Building a pedagogic metalanguage II: knowledge genres

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Language is unique among cultural processes in the extent to which it remains below the level of consciousness (MAK Halliday 2012:78)... What isn’t perhaps quite settled is the issue to what extent it’s productive to formalise the kind of knowledge that everyone has - to make it overt, to make it explicit, to bring it into consciousness rather than leaving it somewhat beyond consciousness, and whether knowledge of that kind can help, let’s say first of all, the teacher, who’s charged with the responsibility of advancing the skills and knowledge of students, and secondly perhaps whether it can even be of use in helping students change their skills - their command and mastery of language (Gunther Kress, in Halliday 2012:137) ...what the school requires is for you to bring language back to consciousness. There’s no way to avoid this, partly because you have to do this in learning to read and write. Becoming literate means reflecting consciously on your language (Halliday 2012:138).

0. Introduction

This is one of a pair of papers that offer a set of suggestions for providing teachers with knowledge about language (KAL) that they can use in their practice. The term pedagogic metalanguage refers to this knowledge, including the technical terms that are used to discuss language in teacher training and in the classroom. The suggestions derive from a long-term, large-scale project in teacher education, known as Reading to Learn (R2L) (Rose 2015a, Rose & Martin 2012). This paper focuses on metalanguage for discussing knowledge genres; its companion paper (Rose, this volume) focuses on metalanguage for curriculum genres. It is argued there that a pedagogic metalanguage is doubly recontextualised – first from the contexts of linguistic and educational research to the contexts of teacher education, and then to the contexts of classroom teaching. In genre and register theory (Martin 1992, 2007, 2013, Martin & Rose 2007, 2008), social contexts are analysed at two levels, as variations in register (field, tenor, mode) and in genres that configure these register variables (as modelled in Figure 1).
0.1 Realisation and instantiation

The model in Figure 1 needs a little expansion at this point, to contextualise the R2L approach to metalanguage for knowledge genres. Firstly, the circles model a hierarchy of realization – of genre realised as register, realised in turn as discourse, grammar and phonology/ graphology. At the same time, each stratum needs to be interpreted both in terms of systems of potential resources for meaning and their instantiations as actual texts. These two perspectives (of inter-stratal realisation, and intra-stratal instantiation of systems as text) are symbolised by arrows in Figure 2.

Patterns of meaning at each stratum are co-instantiated in a text, with each stratum contributing a layer to the whole meaning of the text. The contribution of genre includes the
global organisation of texts oriented to distinct social goals, instantiated as sequences of text stages (Martin & Rose 2008, Rose 2006). Generic organisation weaves together patterns of register, including the fields that constitute curriculum knowledge (Martin in press a, Martin & Matruglio 2013), patterns of tenor through which knowledge is negotiated and evaluated (Hood 2006, 2010), and patterns of mode that structure the school’s curriculum sequence – from more spoken patterns in early years to highly written forms in the senior secondary (Christie & Derewianka 2008, Rose 2010), alongside other modalities (Dreyfus, Hood & Stenglin 2010, O'Halloran 2005, Painter, Martin & Unsworth 2013).

Discourse systems contribute semantic patterns that directly realise patterns of register in texts. In general terms, fields of activities involving people and things are realised by figures and chains of lexical items (IDEATION) related by CONJUNCTION; the tenor of social relations is realised by exchanges in NEGOTIATION and prosodies of APPRAISAL; and modes of meaning are realised by waves of information (PERIODICITY) and strings of reference (IDENTIFICATION) (Martin 1992, Martin & Rose 2007). Grammar contributes patterns of words in sentences that instantiate grammatical systems (such as TRANSITIVITY, MOOD and THEME (Halliday 1994/2004)). But grammatical structures also realise discourse semantic patterns as clauses, word groups and words. That is, the relation between discourse and grammar is both realisational and co-instantial. Grammatical structures instantiate grammatical functions, and simultaneously realise discourse functions as wordings. In other words, any clause or word group presents two levels of meaning simultaneously: grammatical meanings such as process, participant and circumstance (TRANSITIVITY), and discourse semantic meanings such as events, people and things (IDEATION), their identities (IDENTIFICATION) and evaluations (APPRAISAL).

Critically, while grammatical structures realise discourse features that directly realise register patterns, the relation between grammatical functions and register is indirect. For example, the experiential meanings of lexical items as people and things are more immediately recognisable than grammatical functions of nominal groups, as types of participation in process types (TRANSITIVITY). Or the interpersonal meanings of clauses as stating, questioning or commanding are more directly comprehensible than their grammatical functions as indicative or imperative mood. Because they directly realise register, discourse meanings are more accessible to commonsense – whereas to identify grammatical functions one must first learn about the systems they are part of.

We can thus expand on Halliday’s point in the preamble above, about ‘the extent to which [language] remains below the level of consciousness’. It is the organisation of grammatical systems and their features that lie furthest from consciousness. Discourse features are more accessible to consciousness because they directly realise the ‘cultural processes’ of which we are most consciously aware – fields of social activity and the tenor of social relations. Because the aim of R2L is to teach reading and writing, the approach to metalanguage begins with patterns of register, and focuses on the discourse patterns that realise them. This is not the usual approach to recontextualising SFL as metalanguage in literacy programs, discussed as follows.
0.2 Recontextualising knowledge about language

In the terms developed above, recontextualisation means re-instantiating patterns of meaning at each stratum, from one text to another (Martin 2006). Recontextualisation is the process whereby academic metalanguage is re-instantiated from linguistics courses and textbooks to teacher training and again to lessons in schools. In terms of register, this involves major shifts in the density of meanings or ‘mass’ (technicality of knowledge, condensation of values and aggregation of meanings as discourse unfolds) and in context dependency or ‘presence’ (congruence with everyday experience, negotiability of knowledge and implicitness of meanings) – as aggregated in Table 1 (following Martin in press a, Martin & Matruglio 2013).

<table>
<thead>
<tr>
<th>Table 1: Register variables and recontextualisation</th>
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<tbody>
<tr>
<td><strong>field</strong></td>
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<tr>
<td><strong>mass</strong></td>
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<td><strong>presence</strong></td>
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At the level of genre, knowledge and values are re-instantiated from one genre to another – from the knowledge genres of academic description and argument to the curriculum genres of teacher training and classroom practice. The curriculum genres of academic programs are implicit in the design of their knowledge genres (in the textbooks and articles organised for independent reading, elaborated by oral interpretation in lectures and tutorials and assessed through independent writing). Although these pedagogic activities are actually highly proceduralised, they are evolved rather than designed anew by academic practitioners, who acquire them tacitly in institutional experience.

