Teaching About Sound for Multimodal Literacy

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Introduction and Background

The emergence of digital technologies has changed the design of texts and our literate practices so that we now interpret and construct texts which have written, visual, audio and spatial dimensions for making meaning, that is, multimodal texts. Prominent researchers (Kress 2000; The New London Group 2000) argued that literacy should be redefined as multiliteracies to acknowledge the multiplicity of communication channels and media, and the cultural and linguistic diversity that impact on textual meanings. Current definitions of multimodal literacy (Jewitt & Kress 2003) which acknowledge all modes (e.g. image, text, sound, movement) as significant for communication, accordingly require explicit teaching that provides all students with resources for the interpretation and construction of multimodal texts in classrooms. This study contributes to knowledge about the nature and function of the meaning-making resources of sound, which is required to realise multimodal literacy.

The parameters of school literacies are changing in response to new times, new texts and new literate practices (Unsworth 2001). Students in primary and secondary schools are increasingly engaging with digital multimodal texts such as videos, CDROMs, television and film excerpts, internet sites, and DVDs that support differentiated curriculum content. Teachers and researchers recognise that students are easily engaged with digital texts, both in and out-of school, and especially with community texts that relate to popular culture (Comber & Kamler 2005; Luke et al. 2003). In Australia, state syllabus responses to new times and a new multimodal literacy, however, have been variable.

Syllabus imperatives in NSW require that students learn about how multimodal texts are constructed, and how to construct their own texts using multimedia, so that they can become designers of text, both now and in the future. While the NSW Board of Studies (BOS) *English K-6 Syllabus (1998)* outcomes mainly focus on spoken and written texts, attention is given to:

- learning to comprehend images, advertising, television programs, videos, CDROMs, multimedia; to identify symbolic use of music, sound effects and voice style

- learning to construct multimodal texts incorporating text, graphics, sound, animation.

As the NSW BOS *English K-6 Syllabus* (1998) is constructed to reflect a socio-cultural view of language (Halliday 1978), teachers are provided with a theoretical framework to shape teaching about language, and a

metalanguage for teaching about language; in this case, predominantly traditional English grammar. However, no commensurate theoretical framework or metalanguage is identified in this syllabus, to support explicit teaching about visual or audio features of multimodal texts, even though students are required to learn to interpret and construct them.

The NSW BOS *7-10 English Syllabus (2001)* demonstrates an increased emphasis on developing students' skills in composing and responding to texts created in and through different information and communication technologies, and to understand the effect of technology on meaning. In particular, Outcomes 1, 2 and 3 in each of Stage 4 and Stage 5 refer to students (PG refers to Outcomes 2 6 7):

- knowing conventions of generic definitions of literary, film, television and other multimedia; using features of information and communication technologies to compose a range of interactive multimedia texts for television, the internet, radio in a range of modes and media; the forms, features and structures of interactive multimedia texts and websites, including layout and design, and interaction

- learning to compose complex multimodal texts using different technologies such as film, CDROM, websites and television; technical features of audio and visual recording, of camera, design and sound; weblinks, importing data from the internet, and manipulating images.

Clearly the BOS NSW *7-10 English Syllabus* (2001) has an interest in developing multiliteracies, although it does not explicitly state this. No comprehensive theoretical approach impacts visibly on this syllabus or its pedagogic design, nor offers practical frameworks and metalanguages for explicit teaching about the visual or auditory modes that are used in multimodal texts, that students are expected to use in text comprehension and composition.

The Queensland Studies Authority (QSA) *Y1-10 English Syllabus* (2005), currently being trialled, visibly identifies as a syllabus for teaching multiliteracies. A sociocultural-critical model of communications informs the construction of this contemporary syllabus, and is combined with a cultural/operational/critical framework to organise the syllabus content Years 1-10. Three syllabus substrands explicitly point out that students are to be reading and viewing, writing and shaping a range of written and multimodal texts, and that those texts are to be constructed using linguistic, visual, gestural, spatial and audio textual resources. Further, the operational substrand of the syllabus states that students should learn about the technologies that allow inclusion of such textual resources into multimodal texts that they respond to or compose, such as films, television advertisements, videos, webpages, powerpoint presentations, newspaper reports, and interactive narratives. Specifically for example, Levels 3, 4 and 5 outcomes require that students have knowledge of textual resources such as:

- visual resources (shot type, sizes of frame, camera distance, movements and angles, vectors, colour)

- gestural resources (facial expressions, gestures and movements)

- audio resources (sound effects, music); joining sequences, techniques for linking shots and scenes, ways to construct cohesive film texts.

