This is the published version

Cloonan, Anne, Kalantzis, Mary and Cope, Bill 2010, Schemas for meaning-making and multimodal texts, in Beyond the grammar wars: a resource for teachers and students on developing language knowledge in the english/literacy classroom, Routledge, New York, NY, pp.254-275.

Available from Deakin Research Online

http://hdl.handle.net/10536/DRO/DU:30028669

Reproduced with the kind permission of the copyright owner

Copyright: 2010, Taylor & Francis
Introduction

It has become commonplace to observe that communication in the 21st century is no longer limited to print-based forms of literacy. The digital world’s reduction of the elementary modular unit for the production of textual meaning from the character of the printing press to the zeros and ones that underlie computer code has resulted in the ability to make, store and distribute sound, language and still and moving images through the same media because they can all be reduced to a common platform. Far from the analog world, the proliferation of new communications technologies has shifted the capacity for combining representational modes from technical specialists to households, classrooms, cafes and libraries. Meaning is made in ways that are increasingly multimodal – in which linguistic modes of meaning interface with visual, audio, gestural and spatial patterns of meaning (New London Group, 1996, 2000).

Observations on the unprecedented transformations in communication due to the pace of change have also become commonplace. To take one measure, the scale of Internet access has reached a point where one-sixth of the world’s population has access to the Internet with one-half of the world’s population due to be online by 2012. These figures belie divisions among regions, countries and age-groups. However, speed and scale of growth in Internet access in regions with the lowest current access rates, such as Africa, Asia, Latin America and the Middle East, are clearly apparent (Internet World Stats, 2006).

A profound shift is also occurring in the balance of agency as workers, citizens and learners are increasingly required to be users, players, creators and discerning consumers rather than the audiences, delegates or quiescent consumers of an earlier modernity. Students increasingly spend time in their out-of-school lives using multimodal forms of communication and social networking tools in online worlds, transforming their expectations of and orientations toward texts, literacies and pedagogies.

Against this backdrop, state and national curriculum guidelines increasingly embed the need for teachers to attend to digital forms of literacy enabled by contemporary media technologies, and to teach an extended repertoire of new and traditional literacies. But while teachers are encouraged to incorporate multimodal texts and literacies into the classroom, professional learning and
other resources are confined to knowledge about technology and its practical uses rather than knowledge of the *meaning-making* capacities of various modes.

Various contributions have been made to the development of theoretical accounts of aspects of multimodality (Kress & van Leeuwen, 1996; New London Group, 2000; Unsworth, 2001). These accounts of multimodal meaning, while widely acknowledged, were not generated out of classroom practice. The core concepts and language in these accounts for the most part remain highly theoretical, and have not been widely explicated for teachers and students. The development of an accessible and generative multimodal metalanguage, a means by which students and teachers can articulate the functions of components of multimodal designs, has been identified as an urgent agenda item in developing students' multiliteracies capacities (New London Group, 1996, 2000; Unsworth, 2001).

This chapter explores a case study of expanded literacy pedagogies in which multimodal meaning-making is incorporated. In this case, the stimulus for renewed literacy teaching was a professional learning research project (Cloonan, 2005, 2008a, 2008b) involving early-years literacy teachers (students aged 5–10). This chapter will outline the context of the professional learning research, including two key schemas drawn from multiliteracies theory with which participating teachers engaged – a *multimodal schema* and a pedagogical *knowledge-processes schema*. Following this, it will detail the classroom literacy pedagogical context in which multimodal texts were encountered and created by students. Teacher attention to different modes of meaning (linguistic, visual, gestural, audio and spatial) as a result of engagement with multiliteracies schemas will be analyzed. A *dimensions-of-meaning* schema will support this analysis. Further possibilities for teacher generation of a multimodal metalanguage using the dimensions-of-meaning schema will be explored.

**Activity: Map Your Own Use of Multimodal Texts and Multimodal Metalanguage**

Think about the multimodal texts you use and those you've seen used in classrooms. Include digital and non-digital examples. What metalanguage do you use to talk about multimodal texts? What metalanguage do you use to talk about multimodal texts? What metalanguage do you use to talk about multimodal texts? What metalanguage have you heard other teachers use? List the sorts of terms used in describing, using or producing such texts.

**The Context of the Research**

The teacher referred to in this chapter was a participant in a project which supported professional learning and the classroom application of multimodal pedagogies. Teachers were engaged as co-researchers of their own classroom practice and scholarship (Cochran-Smith & Lytle, 1993; Darling-Hammond 1997; Elmore, 2002). They engaged with theoretical schemas through participatory
action research (Carr & Kemmis, 1986; Kemmis & McTaggart, 2005). The schemas were drawn from multiliteracies theory and included a *multimodal schema* (New London Group, 1996, 2000) and a *pedagogical knowledge-processes schema* (Kalantzis & Cope, 2004, 2005).

The multimodal schema frames literacy meaning-making resources as linguistic, visual, audio, gestural and spatial. Multimodality is the interplay of the different modes. The multimodal schema is underpinned by the notion of “design” to describe linguistic, visual, audio, gestural, spatial and multimodal codes and conventions or grammars. The word “design” has a fortuitous double meaning, simultaneously describing intrinsic structure or morphology, and the act of construction. Design in the sense of construction is something you do in the process of representing meanings, to oneself in sense-making processes such as reading, listening or viewing, or to the world in communicative processes such as writing, speaking or making pictures.