When academic metalanguage is recontextualised for teacher training courses and textbooks, mass is reduced, and presence increased; but similar knowledge and curriculum genres are used. The growing range of teacher textbooks about functional grammar re-instantiate the systems described in the academic canon, with less technicality, but similar organisation of systems (for example mood and modality, transitivity and theme, illustrated with text examples and analysis activities). The systems are studied in teacher training courses, and applied to the linguistic activity of parsing text examples, but with more support than in academic linguistics (i.e. more presence). These activities may then be recontextualised for the classroom, with still less mass and more presence. For example, one popular activity is guiding primary students to parse sentences by marking basic transitivity functions with coloured highlighters (Derewianka & Jones 2012), or cutting up sentences on paper strips into their transitivity functions (Williams 2000).

Like the grammar/register relation, the relation between these activities and the goals of teaching reading and writing is indirect. It is expected that knowledge about functional grammar will ultimately help children to learn and demonstrate curriculum knowledge through written language. A similar assumption underlies traditional language pedagogies – namely that by teaching the grammatical structures of classical and modern languages, linguistic analysis skills transfer to other learning tasks. Although grammar is explicitly
taught, the transference depends on students intuitively applying these skills to register and discourse patterns. The approach clearly works for many students, as attested by the longevity of the practices; but is less effective for other students. Teaching functional grammar takes a further step in explication, as grammatical functions are brought to consciousness, along with the structures that instantiate them. This functional metalanguage is then expected to be applied in reading and writing activities, for discussing selected language features in knowledge genres. The curriculum sequence begins with studying grammatical systems, that are then applied to text analysis, mirroring the evolved curriculum sequence of academic linguistic training.

This type of recontextualisation from linguistic theory and language teaching tradition to teacher training and classroom teaching contrasts with the design of genre writing pedagogy. Genre writing pedagogy started from the other direction, with the texts that are highly valued in schools; it then developed text analyses and a curriculum genre for teaching them – the ‘teaching/learning cycle’ or TLC (Martin 2000, Rose 2008, 2011, in press a & b, Rose & Martin 2012). This type of recontextualisation integrates the analysis of knowledge genres with the design of new curriculum genres. The sequence of analysis and design begins with identifying the types and organisation of knowledge genres, and builds a metalanguage of terms for texts and their staging that is deliberately appliable for teaching in schools. These terms are then used in the classroom to deconstruct the staging of model texts, and applied again as the class jointly constructs texts with the same stages, and again as students independently construct texts of their own. The design of metalanguage is informed by linguistic analysis, but is shaped by pedagogic application. This was also the approach taken by Halliday and colleagues in designing the literacy programs *Breakthrough to Literacy* and *Language in Use* in the 1960s. Halliday explains that at that time, “no teacher would stand it for a moment if you said you had to teach any grammar. It was out and that was it” (1986, in 2012:121; cf. Halliday & Hasan 2006). Rather, teaching materials at that time were designed to focus on patterns of register in curriculum texts (cf. Doughty et al. 1971, Pearce et al. 1989).

**0.3 Designing metalanguage for teaching tasks**

As with genre writing pedagogy, the starting point for building a metalanguage for knowledge genres in the R2L program is with the pedagogic tasks of reading and writing them. Alongside constructing successful texts for evaluation, these tasks include engagement with curriculum texts, detailed comprehension of their fields, recognition of authors’ language choices and appropriating these resources for writing.

More specifically, engagement with written texts includes comprehension of their fields, pleasure in literature, interest in new knowledge, negotiating positions in arguments, and facility in reading texts to make engagement possible. Detailed comprehension is necessary to recognise and engage with the intricacies of literary writing, to interpret technical and abstract fields and respond critically to persuasive devices in arguments. Recognition of authors’ language choices depends on detailed comprehension, and is in turn necessary for appropriating these resources into one’s own writing. In Table 2, knowledge genres are grouped in three clusters according to their primary social purposes: engaging readers in stories, informing readers in factual texts, and evaluating issues, positions and texts in
arguments and text responses. Curriculum fields are generalised for each cluster, along with the focus of tenor in readers’ engagement and some discourse patterns focused on in reading and writing.

**Table 2: Foci of reading and writing tasks by genre, register and discourse patterns**

<table>
<thead>
<tr>
<th>genre</th>
<th>field</th>
<th>tenor</th>
<th>discourse patterns</th>
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<tbody>
<tr>
<td>stories</td>
<td>plots, settings, characters,</td>
<td>pleasure in literature,</td>
<td>literary devices for engaging readers and encoding</td>
</tr>
<tr>
<td></td>
<td>themes</td>
<td>judgements of characters</td>
<td>themes</td>
</tr>
<tr>
<td>factual texts</td>
<td>knowledge of social and</td>
<td>interest in knowledge</td>
<td>structuring of knowledge, using abstraction and</td>
</tr>
<tr>
<td></td>
<td>natural worlds</td>
<td></td>
<td>technicality</td>
</tr>
<tr>
<td>arguments &amp; text</td>
<td>issues, positions, analyses,</td>
<td>negotiation of positions</td>
<td>structuring of arguments and evaluation</td>
</tr>
<tr>
<td>responses</td>
<td>analyses, critiques</td>
<td>(critical evaluation)</td>
<td></td>
</tr>
</tbody>
</table>

Although Table 2 is a crude summary, these are broad terms in which teachers commonly understand their curriculum goals. Their goals include students comprehending the field of stories, experiencing pleasure in reading them and interpreting their moral themes, recognising the diverse literary devices that authors use to engage readers and encode themes and appropriating these devices to write their own stories. For factual texts, their goals are for students to build knowledge of the social and natural worlds in their curricula, to be interested enough in new knowledge to study collaboratively and independently, to recognise the structuring of knowledge and patterns of technical and abstract language in curriculum texts, and use these in their writing. With arguments and text responses, students need to understand the issues discussed, positions taken, and analyses and critiques of texts – in order to critically evaluate them and negotiate their own positions, and to recognise and use the structuring of arguments and the evaluative language devices that authors use to negotiate.

The R2L program includes a set of curriculum genres designed to teach these tasks. Preparing for Reading is designed to engage students in curriculum texts; Detailed Reading and Joint Rewriting are designed for detailed comprehension, recognition and appropriation of language resources. Planning and teaching of these curriculum genres involves analysis of knowledge genres at the levels of genre, register, discourse and grammar. But these analyses are not independent of the pedagogic activities in which they are delivered. They are not merely linguistic analyses of features of texts, but of the conversation that teachers will have about them with their students. They are informed not only by the knowledge genres of linguistic theory, but by the curriculum genres of classroom practice.