Potentially the theoretical model and the framing of content could be helpful in planning teaching about multimodal texts, yet minimal support is offered for explicit teaching about non-linguistic modes. Moreover, a metalanguage to support explicit teaching about non-linguistic resources is not available.

The above examination of three state English syllabuses describes variable educational responses to the changing social imperatives of new times. The BOS NSW *7-10 English Syllabus* (2001) and the QSA *Y1-10 English Syllabus* (2005) demonstrate an educational shift in syllabus design and focus, making a significant response to the social call for teaching multimodal literacy, reflecting global communication contexts. In line with traditional notions about literacy however, the BOS NSW *English K-6 Syllabus* (1998) remains largely a syllabus which maximises attention to linguistic features of texts, and minimises learning about multimodal texts. Future primary and secondary syllabuses in Australia will need to be oriented towards teaching multimodal literacy, so that students learn critical understandings about the meaning-making resources of multiple modes, and the skills to interpret and compose multimodal texts in digital formats, enabling them to participate in the design of future texts, and the design of their social futures.

Rationale for the Research

Along with social imperatives for students to control multimodal texts comes the educational imperative that teachers access professional learning for effective teaching of multimodal literacy. To plan for systematic and explicit teaching about texts and technologies of today, teachers need comprehensive practical frameworks and metalanguages to plan pedagogical practices for teaching multiliteracies (Unsworth 2001). Historically and currently, teachers have access to comprehensive theories, frameworks and metalanguages to support teaching about linguistic features of texts (Halliday 1978, 1985), via syllabus and support documents. Halliday's three dimensional, socio-cultural model of meaning-making has been adapted by Kress and van Leeuwen (1996) to provide a framework and a grammar for classroom teaching and learning about visual images. While syllabuses have made scant reference to the tools provided by Kress and van Leeuwen, teachers are gradually taking up their framework and metalanguage for explicit teaching about visual images, enabling them to become teachers of visual literacy.

Despite syllabus demands, teachers do not have access to frameworks, metalanguages or tools for teaching explicitly about how meanings are made in multimodal texts by using modes other than language or visual images; for example, sound and movement. A review of current research literature highlights the dilemma: there is a paucity of research literature providing a cohesive theoretical framework for describing and

explaining the textual resources of sound, or the role of sound in multimodal texts, for educational purposes. Indeed, any metalanguage for talking and teaching about the resources of sound is presented as tentative (McDonald 2003; van Leeuwen 1999), and tools to analyse the role of sound for making meaning together with other modes, are just emerging (Baldry & Thibault 2006; Jewitt & Kress 2003; Thibault 2000; van Leeuwen 2005).

Contemporary digital texts such as television advertisements, film trailers, videos and television programs increasingly privilege sound features (e.g. voiceover, music, sound effects) to make meanings. Indeed digital texts that persuade, such as television advertisements and film trailers, particularly feature sound to build a convincing message about a product, for consumers. Sound now takes a significant place alongside language and visual images in the digital texts of our textual landscape, and will be a crucial part of future texts that students must learn to interpret and construct. Teachers therefore need to be provided with theoretical and pedagogical tools which support them in teaching about sound, for addressing syllabus outcomes.

Nevertheless, fragments of models, frameworks and vocabularies are emerging from research relating to multimodality and to the area of sound, which are significant in explicating pedagogies for multimodal literacy, and the investigative processes of this study in particular. Successive theoretical models of multimodality have maintained that multimodal texts refer to sociocultural contexts (Halliday 1978, 1985). Researchers suggest that the process of meaning- making in multimodal texts can be conceptualised as semiosis, and that modal resources (such as those in sound) be considered as semiotic resources (Halliday 1985; Jewitt & Kress 2003; Kress & van Leeuwen 1996; McDonald 2003; O'Halloran 2004). Semiosis can be understood as the process of making meaning using semiotic resources. Semiotic resources from various modes of communication can be understood as 'signs' that have coded meanings: words are signs that make meaning in the linguistic mode; colour and angle are signs which have meaning in visual images; volume may be considered as a sign that has meaning in the audio mode. In multimodal texts, semiotic resources can be used to represent discursive meanings and to structure recognisable text genres (Baldry & Thibault 2006; van Leeuwen 1999, 2005). Such perspectives can be used to inform the theoretical basis of this investigation: social semiotics is a credible metatheory that can be applied to the field of multimodality, to explore and describe the meaning-making resources of sound.