As designers, students draw on “available designs”, existing design elements, be they linguistic, visual, audio, gestural, spatial or multimodal designs in meaning-making. Students are involved in “designing” by harnessing available designs to make meaning for their own purposes. Students produce “redesigned”, or transformations of, meaning, which then become available designs for other meaning-makers to draw upon.

The pedagogical knowledge-processes schema presented four (or eight finely differentiated) pedagogical orientations, as follows:

1. student experiencing, be that experiencing the known or the new;
2. student conceptualizing, be that conceptualizing by naming or by theorizing;
3. student analyzing, be that analyzing functionally or critically; and
4. student applying, be that applying appropriately or creatively.

Teachers researched their own classroom practices and reflected on these in interview. They documented and published context-specific pedagogical applications of multimodal teaching as “Learning Elements” (Kalantzis & Cope, 2005). A “Learning Element” is a teacher-developed pedagogical sequence written on a “Learning Element template” which can be published online. It has a Teacher Resource section which is designed to be accessed by other teachers and a Student Resource section for learners to use. The “Learning Element template” contains a series of prompts for teacher consideration when developing pedagogical sequences. Informing the prompts are the four pedagogical knowledge processes. Teacher authors engaging with the template are prompted to develop a “Learning Element description” (a short overview of the sequence of lessons being developed), a “Learning Focus”; “Knowledge Objectives”; “Knowledge Processes”; and “Knowledge Outcomes”.

---

1. The four “knowledge processes” relate to the orientations in the four-part multiliteracies pedagogy of situated practice, overt instruction, critical framing and transformed practice (New London Group, 1996, 2000).
The pedagogical context of the teaching of multimodality addressed in this chapter consists of 14 lessons developed by a case-study teacher, Robyn (a pseudonym). Robyn taught a class of school entrants in an inner-suburban, multicultural school in Melbourne. She documented the 14 lessons in a “Learning Element”, entitled “Body Talk: Making and Interpreting Meaning”.

In response to the prompt for a short description of the sequence of learning planned, Robyn wrote:

This Learning Element guides learning about expression and feelings enabling students to classify and articulate a range of feelings. Children are involved in posing for digital photos and exploring meaning through hands, stance, and eyes. Through the use of literature, illustration, movement and sound, students analyze layers of meaning, deconstructing and reconstructing multimodal texts.

Robyn also wrote a “Learning Focus” for the “Learning Element” which reads: “All children make and interpret meaning as part of their everyday lives. They have been successfully interpreting facial expressions, tone and gesture in a variety of settings.” In interview, Robyn elaborated on purposes for planning and developing the particular set of knowledge objectives, knowledge processes and knowledge outcomes described in the “Learning Element”. Robyn describes consideration of the meaning-making experiences of students on entry to school as well as consideration of students’ lifeworld experiences:

When Preps\(^2\) come to school they come from a variety of different entry points and they’ve all got to learn a new language at school and a new way to make meaning. The thing they know most about is themselves; so we worked on themselves and their own facial expressions and we played lots of games using facial expressions and getting to know the language of feelings and things like that.

These rationales suggest that Robyn’s multimodal literacy pedagogies were inclusive of gestural and visual meaning-making modes in the literacy program – a literacy focus broader than print. Robyn’s aims seek to engage students with the interplay of modes of meaning – rather than only the technology – of digital culture. They seek to engage students with the meaning-making potential of gesture, visual and audio modes, modes traditionally studied in the arts curriculum, in interplay with the linguistic mode. Robyn’s documentation then shows 14 lessons to which she has ascribed visual “tags” of the eight finely differentiated pedagogical “Knowledge Processes”.

Data relating to Robyn’s movement toward classroom enactments influenced by the “multimodal schema” and “pedagogical knowledge-processes schema” is given in Table 14.1 and will form the basis for discussion in this section. Lesson