Two issues arise from this approach. One is that current SFL descriptions are insufficient to provide an adequate metalanguage for these analyses. Despite extensive research on grammatical, discourse semantic and genre systems, descriptions of register systems remain underdeveloped – even though they are central resources for teachers’ analysis and teaching tasks. Along with systems of register across school curricula, descriptions are also needed of the common patterns in which registers are instantiated as discourse and grammar structures. Work in this direction has included Halliday & Martin 1993, publications flowing from the Write it Right project of the 1990s (e.g. Christie & Martin 1997, Cope & Kalantzis 1993, Iedema et al. 1994, Martin & Veel 1998, Rose et al. 1992), and more recent
work (e.g. Christie & Derewianka 2008, Coffin 2006, Martin in press a, Martin & Matruglio 2014). However a systematised description of registerial patterns across school curricula remains a distant goal. Secondly, only a fraction of SFL’s rich descriptions of grammar and discourse systems are essential for teachers’ practice. Much of their detail is only marginally useful for classroom teaching, despite the semiotic labour required for teachers to learn and recontextualise it for their practice (Macken-Horarik, Love & Unsworth 2011). This is a factor in the reduction of technicality in SFL books and courses for teachers; but these recontextualisations of linguistic theory reproduce the disjunctions between theoretical descriptions and teachers’ tasks. As a result, teachers who have studied such courses often have great difficulty recalling their detail, and applying it in their practice.\(^2\)

In short, the metalanguage provided by current SFL theory is both too much for teachers to have to learn, and too little for teaching the registers of their curricula. Designing a pedagogic metalanguage that can be more effectively learnt and taught requires decisions about what needs to be brought to consciousness, and what to leave to teachers’ and students’ intuition – ‘leaving it somewhat beyond consciousness’ as Kress suggests in the preamble above. What must be brought to consciousness as far as possible are the patterns of register instantiated in curriculum texts, so that teachers can draw students’ attention to them and discuss their significance. Useful linguistic knowledge for recognising these patterns includes the grammar and discourse structures in which they are instantiated. What is less essential are the linguistic systems realised by these structures. These systems are the focus of conscious attention for linguists, while the registerial systems they realise are left in the background. In order to attend consciously to classification of language features, linguistic analysis requires register to be processed more or less unconsciously. Conversely, teaching curriculum registers requires linguistic classifications to be backgrounded – in order to attend to registerial patterns.

### 0.4 A professional learning program for building metalanguage

Alongside being useful for their teaching, pedagogic metalanguage must also be designed for teachers to learn it. Its design cannot be divorced from the classroom curriculum genres in which it is applied, but nor can it be divorced from the curriculum genres of teacher training in which it is learnt. The R2L literacy methodology is a program of classroom curriculum genres; but the R2L professional learning program is also a sequence of curriculum genres – a curriculum macrogenre designed to train teachers in pedagogic metalanguage (Rose, this volume). For these reasons, the description of metalanguage in this paper does not simply reproduce the classifying report genres of linguistic description. Rather it is organised as a meta-procedure for training teachers in the metalanguage. The organising principles of this text and its constituent procedures are the stratified model of text in context in Figure 1 and the Prepare-Task-Elaborate cycles of pedagogic activity in Figure 3. In Bernstein’s terms these are recontextualising principles (i.e. ‘principles of selective reordering and focusing’ (2000:173)) by which knowledge about language is re-instantiated from linguistic classifications to pedagogic procedures. This recontextualisation at the level of genre is intended to maximise the theory’s appliability, not only for teachers designing classroom practices, but for teacher educators designing training programs, and for researchers designing pedagogic theories.
The professional learning program begins by negotiating the learning and language models with teachers, by technicalising their commonsense intuitions about language and learning in cycles of interaction and elaboration (Rose, this volume). It then unfolds in four macro-phases, each of which starts from register and builds new knowledge about language, upwards to genre, and down to discourse, grammar and graphology (spelling, punctuation).

The first macro-phase leads teachers from register to genre, from the fields of curriculum texts to the genres they realise. Metalanguage introduced in this phase includes the names of genres, their staging, and the phases in which a field unfolds through a genre – the plots of story genres, curriculum knowledge in factual texts, issues, positions and evidence in arguments. This phase prepares teachers to practise Preparing for Reading and Joint Construction with their students. The second macro-phase leads from genres and fields of curriculum texts to fine-grained analysis of register in text passages. The focus of explicit metalanguage in this phase is on designing learning cycles; but teachers are also guided in detailed analyses of the patterns in which register unfolds through reading texts. This prepares teachers to practise Detailed Reading and Joint Rewriting, along with Intensive Strategies. The third macro-phase then moves from this close reading of patterns of register to the grammatical structures that realise them. Practice with detailed analysis of reading texts prepares teachers for explicit grammatical analysis, using the metalanguage of functional grammar. This sequence maximises the intelligibility and usefulness of grammatical knowledge for teachers. The fourth macro-phase once again leads from patterns of register in curriculum texts to the discourse patterns that realise them, and back up to the genre structures they realise. Teachers’ prior experience with analysing and teaching texts supports them to recognise patterns of information, reference, conjunction, lexis and appraisal, and the value in explicating them for students. Learning trajectories from register to other strata are diagrammed for each macro-phase of the program in Figure 4. 3
1. Learning knowledge genres by practising curriculum genres

The first macro-phase of the program introduces teachers to the classification and structuring of knowledge genres through guided analysis of register patterns. This is achieved by practising a series of curriculum genres that involve deconstructing and jointly constructing knowledge genres. The focus of deconstruction is on how the register unfolds through a genre, culminating with naming its stages and phases, and using this metalanguage to construct a new text. Stages of a genre are stable patterns of organisation, predictable from the primary social purpose of a text. Phases are more variable patterns in which the register unfolds through each stage, often expressed as paragraphs. Analysis and labelling of phases gives teachers explicit tools for analysing and teaching the register patterns of their curricula, connecting with their existing perspectives on their subjects and teaching goals.

1.1 Practising Preparing for Reading and Joint Construction

The starting point is with the structuring of register and genre in a section of a secondary school science textbook. This is chosen because the field challenges the existing knowledge of most teachers, and so demonstrates for them the effectiveness of Preparing for Reading and Joint Construction. On the other hand, the register and genre structures of this field are relatively predictable, which facilitates their generalisation as metalanguage.

