning behaviour. The key is to ensure that certain learners are not prohibited from full participation in multimodal designing. In this way, the enactment of a pedagogy of multiliteracies can function within the normative cultural milieu of schooling in a manner intended

by its proponents—as a system of inclusion rather than exclusion (New London Group, 2000). The challenge for educators is to create places of learning where students' individual worlds of experience can burgeon through transformed designing (Cazden, 1988). The goal is to open possibilities for greater access and, in turn, provide "access to symbolic capital" and answers to learners' needs in a time of change (New London Group, 1996, p. 69).

ACKNOWLEDGMENTS

The author gives special acknowledgment to Dr Annah Healy and Associate Professor William Corcoran, who supervised the PhD thesis from which the data in this article was generated.

ENDNOTES

This investigation was granted ethical clearance by the University Human Research Ethics Committee at the Queensland University of Technology from May 27, 2003, to January 31, 2006.

All names in this article have been changed to protect the identities of the research participants.

Upon reflection, the teacher stated that she saw an improvement in the boys' behaviour during subsequent multimodal projects that were not observed by the researcher.

References

Anstey, M. (2002). *Literate futures: Reading*. Coorparoo DC, Queensland, Australia: Access Ed.

Apple, M. (1986). *Teachers and texts: A political economy of class and gender relations in education*. New York: Routledge.

Bigum, C. (1997). Teachers and computers: In control or being controlled? *Australian Journal of Education, 41*(3), 247–261.

Bigum, C., & Green, B. (1993). Technologising literacy: Or, interrupting the dream of reason. In A. Luke & P. Gilbert (Eds.), *Literacy in context: Australian perspectives and issues* (pp. 4–28). St Leonards, New South Wales, Australia: Allen and Unwin.

Burbules, N., & Callister, T. (1996). Knowledge at the crossroads: Some alternative futures of hypertext learning environments. *Educational Theory, 46*, 23–50.

Carspecken, P. (1996). *Critical ethnography in educational research: A theoretical and practical guide*. New York: Routledge.

Carspecken, P. (2001). Critical ethnographies from Houston: Distinctive features and directions. In P. Carspecken &

G. Walford (Eds.), *Critical ethnography and education* (Vol. 5, pp. 1–26). Oxford, UK: Elsevier Science.

Carspecken, P., & Apple, M. (1992). Critical qualitative research: Theory, methodology, and practice. In M. LeCompte, W. Millroy, & J. Preissle (Eds.), *The handbook of qualitative research in education* (pp. 507–553). San Diego, CA: Academic Press.

Cazden, C. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.

Cope, B. (2000). Designs for social futures. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 203–234). South Yarra, Victoria, Australia: Macmillan.

Cope, B., & Kalantzis, M. (2000a). Introduction: Multiliteracies: The beginnings of an idea. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 3–8). South Yarra, Victoria, Australia: MacMillan.

Cope, B., & Kalantzis, M. (2000b). *Multiliteracies: Literacy learning and the design of social futures*. South Yarra, Victoria, Australia: Macmillan.

Fairclough, N. (1989). *Language and power*. London: Longman.

Fairclough, N. (2000). Multiliteracies and language: Orders of discourse and intertextuality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 162–181). South Yarra, Victoria, Australia: Macmillan.

Freire, P., & Macedo, D. (1987). *Literacy: Reading the word and the world*. Hadley, MA: Bergin and Garvey.

Gallas, K., Anton-Oldenburg, M., Ballenger, C., & Beseler, C. (1996). Focus on research: Talking the talk and walking the walk: Researching oral language in the classroom. *Language Arts, 73*, 608.

Gee, J. (1996). *Social linguistics and literacies: Ideology in discourses* (2nd ed.). New York: Routledge.

Gee, J. (2003). *What video games have to teach us about learning and literacy*. New York: PalgraveMacmillan.

Giddens, A. (1984). *The constitution of society*. Cambridge, UK: Polity Press.

Giroux, H. (1988). *Schooling and the struggle for public life: Critical pedagogy in the modern age*. Minneapolis: University of Minnesota Press.

Glesne, C. (1999). *Becoming qualitative researchers: An introduction* (2nd ed.). New York: Longman.

Green, B., & Bigum, C. (1993). Aliens in the classroom. *Australian Journal of Education, 37*, 119–141.

Green, B., & Bigum, C. (2003). Literacy education and the new technologies: Hypermedia or media hype. In G. Bull & M. Anstey (Eds.), *The literacy lexicon* (2nd ed., pp. 209–224). Frenchs Forest, New South Wales, Australia: Pearson Education Australia.

Habermas, J. (1981). *The theory of communicative action: Reason and the rationalisation of society* (Vol. 1). Boston, MA: Beacon Press.

Habermas, J. (1987). *The theory of communicative action: Lifeworld and system: A critique of functionalist reason* (Vol. 2). Boston: Beacon Press.

Heron, J., & Reason, P. (2001). The practice of co-operative inquiry: Research 'with' rather than 'on' people. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Participative inquiry and practice* (pp. 179–188). Thousand Oaks, CA: Sage.

Hull, G., & Nelson, M. (2005). Locating the semiotic power of multimodality. *Written Communication, 22*, 224–261.