---

2. “Preps” are students in their preparatory year of schooling in Victorian schools; the first year of formal education.
<table>
<thead>
<tr>
<th>No.</th>
<th>Lesson Title</th>
<th>Multimodal Emphasis</th>
<th>Pedagogical Knowledge Process</th>
<th>Pedagogical Knowledge Objective/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Verbalizing expressions and feelings</td>
<td>Gestural Peer and personal gestures, mirrored reflections</td>
<td>experiences the known</td>
<td>Discuss the meaning that gesture, expression and sound make in books, magazines and videos.</td>
</tr>
<tr>
<td>2</td>
<td>Classification, articulation of feelings</td>
<td>Gestural in visual Expressions in magazine images; bingo cards</td>
<td>experiences the known</td>
<td>As above</td>
</tr>
<tr>
<td>3</td>
<td>Posing for digital photos</td>
<td>Gestural in visual Expressions and gestures in digital photos</td>
<td>experiences the new</td>
<td>As above</td>
</tr>
<tr>
<td>4</td>
<td>Exploring how hands, stance, eyes and actions add meaning</td>
<td>Gestural in visual Expressions, gestures and stances in peer and personal digital photos</td>
<td>conceptualizing naming</td>
<td>Meaning is represented in multimodal form. To explore how modes can affect the construction and interpretation of meaning. To recognize that literacy encompasses various modes.</td>
</tr>
<tr>
<td>5</td>
<td>Exploring literature</td>
<td>Visual including gestural and linguistic Picture story book characters</td>
<td>conceptualizing theorizing</td>
<td>As above</td>
</tr>
<tr>
<td>6</td>
<td>Exploring illustration</td>
<td>Visual including gestural and linguistic Picture-book and “story map”</td>
<td>analyzing functionally</td>
<td>To talk about print, gesture, sound, and expression as part of meaning – how do they help meaning?</td>
</tr>
<tr>
<td></td>
<td>Exploring movement</td>
<td>Gesture in visual Animation</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td>-----------------------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>7</td>
<td>Exploring sound</td>
<td>Audio Speech, music, sound effects in interplay with visual animation</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>8</td>
<td>Making links</td>
<td>Linguistic Response to audio (speech, music, sound effects), and visual (animation)</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>9</td>
<td>Posing for a Body Talk video</td>
<td>Gestural Expressions, gestures and stances in filming process</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>10</td>
<td>Analysing gesture (no audio)</td>
<td>Gestural in visual Process of viewing film</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>11</td>
<td>Making meaning explicit</td>
<td>Linguistic and visual Reflection on gestural representation</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>12</td>
<td>Music analysis</td>
<td>Audio Musical resources</td>
<td>analyzing functionally</td>
<td>As above</td>
</tr>
<tr>
<td>13</td>
<td>Linking music and mood in video</td>
<td>Audio in visual Musical resources in interplay with visuals on video</td>
<td>applying appropriately</td>
<td>To articulate (using metalanguage) their own interpretations. To use gestural and audio literacies to add extra meaning to illustrated texts.</td>
</tr>
</tbody>
</table>
number in sequence; lesson title; multimodal emphasis; deployment of pedagogical knowledge processes; and deployment of pedagogical knowledge objectives are reproduced, highlighting the language of teacher planning. The following discussion shall focus on the lessons referred to in Table 14.1.

**Multimodal Pedagogies: Theory-Influenced Teacher Choices**

Robyn's initial classroom practices focused on "interpreting" movements and facial expressions through mirror games incorporating peer discussion of possible interpretations of reflected gestural representations. Focus then shifted from student-mirrored reflections to represented images of people in magazines, involving students in a search for pictures of people adopting various stances and facial expressions. Students sought, sorted and labelled images according to the feelings expressed – for example, happy people, sad people, thoughtful people and angry people.

Analysis and discussion of the results showed that the range of expressions represented in the magazines was quite limited, so a commercial game, "Expression Bingo", was used to further build language around a broader range of possible meanings of facial expressions. In the "Learning Element" Robyn entitled the first two enactments "Verbalizing expressions and feelings" and "Classification and articulation of feelings", the titles reflecting the heavy emphasis on the development of student language for describing meaning made through gesture. Robyn "tagged" these two enactments with the pedagogical knowledge process "experiencing the known", which in the tradition of immersion pedagogy, or the multiliteracies pedagogical orientation of "situated practice", involves recruiting learners' knowledge from their lifeworlds (Husserl, 1970).

Robyn then worked in rehearsal with groups of students exploring various expressions (and stances) before students made their own selections of expressions for photographic documentation. The third lesson was entitled "Posing for digital photos" and tagged as "experiencing the new", since many of the students were unfamiliar with digital photography. Experiencing the new involves immersing students in new information and experiences but, in the Vygotskian sense of scaffolded instruction, where the new learning is in the zone of proximal development (Vygotsky, 1978). The three initial lessons in the sequence drew on the progressivist-influenced pedagogies of connecting with students' lifeworld experiences. This was achieved via a focus on students' own gestural representations and an incorporation of images of other children – peers, in magazines and on cards.

Concepts of gestural meaning-making are traditionally found in drama, dance and physical education curricula. However, the influence of the multimodal schema was evidenced by Robyn's focus on actual gestures and visual representations of gestures during literacy teaching.

Lesson 4, which Robyn entitled "Exploring how hands, stance, eyes and actions add meaning", showed a shift in pedagogy with her tagging of "conceptualizing by naming". The focus of traditional overt instruction, conceptualizing by
naming involves defining and applying concepts, while conceptualizing by theorizing involves the connection of concepts in discipline knowledge through generalizing schemas or models.

Interpretations of possible feelings shown through expressions were sought and photos were also categorized according to the feelings expressed, for example, happy people; sad people; thoughtful people; angry people. Individual body parts were cut out from the photographic representations and students prompted to analyze the sections and determine possible gestural meanings to justify their points of view, concluding that gestural meaning can be conveyed in particular through eyes, mouth and hands. A poster with the sentence stem “We show our feelings with our…” and the words “mouth”, “eyes” and “hands” completing three sentences were accompanied by cut-out sections of the students’ photos. Students also drew representations of a “feeling” highlighting representations of “eyes”, “body” and “mouth”.