Preparing for Reading involves two steps from register to genre. The first step is an overview, that briefly summarises the field of each sub-heading in the textbook section, supported by discussion of accompanying images. This brings to consciousness the overall structuring of the field in terms accessible for all students. The second step briefly previews each paragraph in turn, before it is read aloud, and then reviews the paragraph by highlighting and discussing key information. This paragraph-by-paragraph reading explicates the details of the field unfolding through each phase of the text. The spoken overview of the text and preview of each paragraph reduce mass and increase presence, thereby enabling students to attend to the field in manageable steps.
Joint Construction involves a further two steps from register to genre, including note making from the source text, and construction of a new text from the notes. Note making re-instantiates the highlighted information as notes that students take turns to scribe on the board and dictate from the text. This reinforces students’ control of elements of the field, and extends it through discussion of elements. The structuring of the field is then made fully explicit by labelling the functional phases of the notes (for example phases that classify or describe entities and their parts). Joint Construction re-instantiates the information in the notes as a new text that the teacher guides the class to construct, using the labels to structure the text. The genre is then formally named, and labelled with its stages and phases. Again, these activities reduce mass and increase presence thereby enabling students to attend to both register and language choices, as they write the notes and the new text.

The concepts of genre and staging thus emerge from the structuring of a curriculum field as it is negotiated multimodally, simultaneously modelling the practice for teachers to use with their students (see demonstration lesson videos at BOSTES 2014, Rose 2015). Throughout these activities, attention is continually drawn to discourse and grammar patterns through which the register is instantiated, but they are formally named only when essential, using words familiar to most teachers, such as sentence, noun, verb, conjunction, technical term.

Genre and register knowledge is then extended to types of stories, their stages and phases. Story phases, such as settings, problems, solutions, characters’ reactions and descriptions, are the basic building blocks that authors use to construct imaginative, engaging plots (Martin & Rose 2008, 2012, Rose 2005, 2006). Teachers are generally familiar with the Orientation, Complication, Resolution structuring of narratives, but they are guided to recognise the phases in which the plot of a particular story unfolds. The plot is first re-instantiated as a brief oral summary of its phases, and the story is read aloud. Teachers are then guided to deduce the technical names for each phase, by generalising the particular steps in the plot. For example, unexpected events are labelled ‘problem’, expressions of emotion are labelled ‘reaction’. Tension may be built in a Complication through a series of worsening problems and reactions. Following this deconstruction, new characters, settings and events are discussed, and the same sequence of phases is then re-instantiated in a joint construction using this new field. Where joint construction of factual texts re-instantiates the same field in a new text, joint construction of story texts re-instantiates the same phasal structuring with a new field.

Borrowing the instansitual phasal patterns of a story by an accomplished author is a first step in showing teachers and students how to appropriate sophisticated literary resources, from reading into their own writing. Naming story phases is the first step in building a metalanguage for these literary resources, making explicit what must otherwise be recognised and created intuitively. By negotiating general categories from concrete instances in model texts, the technical terms transparently denote recognised functions and are personally valued by teachers. It should be noted that this approach differs from earlier approaches to joint construction, which identified only the stages of model texts, along with selected grammatical features characteristic of the genre. This earlier approach focused on generalising genre and grammar features from model texts, rather than borrowing their instansitual patterning. This has proved effective for learning genres and their staging, but
R2L’s instantiel approach provides more support for appropriating sophisticated literary resources.

Types of arguments and text responses, and their structuring, are then introduced using the same techniques of deconstruction and joint construction. Using the same strategy of generalising from instantiel register patterns in model arguments, teachers are guided to deduce functional names for their introduction, body and conclusion stages (Thesis, Arguments, Restatement; Issue, Sides, Resolution). They are then guided to identify the phases within these stages – introductions minimally include a position or issue statement and preview of the arguments; bodies include a sequence of arguments or sides of a debate, and each paragraph includes a topic and elaboration, with various options for elaborating; conclusions include a review of the text, and a restating or resolving sentence. New arguments are then jointly constructed following the same phases with new issues and positions. The technique is also practised with text responses, deconstructing the stages and phases of model interpretations, and using the same phases to jointly construct new responses about different literary texts.

Finally, genre/register relations are explicated for procedures. Teachers first identify various curriculum activities involving procedures. They are then guided to recognise the procedural structuring of mathematics teaching (whereby each type of maths algorithm involves sequences of steps, that teachers model by demonstrating with worked examples). The complexity of learners’ tasks, in following and remembering these elaborate oral procedures, is thus brought to consciousness, and teachers come to recognise why some students are less able than others to apply the procedures successfully with their maths problems. This counters the pervasive notion of innate ‘maths abilities’, which detracts attention from the development of more effective teaching practices (Rose & Lovstëdt 2011). The solution is for teachers to plan the precise wordings they will use to explain each step in the algorithm, and demonstrate it using these wordings. The activity is repeated with other worked examples, with the teacher asking students to say each step, and adjusting their responses to the planned wordings. The procedure is then jointly constructed on the board (see demonstration lesson videos at BOSTES 2014, Rose 2015). This is particularly effective for teaching maths algorithms, but may be used with any type of proceduralised activity.

The detailed structuring of the field unfolding through a procedure is made conscious for teachers by jointly constructing a lesson plan for a maths algorithm. The lesson plan consists of steps in the procedure, questions to ask of students at each step, and steps in a worked example that will be written on the class board. Teachers are guided to precisely identify the wordings required for each step in the procedure, which are written as generalised commands. Questions are then designed for students to identify particular values in the example problem, for the general categories in each step. For example, a step may be ‘Write the second number under the first number’, for which the question will be ‘What is the second number?’ These values are written for each step in the third column.

Each of these teacher training curriculum genres uses the strategy of identifying instantiel register patterns in a particular text, and then generalising them to label the stages and phases of knowledge genres. The activities for factual texts, stories, arguments and text
responses simultaneously introduce teachers to this knowledge about register and genre, and model the classroom curriculum genres that teachers will use with their own students. The activity for procedures models the lesson planning genre, but leaves the classroom curriculum genre for teachers to practise themselves. In terms of presence, the strategy cycles between here-&-now instances and abstract semiotic categories, between negotiated activity and factual knowledge, and between implicit reference to shared texts and explicit categories of theory.

1.2 Identifying knowledge genres

Introducing the concepts of genres, their stages and phases through negotiated practice prepares teachers to identify the primary knowledge genres across school curricula. They are presented with the taxonomy in Figure 5, which is presented as a map of the kinds of texts that students are expected to read and write in school. This diagram is the starting point for teachers’ lesson planning, which entails identifying the types of text they have selected for reading or writing tasks.

Figure 5: A typology of knowledge genres for teachers

This network of relations is re-instantiated orally ('unpacked') as a series of choice points or questions, prepared by increasing presence and decreasing mass. The key question for teachers is the primary social purpose of texts, from which the groupings, names and
language focus of genres emerge. The purpose of stories is to engage and entertain readers, so the teaching focus is on language that authors use to engage the interest and emotions of readers. News stories are included because they engage readers with a ‘lead’ event and headline which are then discussed from various angles – so in fact these text jump around in time. Some key questions include: If a story is sequenced in time, is it organised around a major complication? If so is it resolved? If not, is its primary purpose to share feelings or judge character?