Janks, H. (2004). The access paradox. *English in Australia 139*(1), 33–42.

Kalantzis, M., & Cope, B. (Eds.). (2005). *Learning by design*. Melbourne, Victoria, Australia: VSIC and Common Ground.

Kincheloe, J., & McLaren, P. (1994). Rethinking critical theory and qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 138–157). New York: Sage.

Kress, G. (1993). Communication and culture: An introduction. In G. Kress (Ed.), *Communication and culture* (pp. 3–19). Kensington, New South Wales, Australia: New South Wales University Press.

Kress, G., Jewitt, C., Ogborn, J., & Tsatsarelis, C. (2001). *Multimodal teaching and learning: The rhetorics of the science classroom*. London: Continuum.

Landow, G. (1992). *Hypertext: The convergence of contemporary critical theory and technology*. Baltimore: Johns Hopkins University Press.

Landow, G., & Delany, P. (1991). Hypertext, hypermedia and literary studies: The state of the art. In P. Delany & G. Landow (Eds.), *Hypermedia and literary studies* (pp. 3–50). London: MIT Press.

Lankshear, C. (1998). Meanings of literacy in contemporary educational reform proposals. *Educational Theory, 48*, 351–372.

Lankshear, C., Gee, J., Knobel, M., & Searle, C. (1997). *Changing literacies*. Philadephia: Open University Press.

Lankshear, C., & Knobel, M. (2003a). Literacy, culture and technology. In G. Bull & M. Anstey (Eds.), *The literacy lexicon* (pp. 67–79). Frenchs Forest, New South Wales, Australia: Pearson Education Australia.

Lankshear, C., & Knobel, M. (2003b). *New literacies: Changing knowledge and classroom learning*. Philadelphia: Open University Press.

Lankshear, C., & Lawler, M. (1987). *Literacy, schooling and revolution*. London: Falmer.

Lankshear, C., Snyder, I., & Green, B. (2000). *Teachers and techno-literacy: Managing literacy, technology and learning in schools.* St. Leonards, New South Wales, Australia: Allen & Unwin.

Lather, P. (1991). *Getting smart: Feminist research and pedagogy within the postmodern*. New York: Routledge.

Leu, D. (1996). Sarah's secret: Social aspects of literacy and learning in a digital information age. *The Reading Teacher, 50*, 162–165.

Lo Bianco, J. (2000). Multiliteracies and multilingualism. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 92–105). South Yarra, Victoria, Australia: Macmillan.

Luke, A. (1988). *Literacy, textbooks and ideology*. London: Falmer Press.

Luke, A., Comber, B., & Grant, H. (2003). Critical literacies and cultural studies In G. Bull & M. Anstey (Eds.), *The literacy lexicon* (2nd ed., pp. 15–35). Frenchs Forest, New South Wales, Australia: Pearson Education Australia.

Mackey, M. (2003). Television and the teenage literate: Discourses of "Felicity". *College English, 65*, 389–410.

McKenna, M., Reinking, D., Labbo, L., & Kieffer, R. (1999). The electronic transformation of literacy and its implications for the struggling reader. *Reading and Writing Quarterly, 15,* 111–126.

McLaren, P. (1989). *Life in schools: An introduction to critical pedagogy in the foundations of education*. New York: Longman.

McLaren, P. (1993). *Schooling as ritual performance: Towards a political economy of educational symbols and gestures* (2nd ed.). London: Routledge.

McLaren, P. (1994). *Life in schools: An introduction to critical pedagogy in the foundations of education* (2nd ed.). White Plains, NY: Longman.

Miles, M., & Huberman, M. (1994). *Qualitative data analysis*. London: Sage.

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

New London Group. (2000). A pedagogy of multiliteracies: Designing social futures. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 9–38). South Yarra, Victoria, Australia: Macmillan.

Newfield, D., & Stein, P. (2000). The multiliteracies project: South African teachers respond. In B. Cope & M. Kalatzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 292–310). South Yarra, Victoria, Australia: Macmillan.

Quantz, R. (1992). On critical ethnography (with some postmodern considerations). In M. LeCompte, W. Millroy & W. Preissle (Eds.), *The handbook of qualitative research in education* (pp. 447–505). San Diego, CA: Academic Press.

Queensland Studies Authority. (2002). *Queensland Year 5 test in aspects of literacy and numeracy*. Brisbane, Australia: Queensland Government.

Reinking, D. (1997). Me and my hypertext: A multiple digression analysis of technology and literacy. *The Reading Teacher, 50*, 626–643.

Snyder, I. (1997). *Page to screen: Taking literacy into the electronic era*. London: Routledge.

Snyder, I. (1999). Packaging literacy, new technologies and 'enhanced' learning. *Australian Journal of Education, 43*, 285–299.

Sproull, L., & Kiesler, S. (1991). *Connections: New ways of working in the networked organisation*. Cambridge, MA: MIT Press.

Strassman, P. (1997). Information systems and literacy. In G. Hawisher & C. Selfe (Eds.), *Literacy, technology and society: Confronting the issues* (pp. 134–141). Upper Saddle River, NJ: Prentice Hall.