As described in the focus statement, Robyn expanded the focus to include children’s literature, enabling links with gestural meanings portrayed by characters’ expressions and implied actions. In this way Robyn led students into the “conceptualizing by theorizing” knowledge processes, exploring meaning-making concepts in different modes: linguistic, visual and gestural (and later audio) modes, making explicit the transferability of concepts. Lessons 5 and 6, “Exploring literature” and “Exploring illustration” involved readings and discussion of meanings in stories, the words of the stories; the way the print was presented (print size, type); and how the print and pictures made students feel. Students cumulatively documented their reactions to a range of books in a grid under the three headings: “Print”; “Picture”; “How it makes me feel”.

In lesson 7, “Exploring movement”, Robyn introduced an animated version of Rosie’s Walk, without audio, ensuring focus on gestures in animated form. Robyn narrated the story, so students had access to the linguistic textual resources, but not audio tracks. “They saw the pictures [from the book] moving and they got that concept of what was happening; the fox really following and Rosie not watching, but they didn’t have any idea of what sounds would be accompanying it.” Robyn replayed the animated version of the story in lesson 8, “Exploring sound”, this time with the accompanying audio (music, sound effects and the verbalized text read in a male American, mid-West accent):

They were really cued in to what sound effects [were in the animated text]. I noticed that when they heard the sound effect they’d anticipated, or it was something different, they turned to each other and they’d look … they were really listening for that sort of thing … and watching them move to the music.

Lesson 9, “Making links”, involved students in considering the meaning that each mode contributed to the narrative. Robyn’s focus on gestural, visual and linguistic meanings reflects the continued influence of the multimodal schema, achieved through focusing attention on individual modes of meaning. Robyn expressed surprise at the students’ ability to use language to describe their learning artifacts:
I'm seeing how adaptable the children are at using the language to suit the purpose and changing already. When we were doing the drawing of *Rosie's Walk*, one little child came up to me showing me his picture and pointed to a part of his picture saying “the fox has got a sad mouth because he's feeling unhappy” and just making those connections and using the language that I was using, and we’re already going from quite general language about our feelings and the modes to quite specific language.

Robyn’s focus showed receptivity to the children’s responses which resulted in further focus on isolated modes of meaning from the *multimodal schema*, as described in this interview:

When we were reading *Rosie's Walk* ... children started to say what sound effects, just spontaneously, that might happen, and I thought it would be interesting for them to watch the video [of *Rosie’s Walk*] without the sound and see what sort of connections they made.

Utilization of a cross-platform text (picture-story book and animation) enabled teaching of a range of modes of meaning from the *multimodal schema*, initially linguistic (through reading the print) and visual (through directing attention to the story in the pictures). When asked to reflect on deployment of multiliteracies theory at this point, Robyn commented:

[Prior to this] I kept saying, “What I’m doing is just natural ... I’m a fraud because I am not doing anything new”. Then I actually got the brainwave of bringing in the audio. And then I felt “yes I have taken my learning and their learning another step”.

Drawing on traditions of critical pedagogy, Robyn “tagged” the explorations of individual and combined linguistic, visual (illustration), gestural (animated movement), and audio (music, narration and sound effects) modes of meaning, *analyzing functionally*. Analyzing functionally investigates cause and effect; it involves considering the use of any knowledge, action, object or represented meaning. In contrast, *analyzing critically* interrogates human purposes and positions, querying the perspectives, interests and consequences of any piece of knowledge, action, object or representation.

The emphasis on analytical knowledge processes, specifically analyzing functionally, continued with lessons 10-13: “Posing for a Body Talk video”, wherein students identified, rehearsed and acted and filmed feelings; “Analyzing gesture (no audio)”, during which students viewed and analyzed each other’s films and discussed possible interpretations; “Making meaning explicit”, involving students reflecting on the experience of acting for camera and watching the footage in terms of “what I used”, “how I felt when I did it”, and “how I felt when I watched myself”; and “Music analysis”, where students considered the mood created by various types of recorded music.
Despite the applied objectives, "for the students to be able to articulate [using metalanguage] their own interpretations of meaning" and "to be able to use gestural and audio literacies to add extra meaning to chosen illustrated texts", Robyn did not "tag" any lessons as applying creatively and only one, lesson 14, as applying appropriately. "Applying appropriately" involves learner application of knowledge in a typical situation, in the tradition of applied or competence-based learning. While this may involve a typical or accepted application, it is never merely replicated but always transformative to some degree. "Applying creatively" involves learners in the innovative application or use of learning in a different situation, involving original and hybrid possibilities. Engagement with the pedagogical knowledge processes as a heuristic highlighted a possible lack of explicit scaffolding and documenting of attempts to apply new knowledge.

However, while Robyn's documentation shows that students had little opportunity to explicitly apply their learning, Robyn engaged and tracked students in applying their learning in an ongoing way throughout their daily encounters at school, as she describes:

> [e]ven though we've only been doing this unit for a very short time, I'm seeing how adaptable the children are at using the language to suit the purpose and changing already ... making those connections and using the language that I was using.