The primary social purpose of factual texts is to inform, so the teaching focus is on their patterns of information. Chronicles are sequenced in time, but time is punctuated as stages of a life or historical period, rather than the event-to-event unfolding of a story. Explanations introduce cause and effect, including cause/effect sequences, multiple causes for one outcome, multiple consequences from a single cause, and variable effects from various conditions. Reports classify and describe natural and social things, including single things, types of things, and parts of wholes. The procedural family includes procedures, such as instructions and maths algorithms, protocols that are not time-sequenced such as rules and warnings, and recounts of procedures, such as experiment reports, case studies or research articles. Thirdly, the teaching focus for arguments and text responses is on the evaluative language that authors use to evaluate texts, issues and points of view. Arguments may argue for one position, or discuss two or more positions. Responses may express personal feelings, evaluate a text, or interpret its literary themes and artistic techniques.

Approached in this way, from fields that are familiar to teachers, each genre system is recognizable; so the initially daunting technicality of Figure 4 is reframed as simply organising and naming what they already know and do intuitively. The task is then elaborated by teachers reading a brief description of the genre system, thus decreasing presence and increasing mass. By these means, teachers’ intuitive knowledge about genres is brought to consciousness and technicalised using a visual text (preparing) and aggregated in a written text (elaborating). In terms of values, the genre network in Figure 4 is valorised as a map of their own practices, and as their starting point for lesson planning. It becomes another bonding icon in the R2L program and in their professional practice.

1.3 Analysing genre and register

Following this overview, teachers’ genre knowledge is extended by identifying model texts in each genre family, using register criteria to prepare the tasks of identifying their stages and phases, elaborating the framework with technical terms and generalising register patterns. The first group examined is stories. The analyses of story phases in a range of exemplars shows how authors deploy them as building blocks for constructing plots that are imaginative, engaging and potentially symbolic of underlying moral themes. Narrative exemplars illustrate variations in building tension through series of mounting problems, intensified with characters’ reactions, suspended as people, things or places are described, and released with solutions. Other exemplars are extracted from adult novels to illustrate how moral themes are developed through evaluative phases (reactions, comments, reflections), providing explicit analyses for identifying and interpreting such literary themes. Children’s picture books are analysed to show how patterns such as setting, problem,
solution are repeated and varied through a series of episodes, illustrating how authors use predictability as a springboard for novelty.

As the fields of factual texts tend to be the organised structures of academic knowledge, their phases are generally more predictable. The starting point is biographies, as their fields are specific and non-technical, and their structure is fairly regular. An Orientation typically presents the person’s birth date and place, their early life, family and fame; this is followed by a Record of their life, in which each text phase typically presents a life stage. Once this structuring is recognised in biographies, it is easy to see similar patterns in historical recounts, which begin with the historical Background of an event or institution, followed by a Record in which each text phase typically presents a temporal stage in the history. This analysis illustrates relations between the structuring of curriculum fields familiar to teachers, such as historical stages, and the structuring of genres, as generic stages and phases.

Genre/knowledge relations are then extended to the causal logic of explanations. In a sequential example, teachers identify the phenomenon being explained (which may be a technicalised process in natural or social sciences) and then label the steps in the explanation sequence. In the factorial example, they identify the outcome being explained, and its causal factors. In the consequential example, they identify the cause and its various consequences. And in the conditional example, the various alternative conditions and effects are identified. The staging of each type is named simply as Phenomenon and Explanation, but with phases differing between each type.

Analysis of reports begins with a descriptive report about a type of an animal, in which phases such as appearance and behaviour are identified; this is then compared with typical phases in other fields, such as population and topography in geographical reports. Teachers then identify the types described in a classifying report, and parts described in a compositional report – providing a platform for discussing the organisation of school knowledge as classes and members, and as wholes and their parts. Relevant taxonomies are then jointly constructed from the texts, illustrating how to explicitly teach students about relations between oral commonsense and written school knowledge (see example with the Water Cycle in BOSTES 2014).

Analysis of arguments reprises the deconstruction practised earlier, identifying opening statements, previews and reviews, topics and elaborations, and the internal conjunctions used to structure these text phases. Relations between arguments and curriculum fields are discussed in respect to lesson programming, as writing of arguments is planned to follow on from research on an issue, from which positions and evidence are drawn. Similar genre/field relations are also drawn on for text responses, that are written following the study of literary, artistic or musical texts. The structuring of arguments and text responses is compared, pointing out similar patterns of logical relations and evaluation. These factors are linked to teachers’ existing perspectives, as these genres are traditionally subsumed as ‘essays’ (with familiar introduction-body-conclusion staging, and the topic-elaboration phasing of paragraphs).

The analysis of phases across genres is more detailed than work on texts in the first generation of genre analysis which explicitly named only their stages. This was sufficient in...
early genre writing pedagogy, which was initially developed from analysing short texts written by primary school students. But since the recognition of phases was left to intuition, some indeterminacy in labelling arose. For example, Labov & Waletsky’s 1975 description of short oral narratives recognised an Evaluation stage between Complication and Resolution stages. But analysis of written narratives reveals far more elaborate patterns of problem and reaction phases within Complications. Amongst explanations, factors and consequences were originally labelled as genre stages, whereas phasal analysis treats them as types of phases within the Explanation stage. Although the phases of arguments were often identified informally (for example position statement, preview, topic and elaboration) they were not formally recognised as phase types.

The R2L approach provides a higher level of support for students to recognise and appropriate instanital patterns of register and genre in curriculum texts. Phasal analysis is an essential component of this methodology. The associated metalanguage is also designed to be as learnable as possible – using the curriculum genres outlined above, generalising phase types from register patterns in each genre, and using distinct labelling for phases (with lower case) and genre stages (with initial caps). Table 3 sets out some common terms for knowledge genres, their stages and phases that are useful for schools. The names provided for phases are by no means exhaustive.

<table>
<thead>
<tr>
<th>family</th>
<th>genre</th>
<th>stages</th>
<th>phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>story</td>
<td>recount, narrative, anecdote, exemplum, news story</td>
<td>Orientation, Record of Events, Complication, Resolution, Evaluation; Lead, Angles</td>
<td>setting, problem, reaction, description, solution, comment, reflection</td>
</tr>
<tr>
<td>chronicle</td>
<td>biography, autobiography, history, recount/account</td>
<td>Orientation, Background, Record (Life Stages)</td>
<td>(life/history) stage</td>
</tr>
<tr>
<td>explanation</td>
<td>sequential, factoral, consequential, conditional</td>
<td>Phenomenon, Explanation</td>
<td>step, factor, consequence, condition</td>
</tr>
</tbody>
</table>
| report | descriptive, classifying, compositional | Classification, Description | appearance, behaviour, habitat, type, part ...
| procedural | procedure, protocol, procedural recount, | Aim, Method, Results, Discussion | ingredients, equipment, materials, hypothesis, steps ...
| argument | exposition, discussion | Thesis, Arguments, Restatement; Issue, Sides, Resolution | preview, review, topic, elaboration, evidence, example, point ...
| text | review, interpretation | Context, Description, Evaluation; Evaluation, Synopsis, Re-evaluation | themes, technique, preview, review, topic, evidence, example ...