In line with research identifying 'grammars' to describe the semiotic resources of language and image, an attempt to describe the common meaning-making resources of sound has been made by van Leeuwen (1999), for example volume, timing, pitch and melody. Research which reports on multimodal discourse analysis and learning has demonstrated concepts and tools for describing the way semiotic resources make meaning within a mode (e.g. backgrounding, foregrounding, voices, dialogic relation, salience), across

modes (e.g. cluster, integration, compression) and across a whole multimodal text (e.g. scalar levels of phase and macrophase, part-whole relations). Such vocabularies, concepts and tools have implications for providing a descriptive account of sound semiosis, and for articulating a metalanguage which can support multimodal literacy.

To be literate in a multimodal world, students need to learn about the meaning-making potentials of sound, and how the semiotic resources of sound can be engaged to design multimodal texts. To address syllabus demands, teachers need frameworks and metalanguages to understand and explicitly teach about the semiotic resources of sound and sound semiosis in multimodal texts.

Following a multimodal discourse analysis, this study aims to provide a descriptive account of the semiotic resources of sound that invoke/refer to multiple discourses in film texts, contribute to the genre of film texts, and provide degrees of reality in film texts. In doing so, this study expects to articulate a metalanguage for talking and teaching about the area of sound.   A range of web-based film texts will be investigated to explore the semiotic resources of sound, and to exemplify how sounds build meanings in combination with other modes and media, in multimodal texts. It is anticipated that this study into sound as a semiotic system which makes meanings in multimodal texts, will offer teachers new ways of conceptualising the teaching of a multimodal literacy. The outcomes of the research, therefore, include:

- a description of the semiotic resources of sound and how sound interacts with other semiotic resources, to make meaning in film texts

- the articulation of a metalanguage which describes and accounts for the meaning-making resources of sound.

Research Aims and Research Questions

The overall aim of this research is to provide a descriptive semiotic account of multimodal meaning-making resources in film texts, and to explore the implications of this account for multimodal literacy.

The materials to be investigated will be a range of web-based film texts, eg television advertisements, film trailers, flash animations, how-to instructional videos, which feature soundtracks and are suitable for school use.

Specific objectives are:

- to conduct a content analysis of a range of web-based film texts according to their distinctive multimodal features and contexts of use

- from a principled selection of these resources, to describe how the intra-semiotic resources of sound (e.g. speech, music, other sounds) contribute to meaning-making in film texts

- from the same selection of film texts, to describe how inter-semiotic resources (e.g. sound, image, movement) combine and interact to make meaning in film texts

- to explore the implications of these studies for multimodal literacy.

Research questions

Can a metalanguage be articulated from a descriptive account of the semiotic resources of sound in film texts?

Can a descriptive account of the semiotic resources of sound in film texts generate a metalanguage for supporting multimodal literacy?

Contributing questions:

- How can the meaning-making resources of sound be described in film texts?

- How do the semiotic resources of sound combine and interact with image and movement to create meaning in film texts?

- What metalanguage can be articulated that describes the resources of sound for making meaning in film texts?

Literature Review

The following review of literature, which is a work-in-progress, considers research which is relevant to the fields of communication, multimodality and sound semiosis in film texts, so that the review informs theoretical and methodological frameworks for this study. Part 1 reviews models of communication that orient research towards the resources of multimodal texts. Part 2 reviews research into multimodal texts (such as film texts) that have engaged the theoretical perspectives of systemic functional linguistics and social semiotics to analyse and describe how meaning-making occurs across a text.

Part 1 Multiliteracies to Multimodality: models of communication

1.1   Multiliteracies

In reconceptualising literacy as multiliteracies, The New London Group (2000) account for significant social changes impacting on literate practices in public spaces, our working lives, and personal lifeworlds. The concept of multiliteracies reflects the realities of people engaging with a multiplicity of communications modes and media, and with the 'increasing salience of cultural and linguistic diversity' (2000 p.5) and reflects the need for people to learn multiple literacies for new times.

The New London Group tentatively proposed a Pedagogy of Multiliteracies to frame a commensurate shift in the substance and pedagogy of literacy. Design was the heuristic framing their model for teaching multiliteracies, to account for the infinite variability of different forms of meaning-making available for text use. In this model, the 'what' of a pedagogy of multiliteracies places a clear focus on the study of resources available for meaning-making (semiosis) in multiple modes, that is, in language, image, sound and movement, so that new redesigned meanings will be produced.

1.2   Multimodal Discourse

Supporting the notion of Multiliteracies, Kress (2000) acknowledged that this phenomenon of multimodality emphasises the requirement 'for a theorisation and description of the full range of semiotic modes in use' (2000 p.183) that could not only describe specific characteristics of a particular mode but also the processes which integrate semiotic modes into plausible meanings.