Robyn's documentation addresses areas of meaning-making prompted by the multimodal schema, as can be seen in the "Multimodal emphasis" column of Table 14.1. This is corroborated by Robyn's description of the meaning-making resources foregrounded in the lessons documented on the "Learning Element",

I focused usually just on the visual literacies, but using the video I was able to think about audio literacy and how much emphasis that adds to meaning and trying to get the children to see that, and that was a really good starting point to move on when we look at our videos of ourselves doing actions, to talk about what sort of sound effects or what sort of music will match that mood and that feeling. So where I want to go is looking at audio literacies and more on gestural literacies. Then much further down the track we'll probably be looking at the spatial too, as we're learning. So once I would only have focused on maybe the visual side and the alphabetical side, but now there's that whole range that I'm aware of.

The influence of the multimodal schema can be seen in the data-set relating to Robyn's classroom enactments in this teaching sequence, focusing on gestural, visual, linguistic and audio meaning-making resources. Robyn's focus on meaning-making modes in the 14 literacy lessons documented on the "Learning Element" and corroborated by teacher interview and staged filming data are represented in Table 14.2 below.
<table>
<thead>
<tr>
<th>Robyn: Teaching Focus: Mode (numerals indicate number of lessons)</th>
<th>Lesson No.</th>
<th>Total No. of Lessons</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Linguistic including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Linguistic response to audio and visual (1)</td>
<td></td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>• Linguistic reflection on gestural (1)</td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Visual including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Visual including gestural and linguistic (2)</td>
<td></td>
<td>5, 6</td>
<td>14</td>
</tr>
<tr>
<td><strong>Gestural including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Gestural (2)</td>
<td></td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>• Gestural in visual focus (5)</td>
<td></td>
<td>1, 10</td>
<td></td>
</tr>
<tr>
<td>• Audio including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Audio (1)</td>
<td></td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>• Audio in interplay with visual (2)</td>
<td></td>
<td>8, 14</td>
<td></td>
</tr>
<tr>
<td><strong>Spatial</strong></td>
<td></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Two of the 14 lessons focused on print linguistic meaning resources: one a response to audio and visual in an animation; the other a reflection on gestural representation in film. Two of the 14 lessons focused on visual meaning-making. Both of these lessons addressed different meanings of pictures and print in a range of children's literature and a picture-book study involving illustration and print meaning.

Seven of the 14 lessons focused on gestural meaning-making, two of which addressed actual student gestures or gestural presentation (Martinec, 1999) including exploration of students' peer and personal expressions and gestures; mirrored reflections and expressions; and gestures and stances in the process of being filmed. Five of the gesture-focused lessons addressed gestural meaning-making embedded in visual resources, or gestural representation (Martinec, 1999), expressions in images from magazines and on game cards; expressions, gestures and stances in photographs of children, including cut-outs of isolated facial features and body parts; and gestural representation of characters in animation; and viewing a film of students for gestural meaning.

Three of the 14 lessons focused on audio meaning resources: one lesson focused on a range of musical resources. A second audio-focused lesson explored the interplay of audio with visual meaning including speech, music and sound effects in interplay with visual animation, and a third focused on musical resources in interplay with visuals when constructing a video. As Robyn explains:

When I first thought about multiliteracies it was still probably within the context of an English block of teaching. I think the most powerful thing that I found is how it is in all learning and how we've really got to be aware of that and make those links, taking it from just looking at it in one area, one subject area [English], across all subject areas ... I didn't think I'd go that far in my learning, and teaching too.

Prior to engagement with the multimodal and pedagogical knowledge-processes schemas in the professional learning research project, Robyn focused English teaching and learning, and literacy teaching and learning, on learning language. Teaching engaged with a range of the modes from the multimodal schema challenged modes which constitute literacy meaning-making and placement of literacy and English into a daily block of time dedicated to literacy. Multimodal literacies were evident across all subject areas.

**Activity: Consider Robyn's Teaching of Multimodal Literacies**

Reflect on Robyn's sequence of lessons designed to develop multimodal literacies. Identify the modes and the pedagogies she has emphasized in her teaching. Compare this with a sequence of lessons you have taught or are currently teaching. Which modes and pedagogies do you emphasize? Which do you not emphasize? Reflect on your knowledge of metalanguage in the various modes? What conclusions can you draw?
Emerging Teacher-Generated Multimodal Metalanguage

Describing and comparing how meaning is constructed within isolated and combined modes of linguistic, visual, gestural, audio and spatial designs of meaning requires language which is accessible to young students and able to be generated by teachers and students in various teaching contexts.

Work from the multiliteracies project recommends that each of the above modes can productively be considered in terms of dimensions of meaning (Cope & Kalantzis, 2000). The dimensions-of-meaning schema draws on systemic functional linguistics (Halliday, 1994; Martin, Matthiessen & Painter, 1997) and critical literacy traditions (Fairclough, 2000; Gee, 1996) and offers a series of open-ended questions to broaden understanding of how elements of meaning are structured and how cultural and ideological knowledge of meaning can be deepened. The five dimensions of meaning to which the questions would be directed are:

- **Representational meaning**, which relates to who and what the design represents; and what’s happening in the design.
- **Social meaning**, which considers the way meaning connects the producer and the recipient.
- **Organizational meaning**, which involves the composition of the meaning.
- **Contextual meaning**, which relates to the context of the meaning and how context and meaning interrelate.
- **Ideological meaning**, which involves the possible motivations of the creator and consequent positioning of receiver.