1.4 Analysing student texts

The final step in this first macro-phase of the program is to introduce a procedure for assessing students’ writing. The assessment uses 14 criteria at the levels of genre: purpose/staging; register: field/tenor/mode; discourse: lexis/appraisal/conjunction/reference; grammar (accuracy and complexity); graphic features: spelling/punctuation/presentation. Each criterion is simply scored 0-3 (absent/weak/good/excellent). Teachers assess their students’ writing by comparison with
exemplars for each stage of school, that have been assessed and scored at a high level for the stage. Exemplars are provided for stories, factual texts, arguments and text responses.

The previous guided experience with analysing genres, stages, phases and register provides the foundation for this next step in analysis. The writing assessment is designed for teachers to start text analysis without formal training in linguistic systems. They can now readily evaluate students’ control over genre and staging. Field, tenor and mode criteria are assessed for each genre, as outlined in Table 2 above. Teachers look for imaginative plots, engaging readers in stories; technical knowledge, presented objectively in factual texts; positions and evidence, persuading readers in arguments; themes and techniques, analysed and evaluated in text responses. The realisations of these dimensions in discourse are physically highlighted in the text. With a little guidance, teachers can readily distinguish ideational lexis from appraisal items, conjunctions and reference items, and make rapid judgements about students’ resources. The grammar criterion is not concerned with scoring specific types of grammatical structures, but with an overall score for their accuracy and variety – which teachers can readily judge by comparing writing samples.

Writing assessment is an effective pathway into text analysis for teachers. They are motivated by their interest in their own students’ writing; it extends and explicates their existing assessment practices, which are often explicitly focused on lower level criteria, but leave genre, register and discourse criteria implicit; it fleshes out the stratified language model introduced at the start of the program; and it gives teachers an explicit but relatively simple metalanguage they can use and share with their students. It also gives them an accurate tool for measuring the growth in their students’ language resources, as units of work unfold.

2. Analysing register in planning Detailed Reading lessons

The second macro-phase of the program introduces teachers to the complex curriculum genres of Detailed Reading and Rewriting. Detailed Reading supports all students to read a passage from a reading text with detailed comprehension of its field, and to recognise the author’s language choices. The teacher previews a sentence, reads it, and prepares students to identify each of its wordings in turn, with simple meaning cues. Students identify the wordings, and their meanings are then elaborated. These cycles continue for each sentence in the text passage. In Joint Rewriting, students are guided to appropriate what they have learnt from Detailed Reading in order to write a new passage. For factual genres, the teacher guides the class to create new sentences from notes taken from the passage. For stories, arguments and text responses, the same grammatical patterns as the Detailed Reading passage are rewritten with a new field, deepening students’ skills in appropriating written language resources.

2.1 A metalanguage for register analysis

The primary focus of metalanguage in this phase is on the analysis and planning of these pedagogic activities. It begins by analysing pedagogic activities in a variety of contexts, building the metalanguage for analysing and designing learning cycles (Rose, this volume). This metalanguage is then used for planning Detailed Reading lessons. But this lesson...
planning also involves a close analysis of language patterns in the knowledge genres under focus. Rather than using the technical terms of SFL for labelling these patterns, they are approached from the perspective of register. As for the genre/register analyses described above, this connects directly with teachers’ perspectives on their curricula, and avoids overloading them with linguistic technicality, while they grapple with designing their classroom discourse.

Analyses are framed in terms of 1) the pedagogic phases of preparing students to identify wordings, and elaborating their meanings, and 2) levels of reading task related to language strata (namely ‘literal comprehension’ of items in sentences, ‘inferential comprehension’ of discourse semantic relations, and ‘interpretive comprehension’ of the register). Preparations tend to focus on literal meanings; elaborations focus on inferential and interpretive meanings.

With stories, the focus of Detailed Reading is on expansions of meaning that engage the reader in the story’s plot – the ‘literary language’ of written stories. The analysis is briefly illustrated with the following passage from Roald Dahl’s Fantastic Mr Fox (1998:12). A few wordings to focus on are underlined.

He crept a little further out of the hole . . . then further still. He was almost right out in the open now. He took a last careful look around. The wood was murky and very still. Somewhere in the sky the moon was shining.

Just then, his sharp night-eyes caught a glint of something bright behind a tree not far away. It was a small silver speck of moonlight shining on a polished surface. Mr Fox lay still, watching it. What on earth was it? Now it was moving. It was coming up and up . . . Great heavens! It was the barrel of a gun! Quick as a whip, Mr Fox jumped back into his hole and at that same instant the entire wood seemed to explode around him. Bang-bang! Bang-bang! Bang-bang!

Two general types of preparation cues are used. If items are familiar to students, a ‘wh-cue’ may be used, giving a general category of meaning (who, what, what doing, when, where, how) from which students identify the particular wording. But if the words are unfamiliar, a more familiar synonym or paraphrase is given, so students can recognise the meaning.

The items just then are familiar, so the preparation cue is ‘when’ (Mr Fox saw the light). The elaboration then guides students to infer the temporal relation to the preceding setting, ‘just when?’; i.e. ‘what was happening just then?’ Likewise, eyes is a familiar item, so the preparation is ‘what part’ (of Mr Fox saw the light). The elaboration then guides students to interpret sharp night-eyes, in relation to both the setting (the murky wood) and foxes’ abilities to see in the dark.

In contrast, caught a glint is a potentially unfamiliar idiom, so the preparation is its transferred meaning, ‘he just saw a tiny light’. The elaboration then defines the word glint, and explains the idiom. Something bright is familiar so the preparation is ‘a glint of what’, and the elaboration then interprets whether Mr Fox knew what the something was. The locations behind a tree and not far away are familiar so the preparations are ‘where’ (the something and tree were). The elaborations interpret whether Mr Fox could see what it was, and how he would feel if it was close by. By these means, each item is made comprehensible within the unfolding register – including the setting and events, and the character’s emotional reactions.
2.2 Detailed register patterns in stories, factual and evaluative texts

The Mr Fox analysis just reviewed reveals the density of meanings in this apparently simple sentence, and the complexity of the reading task – although Dahl’s target readership is 7-9 year olds. While some of these readers may be able to interpret the field with general comprehension, few would recognise the significance of each item; and others would struggle with items like sharp night-eyes and caught a glint.