By 2001, academic conversations about multiliteracies had naturalised into a Multimodal Discourse. Kress and van Leeuwen (2001) suggested a theory of multimodal communication appropriate to contemporary practice, pursuing the possibility that common semiotic principles, such as framing, can operate in and across different modes. Their focus was to investigate how a technical possibility might be made to work semiotically across modes and metafunctions (Kress 2000 p.2). Multimodal texts, argue Kress and van Leeuwen, articulate their meanings in four domains of practice: discourse, design, production and distribution. Their multimodal model therefore indicated that semiosis occurs in these stratified configurations.

1.3   Multimodal discourse analysis

Concurrent and subsequent research experimented with multimodal models of communication by conducting multimodal discourse analyses on a range of discourse and sites that made use of multiple semiotic resources, and which increasingly included analyses of dynamic texts (Baldry 2004; Jewitt & Kress 2003; O'Halloran 2004). Dynamic texts are understood as texts that unfold over time.

Using functional linguistics and the concept of metafunctions (Halliday 1985) as a starting point, Baldry (2000b) and colleagues made studies of print and dynamic multimodal texts, reporting on the relevance and contribution that a wider multimodal framework can make in defining new roles for teaching and learning. Investigating video recorded lectures (Baldry 2000a) and television advertisements (Thibault 2000), some researchers noted that dynamic texts involve many more semiotic resources in the production of meaning, such as body movements and positions, music, gaze, rhythm, sounds and language, thereby making their structure more complex. Their observations raise issues about ways to describe a range of semiotic resources and ways to describe their interaction to structure a whole dynamic text.

In reporting their multimodal discourse analyses of electronic media and film texts, researchers acknowledge the current focus on analysis of the dynamic text (Baldry 2004; Callagan & McDonald 2002; Iedema 2001; Lemke 1998; Martinec 2000; Thibault 2000; van Leeuwen 1999).

O'Halloran (2004) attempted a method for capturing and analysing the dynamics of visual and sound semiosis in digitalised video format, using commercially available software in conjunction with visual grammar, and a metafunctionally organised rank constituent system (O'Toole 1994), to directly search for changing patterns in a dynamic film text. She concluded that such a method was problematic, as it was too difficult to simultaneously record metafunctional choices across the different semiotic systems in real time. Computer technology was engaged by Baldry (2004) to address problems in describing semiotic resources and their structuring as meanings across a whole dynamic text, as they occur in real time. He recommended that the relational properties of a multimodal concordancer provided new possibilities for the analysis and comparison of film and videotexts, especially in the search for patterns of meaning which might characterise a film type.

1.4   *Multimodality*

A significant contribution to semiotic description and explanation of media texts including dynamic texts has been made by Baldry and Thibault (2006) in presenting their scalar model of multimodality, which has implications for educational contexts. Based on their previous research, the authors develop a theoretical model and an analytical approach which are both functional and meaning based, and demonstrate how detailed analyses and interpretations of a range of multimodal texts (including film texts) can be conducted in reference to their social and cultural contexts. The researchers view multimodal texts as consisting of 'multiple interacting textual levels that make their meaning through the constant interplay of smaller and larger textual units' (2006 p.54), and accordingly they engage concepts and analytical procedures which will identify text features that exist at different scalar levels.

1.5   *Multimodal Literacy*

Despite the emphasis on semiotic resources across modes and their use in communications, research attention has turned to learning and literate practices in relation to multimodal texts, where no orthodoxy previously existed. Presenting a 'multimodal semiotic approach', Jewitt and Kress (2003 p.1) showcase multimodal explorations of learning in educational contexts where the focus is on signs, meaning-making, representation and interpretation of multimodal texts. Researchers report on instances where specific modes and modal resources have been analysed in classrooms such as image and writing, action, gaze; and where the integration of modal resources are the focus of enquiry (Jewitt 2003; Pahl 2003; Stein 2003). Such analytic accounts of multimodality in classrooms reveal students recognising, using and manipulating the affordances of semiotic resources in multiple modes to make or rework their meanings, or learning to mean in multimodal ways. Accordingly, these students' interactions with texts strongly suggests that literacy teachers can rethink learning as a multimodal accomplishment (Jewitt & Kress 2003 p.34). In investigating the semiotics of sound, this study expects to make a contribution to the teaching and learning of multimodal literacy.