The multimodal schema and the dimensions-of-meaning schema were incorporated into a matrix (see Table 14.3) in order to analyze Robyn’s generation and deployment of a multimodal metalanguage as evidenced through teacher prompts and teacher-specified goals (Cloonan, 2008a).

Each of these dimensions and examples from Robyn’s documentation of her teaching practice will now be discussed.

**Representational meaning** is explored through questions such as, *What do the meanings refer to?* This directs attention to the “participants” represented and the “being and acting” the meanings represent. This dimension prompts a consideration of who and what the text represents; and what’s happening in the design. Examples of Robyn’s emerging metalanguage relating to the representational

### Table 14.3 Modes and Dimensions of Meaning Matrix

<table>
<thead>
<tr>
<th></th>
<th>Linguistic</th>
<th>Visual Still/Moving</th>
<th>Audio</th>
<th>Gestural</th>
<th>Spatial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contextual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideological</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
dimension of meaning addressed the gestural, visual, linguistic and audio modes of meaning, including:

- Emotions and "states" are conveyed through gestures and facial expressions.
- Various body parts can indicate meaning: hand gesture, stance, mouth, eyes.
- Words describe feelings and expressions.
- Pictures can tell a story the same as or different from the words.
- Sound conveys meaning: noises can include sound effects and music.

Social meaning is explored through questions such as, *How do the meanings connect the persons they involve?* relating to the roles of participants in the communication of meaning; the commitment the producer has to the message; interactivity; and relations between participants and processes. This dimension prompts consideration of the way the meaning connects and relates to the producer and the recipient. Examples of Robyn's emerging metalanguage relating to the social dimension of meaning addressed the visual and audio modes of meaning, including:

- Words can make us feel different ways.
- Color can affect how we feel about a text.
- Music can affect the mood of a text and how we respond.
- Sound effects add emphasis to match mood.
- Feelings can be in response to sound on a video.

Organizational meaning is explored through questions such as, *How do the meanings hang together?* relating to mode of communication; medium; delivery; cohesion; and composition. This dimension prompts consideration of the composition or shape of the meaning and the way it communicates meaning. Examples of Robyn's emerging metalanguage relating to the organizational dimension of meaning addressed the gestural, visual, linguistic and audio modes of meaning, and included:

- The words go from left to right across many pages.
- Reading the text involves making meaning from the words, the illustrations, the layout and the music.
- The meanings from the visuals and the words can be different, that is, the words can say one thing and the pictures can say another.
- Whole body movements and expressions show feelings.

Contextual meaning is explored through questions such as, *How do the meanings fit into the larger world of meaning?* prompting consideration of the context of the meaning and how context and meaning interrelate. Examples of Robyn's emerging lexicon relating to the contextual dimension of meaning addressed the gestural/visual modes of meaning, including:

- Feelings can be expressed in different ways.
- Expressions can be "read" in different ways.
- Particular presentation styles assist in meeting different audience needs.
Ideological meaning is explored through questions such as, Whose interests are the meanings skewed to serve? drawing attention to the possible motivations of the creator and consequent positioning of receiver. Secondary questions relate to indications of interests; attributions of truth value and affinity; space for readership; deception by omission if not commission; and types of transformation. Examples of Robyn’s emerging metalanguage relating to the contextual dimension of meaning addressed the gestural/visual and audio modes of meaning, and included:

- Gestures in images can show real or “pretend” feelings.
- Expressions in visuals texts can be selected for different purposes.
- Sounds can be used to design a particular mood.

Analysis of the dimensions of meaning (representational, social, organizational, contextual and ideological) addressed when teaching various modes of meaning (linguistic, visual, gestural, spatial, audio, multimodal) offers insight into teachers’ choices and emphases. In Robyn’s case, the representational dimension of meaning was most heavily emphasized across the linguistic and visual (incorporating representations of the gestural) modes of meanings. The social dimension of meaning was emphasized when teaching about the audio, and the organizational dimension was most heavily addressed in the linguistic mode. The contextual dimensions of meaning addressed were in the gestural/visual modes and the ideological dimensions of meaning addressed were in the gestural/visual and audio modes of meaning.

In relation to a teacher-generated multimodal metalanguage, Robyn (and the other teachers involved in the project) deployed rich, student-friendly examples of different dimensions of modes in classroom discussions with students. The dot points in this discussion, which were examples of planning language gleaned from Robyn’s “Learning Element”, indicate examples of these. However, also evident was that teachers’ attempts lacked specialization of terms and a systematic framework as they grappled with emerging understandings of modes as meaning-making resources.

Further Explorations with Multimodal Metalanguage

Robyn’s work – particularly lessons 6-9 in which she engaged students with linguistic, visual, gestural and audio modes present in classic picture-book and animated versions of Rosie’s Walk – was the stimulus for further exploration of the multimodal/dimensions-of-meaning matrix. Drawing on Robyn’s technique of isolating the modes of meaning for independent study, a series of critical questions or prompts around the cross-platform text, Rosie’s Walk, have been generated. Possible multimodal metalanguage has also been generated, in response to the prompts.