Detailed Reading manages this density by preparing each item in turn, and then interpreting its contribution to the register of the text. In terms of presence, the field of preparation phases is congruent with students’ everyday experience (saw a tiny light); while elaborations may unpack abstract wordings (e.g. the idiom caught a glint). Similarly, tenor is negotiated in preparation phases (can you see the words?) while elaborations may be factual (defining, a glint is a tiny bit of light, or explaining, foxes have special eyes that can see in the dark). For mode, preparations focus on the shared context of the shared page (the first two words tell us when) while elaborations focus on the register implied by the text (what was happening just then), thus making implicit fields explicit.

Preparations thus enable the weakest students to succeed with each task of identifying wordings, while elaborations provide detailed comprehension of the text’s unfolding register, and the reasons the author has chosen each element of meaning. These understandings are well beyond the normal conscious recognition of any student, but Detailed Reading makes them accessible to all.

The complexity of this teaching activity, and the analysis required for its planning, is also far beyond the tools provided by functional grammar. What is perhaps relevant to grammar is the realisation of each element of meaning as a word group or prepositional phrase; but a transitivity analysis of process, participants and circumstances is both too general and too abstract to be of any use for students comprehending the register. Furthermore, metaphors and idioms like caught a glint resist a simple grammatical parsing as their transferred meanings span across grammatical units. Rather, in planning and teaching a text, each element of meaning must be analysed and interpreted from the perspective of register.

For factual texts, the focus is on information about the field, and how it is built up and related lexically and logically – as in the following physics definition.

Gravitational potential energy is the potential energy that an object has because of its height and mass. The higher the object is, the more gravitational potential it has. And the more mass an object has, the more gravitational potential it has.

Preparations for texts of this kind depend partly on prior knowledge, including previous lessons about the technical field; elaborations then define, explain and discuss new knowledge about the field. If potential energy had been previously defined as ‘stored energy’, the first preparation could be ‘type of stored energy’. The elaboration then defines gravitational. As height and mass are familiar, they can be prepared as ‘two conditions’, and elaborated as ‘how high the object is above the earth’ and ‘how much matter the object contains’. In the next sentences, higher the object and more mass can be prepared as ‘first condition’ and ‘second condition’, and more gravitational potential as ‘effect’. The
elaboration could then discuss possible effects on objects of more or less gravitational potential energy, recontextualising the technicality in students’ sensory experience.

With arguments and text responses, the focus is on patterns of analysis and evaluation – as in the following interpretation of Faulkner’s *Mice and Men*.

The literary power of Mice and Men rests firmly on the relationship between the two central characters, their friendship and their shared dream. These two men are so very different, but they come together, stay together, and support each other in a world full of people who are destitute and alone.

Preparations reconstrue abstractions in familiar terms, and elaborations unpack the abstractions. So literary power could be prepared simply as ‘the book’s strength’, and elaborated as ‘the effect on readers of its literary language and themes’. The logical metaphor rests firmly is prepared with a more familiar paraphrase like ‘relies on’, and elaborated by unpacking the metaphor as ‘building on a foundation’. Relationship and two central characters are prepared with ‘what it rests on’, and ‘whose relationship’, which is then elaborated by recalling the characters’ names. Friendship and shared dream are prepared as ‘two parts of their relationship’, and elaborated by discussing the importance of these two themes to the novel. Two men, so very different are prepared with ‘which characters’ and ‘what like’, and elaborated by recalling ‘how they are different’. The sequence come together, stay together, and support each other is prepared with ‘three things they do’, and elaborated by discussing the contrast with the men’s difference. A world full of people and destitute and alone are prepared with ‘how many people’ and ‘what like’, and elaborated by discussing this third theme in the novel, of social injustice, and the characters’ struggle against it.

Again, knowledge about grammar offers limited guidance for analysing and teaching these registerial patterns, beyond the clause and group structures that realise them. Systematising these analyses would require detailed descriptions of register systems, and types of instantsial patterning expected for various genres and curriculum fields. In lieu, teachers are guided to analyse sample passages, using the criteria for preparing and elaborating illustrated above, and using their subject knowledge and intuitions to identify patterns of meaning. Their analytic skills rely on their experience with the curriculum subject and texts, and build up through practice in planning and teaching Detailed Reading lessons.

Martin (2013, in press b) and Maton (2013) use the teacher friendly terms ‘power words’ to denote technical terms like gravitational potential and abstractions like literary power, and ‘power grammar’ for the grammatical metaphor that constructs and configures them in highly written discourse. Martin (in press b) analyses learning cycles in Detailed Reading of technical texts as increasing and decreasing ‘power’ (in other words mass). Such terms valorise technicality in ways that are sensible and appealing to teachers, pointing to the kinds of metalanguage we need to build for analysing register.

**3. Grammar structures: from groups to clauses to grammatical metaphor**

Priority has been given to register above. But functional grammar is also useful to teachers for four general purposes: 1) recognising structural patterns of words, groups and clauses that realise patterns of register, 2) recognising tensions between grammatical functions and
lexical meanings in grammatical metaphors, 3) guiding students to use varieties of grammatical patterns in their writing and 4) guiding language learners to recognise and use grammatical details of English or other target languages. However, the grammatical metalanguage they need is not the same as that designed for linguistics students in functional grammar textbooks. Rather its organisation needs re-contextualising for learning and application in classroom activities. To this end, the third macro-phase of the R2L program is designed to build knowledge about grammar in four steps, focused on analysing texts as 1) word groups and clauses, 2) elements of verbal and nominal groups, 3) grammatical metaphor and 4) applying these analyses in lessons.

3.1 Word groups and clauses

The first step into grammar generalises patterns of register to identify patterns of wordings. Using their experience with planning Detailed Reading, teachers first highlight items in an extract from a story and factual text. As in the examples above, what they highlight are primarily groups of lexical items, with adjoining grammatical words left unmarked. The lexical items realise the text’s field. Each highlighted word group is then labelled with the general terms \textit{people, things, process, place, time and quality} (described as semantic elements or message parts in Halliday & Matthiessen 1999, Martin 1992, Martin & Rose 2007.) The analysis enables teachers to recognise that sentences are composed of word groups expressing a finite set of general meanings – that construe experience as processes involving people and things, in times and places. They also realise that these are universal semantic categories which even young children recognise intuitively, and which can be interrogated with wh-items.