Part 2 Social Semiotics as a Metatheory

Sociocultural models of communication have engaged concepts from both systemic functional linguistics (Halliday, 1978, 1985) and social semiotics (Halliday 1978; van Leeuwen 2005) to describe and explain the meaning-making nature and behaviour of resources in communicative modes, such as the linguistic, visual, audio and kinesic modes. From systemic functional linguistics, the concept of choices made from system networks have been included by researchers to investigate meaning-making in multimodal texts (Kress & van Leeuwen 1996; Martinec 2000; O'Toole 1994; van Leeuwen 1999). Many researchers maintain an interest in explaining meaning along metafunctional lines (Baldry 2000b; Baldry & Thibault 200; O'Halloran 2004), however other researchers have challenged metafunctional organisation of meaning (Lemke 1998; van Leeuwen 1999).

Social semiotics, as a theory applied to the field of multimodality, has increasingly been taken up by researchers interested in developing multimodal models of communication (Baldry 2000a; Baldry & Thibault 2006; Halliday 1978; Jewitt & Kress 2003; Kress & van Leeuwen 1996, 2001; McDonald 2003). The application of social semiotics offers a credible metatheoretical basis for researching sound semiosis in film texts, which is the focus of this study.

2.1   Semiotic resources

2.1.1   Language

Halliday (1978) proposed the notion of language as a social semiotic, where words are signs which have meanings, are organised into language systems, and are available as a resource for making meaning in changing social and cultural contexts. In this sociocultural view of language, semantic choices function to make meaning in three dimensions of text, i.e. the ideational (what is going on in the world), interpersonal (relations between composer and responder) and textual (providing cohesion). Halliday generated systemic functional linguistics as a grammar, or metalanguage, to interrogate the linguistic resources of texts.

A number of concepts from Halliday's original sociocultural theory of language have implications for researchers subsequently investigating meaning-making resources in non-linguistic modes:

- texts are constructed in response to sociocultural contexts

- semiotic resources serve metafunctional purposes

- a grammar facilitates description of semiotic resources.

2.1.2   Visual images

Following Halliday, Kress and van Leeuwen (1996) explained the resources of the visual mode as making discrete metafunctional meanings, that is, ideational, interpersonal and textual, on the assumption that the semiotic resources of the visual mode are sufficiently developed and abstracted to permit identification of a systematised grammar of visual design. Their commonsense 'grammar', or metalanguage, which described visual semiotic resources, has helped to shape understandings about tripartite metafunctional modelling of meaning in images.

2.1.3   Sound

In contrast, van Leeuwen (1999) suggests that the semiotic resources of speech, music and other sounds are not sufficiently developed and abstracted to allow a systematic 'grammar' of sound to emerge. Nevertheless, he attempts the creation of a vocabulary to talk about and explore the integration of resources from speech, music and other sounds. He also observes that the 'mode of sound simply does not seem so clearly structured along metafunctional lines as language and visual communication' (1999 p.190); identifying instead that the common domains of speech, music and other sounds which are used to 'say things with sound', do cross metafunctional boundaries. He suggests that resources such as volume, timing, pitch and melody, deriving from the materiality of sound (the human effort needed to produce sound) rather than their communicative functions, explains their contributions to meaning-making in texts. Volume, for example, can indicate action and social relations and provide cohesion in a multimodal text. He reflects on the possibility of different semiotic modes having different metafunctional configurations that may be culturally motivated.

2.1.3 Multiplicative meanings

Lemke (1998) observed that resources in each semiotic mode have the capacity to make multiple interconnections of meaning in multimodal texts. Using verbal-visual resources Lemke demonstrates that in serving three generalised semiotic functions, that is, presentational, orientational, organisational, each semiotic resource can contribute to each function, can cross-modulate across functions, and can combine with other semiotic resources to modulate jointly made meanings, thus multiplying the set of meanings that can be made in a multimodal text.

The observations of Lemke (1998) and van Leeuwen (1999) that semiotic resources can make meanings across metafunctions and in multiplicative ways, prompted the search for common semiotic principles operating across modes.

2.2 Semiotic resources integrating and combining

The concept of non-linguistic semiotic resources integrating and combining and compressing their meanings in multimodal texts has been explored by many researchers (Baldry 2004, Baldry & Thibault 2006). Baldry acknowledges that the structure of dynamic texts is complex, with various semiotic resources often organised into 'overlapping phases and gradual transitions between phases' (Gregory 1995, cited by Baldry 2000a p.65), concepts taken up by Thibault (2006, 2000) who, in presenting a static transcription of a dynamic film text, explains how a whole range of semiotic resources, such as music, sounds, movement, gaze, gesture, rhythm and language co-pattern, or are synchronised, to make meanings in a television bank advertisement. Using transcriptions of the visual image, soundtrack and kinesic action from the film text, the meaning of each phase is discussed in metafunctional terms. Echoing van Leeuwen (2005), the author asserts that semiotic resources behave in principled ways, following the resource integration principle, and meaning compression principle to make meaning in clusters, or phases.