Table 14.4 shows the linguistic resources from the text of Rosie’s Walk (Hutchins, 1968) as well as prompts which draw attention to each of the dimensions of meaning. These are accompanied by “possible metalanguage” related to the linguistic mode.
Table 14.4 Engaging with Linguistic Resources

The linguistic resources (32 words in total) describe the uneventful journey of a hen as she walks around a farmyard.

<table>
<thead>
<tr>
<th>Critical Questions</th>
<th>Possible Linguistic Metalanguage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Representational:</strong> What’s happening in the words of this text? What do the words tell us about?</td>
<td><strong>Representational:</strong> Recount of a journey. Character: Rosie: a hen. Actions: walking. Circumstances: various farmyard places, mill, pond, etc. (book: written words, animation spoken words)</td>
</tr>
<tr>
<td><strong>Social:</strong> How did you feel when you heard the words of the story? What in the words made you react like that?</td>
<td><strong>Social:</strong> One sentence narrative recount, detached third person, past tense, economical use of words</td>
</tr>
<tr>
<td><strong>Organizational:</strong> How do the words hang together? How does it start?</td>
<td><strong>Organizational:</strong> Sentence begins with a noun phrase with character and species in theme position, verb phrase the process she undertook, followed by three word prepositional phrases.</td>
</tr>
<tr>
<td><strong>Contextual:</strong> What are the words like? Do you know of other words put together like these?</td>
<td><strong>Contextual:</strong> sentence beginning acts as an orientation, each phase “poetic” in its succinct description; uneventful; no plot complications</td>
</tr>
<tr>
<td><strong>Ideological:</strong> What was the writer trying to make you think about Rosie? (The fox?)</td>
<td><strong>Ideological:</strong> hen positioned as purposeful, safe, and oblivious. Linguistic (written words in book and narrated in animation) fail to mention stalking fox’s harmful attempts omitting plot complications and resolutions</td>
</tr>
</tbody>
</table>
Table 14.5 briefly describes the role of visual resources from the same text as well as prompts which draw attention to each of the dimensions of meaning. These are accompanied by “possible metalanguage” related to the visual mode, including still and moving images.

Table 14.6 briefly describes the audio from the same text, as well as prompts which draw attention to each of the dimensions of meaning. These are accompanied by “possible metalanguage” related to the audio mode.

While the dimensions-of-meaning schema was deployed as an analytical tool in the professional learning research project on which this chapter draws (Cloonan, 2008a), Tables 14.4–14.6 show the schema's potential as a pedagogical tool when used in conjunction with the multimodal schema. Consideration of dimensions of multimodal meaning may deepen knowledge of systems and structures, and broaden cross-cultural knowledge of modes. Questions about dimensions of meaning could generate multimodal metalanguage which could increasingly form the basis of a functional grammar. Such considerations would not include rules of correct usage that teachers might have students learn. Rather, they are concepts teachers and students can use to assess the reasons why particular design choices are made in particular cultural and situational contexts.

In this project, it was found that teachers' attempts to develop multimodal metalanguage lacked specialization of terms and a systematic framework. However, teachers offered rich examples of student-friendly language which addressed dimensions of meaning across linguistic, visual, audio and gestural modes.

Activity: Teaching the Dimensions of Multimodal Literacies

Again reflect on the sequence of lessons you have taught. Using Table 14.3, identify the dimensions of multimodal meaning you emphasized in this sequence. Notice the dimensions you addressed and those you didn't. Using Table 14.3 as a guide, suggest lesson foci which would address all dimensions of meaning.

Conclusion

Increasingly removed from the word-centered era of print literacy, contemporary communication is characterized by multimodality in which written text is increasingly interconnected with visual, audio and other modes of meaning. This shift requires new literacy educational responses. Students need to learn to “read” and create the new multimodal designs and to find ways to cross discourse borders.

This chapter has described changes in early-years literacy pedagogies in response to the complex changes brought about by digital technology. The pedagogical shifts were a result of teacher engagement with theory within the context of a professional learning research project. Within this reflective context, the multimodal schema influenced teacher choice of the modes of meaning addressed as part of literacy teaching. The pedagogical-processes schema influenced teacher
Table 14.5 Engaging with Visual Resources

The visual resources not only illustrate the events described in the linguistic resources; they depict an additional character (a fox) surreptitiously preying on the hen, although all attempts to harm her are unsuccessful and amusing.