Investigating the integration of resources in a short animated film, Burn and Parker similarly use the concepts of 'boundary', 'grouping' and 'conjunction' (2003 p.6) to describe how sections of the image and soundtracks are grouped to tell the story, which they also explain in metafunctional terms. Using music and film texts, van Leeuwen demonstrates that phrasing is the common semiotic principle that matters in multimodal text cohesion, an organising principle which brings the semiotic resources of modes together to 'chunk' meaning (2005 p.184). In his view, semiotic articulations such as speech, music and movement are segmented into phrases which communicate information, in contrast to other rhythms from nature or repetitive human work which tend to form a continuous background. The principle of 'phrasing' in music texts (van Leeuwen 1999, 2005) is synonymous with the principle of 'framing' in visual images (Kress & van Leeuwen 1996) and with the principle of 'phase' in film texts (Baldry & Thibault 2006) to organise cohesion in multimodal texts.

2.3   Whole text composition

The issue of multimodal cohesion in dynamic (time-based) texts has been addressed by a number of researchers who suggest that information is delivered by various semiotic resources assuming a part – whole organisation across the text.

Van Leeuwen (2005) suggests that rhythm provides meaningful structure of time-based texts such as film, by dividing the flow of time into 'measures, phrases and moves' (2005 p.189) which act as a kind of timeframe for the stages of the generic structure. As well, rhythm is indispensable in carrying key information, and fusing together the meanings expressed in and through the different semiotic modes that enter the multimodal composition, for example the meanings expressed by the action, the dialogue, the music and the other sounds in films. Van Leeuwen elaborates on the central role that dialogue plays in social semiotics, as multimodal cohesion can be looked at in terms of 'interactional dynamics' (2005 p.248). In this view, interactions of different semiotic resources are structured as dialogic exchanges, where several 'voices' can be heard, either simultaneously or sequentially.

To elaborate their scalar model of multimodality, Baldry and Thibault (2006) present a multipurpose toolkit of concepts and procedures which can be adapted and used for multimodal discourse analysis with whole-part relationships in mind. In transcribing and analysing a number of television advertisements the authors suggest that visual, aural and gestural semiotic resources, for example, which exist at the lowest textual level, combine as clusters and phases that make meaning at the intermediate level of text. The phases are subsequently organised into superclusters and macrophases at the highest level of text.

Micro-analytical (phase) and macro-analytical (macrophase) descriptions, using particular concepts and tools, appear to facilitate the explanation of how multimodal texts mean, and constitute a valuable contribution to understanding cohesion in whole film texts.

2.4   Technologically - assisted analysis of film texts

Baldry (2004, 2006) reported on technological developments which have refined the functions of the Multimodal Corpus Authoring (MCA) system, an online, XML/Web-based multimodal concordancer, in response to the need for the analysis of dynamic multimodal texts in real time. The MCA is designed to capture, in digitalised format, semiotic features of dynamic texts which display constantly varying configurations of sound, image, gesture, text and language as the text unfolds over time, using software that is built around functional parameters, and supports (verbal) tagging. This method allows analysts to record choices in a relational database so that relational searches can reveal patterns across a series of texts. The MCA, or similar analytic systems which I will need to examine, could facilitate the sorting of large amounts of

data in this study, and provide detailed transcription and analysis procedures for a descriptive account of sound semiosis in film texts.

Research Design and Research Methods

Stage 1 Preliminary search/categorical analyses

1.1   A range of television advertisements will be identified, for teaching English in the middle years. The television advertisements, sourced from the world-wide web, may be identified in syllabus and syllabus support documents, teacher reference texts, teacher programs and school resources. The advertisements will satisfy the following criteria:

- of interest to upper primary (Stage 3 in NSW) to junior secondary (Stages 4-5 in NSW)

- suitable for use in classrooms

- use the modal resources of image, sound and movement .

1.2   A content analysis of one group of television advertisements from the range will be completed e.g. television advertisements that include speech, music and other sounds on the soundtrack.

The content analysis articulates key differences between a principled selection of television advertisements from the range, and describes their content. This data collection method offers an objective procedure for making observations about content, and for coding and quantifying explicitly defined features as categories. In this case, a content analysis of the macrostructures and multimodal features of the advertisements will be developed, including:

- length

- subject e.g. shampoo, food

- audience e.g. adolescents, retirees

- contextual features e.g. part of commercial campaign, heralding special events

- modalities used e.g. image, sound, movement

- visual coding orientation e.g. naturalistic, abstract

- representation e.g. narrative, conceptual

- sound as speech, music or other sounds

- macrostructures e.g. stages.

Stage 2 Detailed multimodal analysis

2.1   Transcription of data

From Stage 1, a further principled selection of television advertisements from the content analysis will be described in detail, using transcription techniques, for example television advertisements such as those focused on upcoming events, where sound is significant for making meaning. At this point of the research design, the analytical goal is to provide a description of the data at a significantly increased level of delicacy, and transcription techniques afford a much higher level of magnification of each text.

In this detailed analysis, the focus is on the parameters that organise the relations between the depicted text, and the viewer. These parameters can be semiotic resources in a multimodal text. The parameters of the sound, image and movement modes will be identified and coded in an attempt to understand their meaning-making (semiotic) resources. Annotation criteria derived from social semiotic research into the meaning potentials of intra-semiotic modal resources will be used for transcribing the data, for example:

- in sound, the materiality of the semiotic resources of speech, music and other sound effects can be used to inform transcription conventions ie in relation to tempo, volume, melody, rhythm (van Leeuwen 1999)

- in the visual image, parameters that organise the relations between the depicted world of the visual image and the viewer can be used to inform transcription conventions ie camera position, coding orientation, colour, gaze (Kress & van Leeuwen 1996).

2.2   Analysis of transcribed data

At this point, it is necessary to step back from detailed transcriptions of discrete semiotic resources and conduct a macro-analysis to consider how those resources combine and interact to make meaning over the whole dynamic film text. Transcribed data will be analysed so that the principle of metafunctions reveals the co-patterning of multiple semiotic resources into phases and macrophases of meaning, positioning the data so that it informs pedagogic discussion about multimodality in dynamic film texts.

Stage 3 Researching the implications for teaching multimodal literacy

Consultation and engagement with teachers needs to occur at this stage, to explore the implications of using a metalanguage for describing the meaning-making resources of sound to students in the middle years of schooling. Informed by Stage 1 and Stage 2 processes, a metalanguage will be identified for explicit teaching about the semiosis of sound in multimodal texts. By making this metalanguage known to teachers, it is then possible to explore how a metalanguage might influence teachers' understandings of the theory and practice of multimodal literacy.

3.1 Articulating a metalanguage for teaching about the semiotic resources of sound, how they interact with other modal resources, and build meaning in whole film texts

3.2 Developing a sequence of lessons to exemplify a metalanguage for teaching about sound

A sequence of lesson plans will be developed which engages a metalanguage for explicit teaching about sound in film texts used in the middle years of schooling. The lessons will be designed to exemplify:

- generic features and content of film texts under study

- metalanguage to describe particular semiotic resources of sound, and how sound combines and interacts with image and movement to make meaning

- processes which examine the part – whole nature of dynamic film texts.

3.3 Exploring teachers' understandings about sound and multimodal literacy

The lesson plan sequence will be presented to a sample of ten teachers across NSW who are recognised as innovators in teaching English and multimodal literacy. To explore how the use of a metalanguage might mediate understandings about the semiosis of sound in multimodal texts, initial data will be collected using a Likert scale to indicate levels of teacher understanding. A principled selection of four teachers will subsequently be made from this group, to probe the breadth and depth of their understandings about using a metalanguage to explicate the theory and practice of teaching multimodal literacy. Using qualitative research methods such as classroom observations, interview, reflection instruments, data from teachers will be collected to provide a thick description of understandings from the four teachers.   This data will be analysed by using qualitative methods of open, axial and selective coding (Punch 1998) and triangulation to reduce the data and point to emergent themes and issues for teaching multimodal literacy.

3.4 Building 'multiple case studies' of teacher understandings about teaching multimodal literacy

Using the abstracted data from 3b, multiple case studies (Punch 1998 p.152) will develop propositions about teachers understandings of theory and practice in relation to multimodal literacy, and how these understandings might be influenced by knowing and using a metalanguage. Concepts about teacher understandings, can then be discussed as unique or common across the cases.

REFERENCES

Baldry, A. 2000a, 'English in a visual society: Comparative and historical dimensions in multimodality and multimediality', in *Multimodality and Multimediality in a Distance Learning Age,* ed A. Baldry, Palladino Editore, Campobasso.

Baldry, A. 2004, 'Phase and transition, type and instance: Patterns in media texts as seen through a multimodal concordancer', in *Multimodal Discourse Analysis: Systemic Functional Perspectives,* ed K. O'Halloran, Continuum, London.

Baldry, A. Ed., 2000b, Multimodality and Multimediality in the Distance Learning Age, Palladino Editore, Campobasso.

Baldry, A. & Thibault, P. 2006, Multimodal Transcription and Text Analysis. A Multimedia Toolkit and Coursebook with Associated Online Course, Equinox Publishing Ltd, London.