<table>
<thead>
<tr>
<th>Critical Questions</th>
<th>Possible Visual Metalanguage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Representational:</strong> What's happening in the (moving) images? What are the (moving) pictures about?</td>
<td><strong>Representational:</strong> Two main characters, a hen walking and a fox stalking, and elements such as coop, buildings and lake denote circumstances as a farm. <strong>Book:</strong> still images; <strong>Animation:</strong> edited stills images; animated images and images involving lens and camera movement such as pans, zooms and dollys show a hen's journey around a farmyard oblivious to a fox's harmful attempts</td>
</tr>
<tr>
<td><strong>Social:</strong> How did the (moving) images make you feel? What in the (moving) images made you react like that?</td>
<td><strong>Social:</strong> The shot angles are predominantly at eye level, although fox is positioned higher on the page as it prepares to jump, lower following failed attempts. The shots are mainly offers, rather than demands with character gaze directed within the text</td>
</tr>
<tr>
<td><strong>Organizational:</strong> How did what you saw hang together?</td>
<td><strong>Organizational:</strong> Rosie's steadfast left to right march around the farm forms the main reading path for these images. Her profiled body, particularly her feet and crest provide strong left to right vectors, supported by the vectors of the fox's eyes</td>
</tr>
<tr>
<td><strong>Contextual:</strong> What are the images like? Do you know of other images put together like these?</td>
<td><strong>Contextual:</strong> pen and ink drawings with heavy use of line, dots and patterns are reminiscent of colonial cross-stitch</td>
</tr>
<tr>
<td><strong>Ideological:</strong> What are the illustrator and animator trying to make you think about characters? Why do you think they wanted you to think this?</td>
<td><strong>Ideological:</strong> humanizes characters positioning hen as oblivious, naive (or perhaps clever) and fox as bad (although hapless) rather than an animal hunting for food. Safety and humor obvious despite predatory themes</td>
</tr>
</tbody>
</table>
Table 14.6 Engaging with audio resources

<table>
<thead>
<tr>
<th>Critical Questions</th>
<th>Possible Audio Metalanguage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Representational:</strong> What's happening in the sounds? What sounds did you hear? Who and what do the sounds tell us about?</td>
<td><strong>Representational:</strong> Audio journey of repetitious cycles with narrated words, music, sound effects. Narrator (mid West American accent); Music (banjo, violin, string bass); sound effects (percussion)</td>
</tr>
<tr>
<td><strong>Social:</strong> How did characters feel? What in the audio makes you think that? How did you feel when you heard that section? that instrument? that sound effect?</td>
<td><strong>Social:</strong> Major key. Invites optimism. Quadruple (4/4) beat denotes a march. Invites an evenly rhythmic foot-tapping or hand-clapping response. Cycles build to climax/resolution</td>
</tr>
<tr>
<td><strong>Organizational:</strong> How did what you heard hang together? What did you hear first? Then what?</td>
<td><strong>Organizational:</strong> Informal tuning up of violin; Narrator introduces title; Laughter; Violin solo introduction; Verse: banjo carries melody; string bass accompaniment; Chorus: violin carries melody with string bass. Repetitive structure of verse and chorus</td>
</tr>
<tr>
<td><strong>Contextual:</strong> What was the music like? Do you know of other sounds put together like these? What do these sounds mean for the story?</td>
<td><strong>Contextual:</strong> Laughter foreshadows comedy. Mid-West American accent and use of string instruments (violin and banjo) and marching beat (string bass) denotes hillbilly or country and western style</td>
</tr>
<tr>
<td><strong>Ideological:</strong> What did you think the audio designer was trying to make you think about Rosie?</td>
<td><strong>Ideological:</strong> Constant, prominent bass line and banjo melody depict Rosie (hen) as steadfast, focused and safe in undertaking walk around the farmyard. Sound effects accompanying fox’s failures emphasize humor and safety.</td>
</tr>
</tbody>
</table>
choice as to how students engaged with various textual designs, through knowledge processes of experiencing, conceptualizing, analyzing and applying. Broad curriculum goals and teacher choices of mode and pedagogy formed the context for the development of a multimodal metalanguage. Applications of the schemas were context-specific, allowing teachers to design learning attuned to the learning needs of their students.

The schemas presented are instruments of inclusion and enablement – inclusion in the sense of starting with and respecting the experiences, languages and discourses of students, and enablement in the sense of providing learning experiences through which students will be able to access the most powerful contemporary forms of self-expression and communication.

Teacher generation of a multimodal metalanguage or grammar occurs within the context of literacy pedagogy and broad curriculum goals. The variation in pedagogical contexts affects the teaching and learning direction of multimodal metalanguage, as teachers design sequences of learning experiences to meet specific situational needs and objectives. The diversity presented by the learners in any particular cohort will indicate entry points and learning needs for designs of literacy pedagogy.

The development of an accessible, pedagogically context-friendly, multimodal metalanguage remains an urgent research agenda. It is apparent that teachers have not yet moved to technical ways of describing the multimodal, such as those grammars described by Kress and van Leeuwen (1996), Martinec (1999), Unsworth (2006) and van Leeuwen (1999). This is perhaps not surprising given the relative newness and the emergent nature of theoretical schemas which offer specificity of articulation, particularly in relation to the visual (Kress & van Leeuwen, 1996); and the paucity of advice available, particularly in relation to the gestural (Martinec, 1999), audio (van Leeuwen, 1999) and spatial (van Leeuwen, 2006) modes. Questions remain as to what levels of technical language to describe the multimodal is appropriate for students at various stages of schooling.

The pedagogical knowledge-processes and multimodal schemas enable teachers to create classroom literacy experiences which engage students with an expanded range of text-types. Used in conjunction with these, the dimensions-of-meaning schema offers rich potential for enabling descriptions of the features and functions of multimodal texts within the classrooms context. Research partnerships, with teachers engaging with theoretical schemas and researching and reflecting on their own practice, offer exciting possibilities in developing pedagogically context-friendly, multimodal metalanguage.

References