Board of Studies NSW. 1998, *English K-6 syllabus.*

Board of Studies NSW. 2001*, 7-10 English syllabus.*

Burn, A. & Parker, D. 2003, 'Chpt 4 Tigers big plan: Multimodality and the moving image', in *Multimodal Literacy,* ed C.K. Jewitt, Peter Lang Publishing Inc, New York.

Callagan, J. & McDonald, E. 2002, 'Expression, content and meaning in language and music: An integrated semiotic analysis', in Language, Vision and Music: Selected Papers from the 8th International Workshop on the Cognitive Science of Natural Language Proceeding, eds P.McKevitt, S. O. Nuallain & C. Mulvihill, John Benjamins, Amsterdam.

Comber, B. & Kamler, B. Eds., 2005, *Turn-around Pedagogies: Literacy Interventions for At-risk Students*, Primary English Teaching Association, Newtown NSW.

Halliday, M.A.K. 1978, *Language as Social Semiotic*, Edward Arnold, London.

Halliday, M.A.K. 1985, *An Introduction to Functional Grammar*. Edward Arnold, London.

Iedema, R. 2001, 'Analysing film and television: A social semiotic account of hospital: an unhealthy business', in *Handbook of Visual Analysis,* eds J.C & K.G, Sage, London, pp.183-204.

Jewitt, C. 2003, 'Chp 3 Computer-mediate learning: The multimodal construction of mathematical entities on screen', in *Multimodal Literacy,* ed C.K. Jewitt, Peter Lang Publishing Inc, New York.

Jewitt, C. & Kress, G. (eds) 2003, *Multimodal Literacy*, Peter Lang Publishing Inc, New York.

Kress, G. 2000, 'Multimodality', in *Multiliteracies: Literacy Learning and the Design of Social Futures*, eds B.Cope & M. Kalantzis, Macmillan Publishers Australia Pty Ltd, South Yarra.

Kress, G. & van Leeuwen, T. 1996, *Reading Images: The Grammar of Visual Design*. Routledge, London.

Kress, G. & van Leeuwen, T. 2001, Multimodal Discourse: The Modes and Media of Contemporary Communication.

Lemke, J. 1998, 'Multiplying meaning: Visual and verbal semiotics in scientific text', in *Reading Science: Critical and Functional Perspectives on Discourses of Science*, eds M.J & R. Veel, Routledge, London, pp.87-113.

Luke, A., Comber, B. & Grant, H. 2003, 'Critical literacies and critical studies', in *The Literacy Lexicon,* eds M. Bull & G. Anstey, Pearson Education Australia., Frenchs Forest.

Martinec, R. 2000, 'Construction of identity in Michael Jackson's Jam', *Social Semiotics*, vol.10, no.3, pp.313-329.

McDonald, E. 2003, Sound as Embodied Behaviour: Towards a Model of Music as a Social Semiotic System.

O'Halloran, K. Ed., 2004, Multimodal Discourse Analysis: Systemic Functional Perspectives, Continuum, London.

O'Toole, M. 1994, *The Language of Displayed Art*, Leicester University Press, London.
Pahl, K. 2003, 'Children's text-making at home: Transforming meaning across modes', in *Multimodal Literacy,* ed C.K. Jewitt, Peter Lang Publishing Inc, New York.

Punch, K. 1998, Introduction to Social Research: Quantitative and Qualitative Aproaches, Sage Publications, London.

Queensland Studies Authority. 2005, *English Years 1 - 10 Syllabus*.

Stein, P.2003, 'The Olifantsvlei Fresh Stories Project: Multimodality, creativity and fixing in the semiotic chain', in *Multimodal Literacy,* ed C.K. Jewitt, Peter Lang Publishing Inc, New York.

The New London Group.2000, 'A pedagogy of multiliteracies designing social futures', in *Multiliteracies: Literacy Learning and the Design of Social Futures*, eds B.Cope & M. Kalantzis, Macmillan Publishers Australia Pty Ltd, South Yarra, pp.311-385.

Thibault, P.J. 2000, 'The Multimodal transcription of a television advertisement: Theory and practice', in *Multimodality and Multimediality in a Distance Learning Age,* ed A. Baldry, Palladino Editore, Campobasso.

Unsworth, L. Ed., 2001, Teaching Multiliteracies: Changing Contexts of Text and Image in Classroom Practice, Open University Press, Buckingham.

van Leeuwen, T. 1999, *Speech, Music, Sound*, Macmillan Press Ltd, London.

van Leeuwen, T. 2005, *Introducing Social Semiotics*, Routledge, Oxon.