The identification of word groups and phrases is then formalised by marking their boundaries with a slash – ‘/’. As these structures have been brought to consciousness through their semantic labelling, teachers have little trouble identifying their boundaries. Clauses are then identified, using the criterion of one process per clause, and marked with an extra slash – ‘//’. Clauses can now be defined experientially as a process involving people and things, in places and times; this is a definition that makes sense to teachers and their students. Teachers can also readily distinguish independent and dependent clauses, giving us a set of basic systems for clauses (independent/dependent) and word groups (people/things/process/place/time/quality). These ten terms are immediately useful for guiding lesson planning, and reading and writing activities.

Some of teachers’ questions that arise during these analyses are related to structural differences among process types, which provides an opportunity for introducing a basic system of process types.\(^4\) Up to this point, teachers have been able to identify grammatical features with minimal guidance, using register to bring grammar to consciousness. With guidance they are also able to recognise basic functional distinctions between material, verbal, mental and relational process types. However, this step shifts the focus of attention from grammatical structures realising register to the organisation of grammatical systems. For many, the change from actively analysing texts to studying a grammatical system approaches semiotic overload. This is one factor in the limits of any application of functional grammar in classrooms. Although the process type system is a major feature in grammatical theory, it is not as significant for interpreting register.\(^5\) For example in science, what is most
significant are the kinds of relations between entities, classes and qualities, not whether or not a process is relational. In narrative, it is not distinctions among material, mental and verbal processes that are significant, but the events, problems, and characters’ reactions and reflections that they realise. The value for literacy teaching of grammatical systems like process types can be outweighed by the semiotic labour required for teachers to learn, remember and recontextualise them for teaching. For this reason the process type system is only introduced here briefly, but not dwelt upon.

3.2 Functions in word groups

The second step into grammar focuses on functions within word groups. The patterns made conscious to this point form a platform for distinguishing nominal and verbal groups and prepositional phrases – by reference to the type of semantic elements they realise (people, things, process, place, time), and the word classes that compose them (nouns, verbs, prepositions). Each type is then analysed as far as necessary for teachers to recognise and discuss basic semantic functions. Within each verbal group, teachers can readily identify lexical items that realise the process. This enables a general distinction to be made between lexical and grammatical items, that can be labeled as ‘content’ and ‘helper’ words in the classroom. The functions of grammatical items are then briefly explored. Teachers are guided to identify and name the meanings of time, probability, usuality, obligation and inclination, and the basic values, past/present/future and high/median/low, as well as alternative adverbial and nominal realisations. The grammatical systems are named as TENSE (which most teachers know) and MODALITY (which a few can name); but once again, the details of these systems are not dwelt upon.

On the other hand, the potential of nominal groups for expanding meanings in writing is critical, so their structural functions are each examined and explicitly labelled. Presence is deployed by selecting an entity in the environment, writing its name on the whiteboard, and labelling it as Thing. Its identity is then specified with a deictic item labelled Pointer; it is counted with a Number; its qualities are described with Describers; and it is classified with Classifiers. As for text phases, teachers are guided to offer these labels themselves from their functions, modelling the technique to use with their students. Finally, the nominal group is post-modified with Qualifiers and pre-modified with a Focus (see Martin & Rose 2012 for more detail). The meaning potential of prepositional phrases is expanded by identifying various types of prepositional phrase in the text extracts (in addition to time and place). And the functions of common grammatical items including pronouns, conjunctions, prepositions, adverbs and adjectives are described.

Finally, these analyses are embedded in pedagogic applications. Sentences from reading texts are written on cardboard strips, and cut up into clauses and word groups (as in the Sentence Making activity (Rose, this volume)). Word groups are labelled with the type of semantic element they express, and rearranged to see what structures are possible. Extended nominal groups are cut up into words, with each word labelled for its function, and rearranged to explore what is possible. Teachers can use these same activities for teaching grammatical metalanguage with their classes. This metalanguage can then be used in discussions during reading and writing lessons.
### 3.3 Grammatical metaphor

The third step in this phase of the program brings grammatical metaphor to consciousness. Metaphors are first defined as wordings whose literal meaning differs from their inferred meaning, using examples of lexical metaphors (following the model of Halliday 1994). Examples of lexical metaphors are ‘wash their hands in innocence’ or ‘fear and anxiety swept over them’, that invoke fields from the Bible and a flood, to construe the meanings ‘denying responsibility’ and ‘uncontrollable feelings’.

Once the principle of layered meanings is established, teachers then label word groups in texts containing grammatical metaphors. They discover that the semantic labels they have applied to some word groups, based on the lexical items, differ from the meaning expected for their grammatical class. For example, *campsite locations were affected by seasonal changes* may be interpreted lexically as ‘place affected by time’, while the grammar construes it as ‘thing (nominal group) affected by thing (nominal group)’.

Teachers then practise unpacking grammatical metaphor in texts, by keeping lexical items constant and rewriting them into congruent grammatical structures. For example, ‘people moved their campsites because the seasons changed’. They then recognise that the unpacked version is the kind of spoken paraphrase used in Preparing for Reading, where it is used to prepare students to comprehend a technical or abstract text as it is read.

In reading lessons, teachers can now consciously prepare students to identify metaphorical items by giving their transferred meanings and then elaborate by unpacking the layers of metaphor. They can also start guiding students to package information into metaphors in their writing. These strategies are demonstrated in videoed lessons (BOSTES 2014, Rose 2015).

The grammatical metalanguage outlined here is sufficient for most literacy applications in the primary and secondary school; it is a ‘good enough grammatics’ for these contexts (Macken-Horarik, Love, & Unsworth 2011). The focus is on structures that realise patterns of register, rather than grammatical systems. The only clause rank system briefly touched on is TRANSITIVITY, as its model of experience as process types involving people and things emerges naturally during analyses. Interpersonal and textual grammatical systems are less accessible; they need more semiotic labour to make be brought to consciousness, and involve additional layers of technical terms. For example, analysing the grammar of mood requires technical definitions for the mood element of a clause (its Subject and Finite functions) and their sequencing rules. On the other hand, speech functions realised by mood, such as statement, question and command, are immediately accessible to commonsense. The question is whether it is more useful for teachers to look upwards to the discourse structures of their classroom exchanges, or downwards to the grammatical structures of mood systems.

It is possible to touch on both MOOD and MODALITY, while exploring the structures of verbal groups (noted above). But it is crucial not to overload teachers with the complexity of these grammatical systems, so that comprehension and memory is drowned in detail. MODALITY is better understood as a resource for evaluation in texts, alongside other appraisal resources.
Similarly, the textual functions of THEME can only be understood in the context of organising information in texts; so THEME is more meaningfully addressed as a discourse semantic resource, rather than a grammatical system. Grammatical distinctions among these systems are important to linguists, as they constitute necessary argumentation for SFL’s theory of metafunctions. But for teachers such distinctions involve too much information to learn, and provide too little pay-off for their teaching. Table 4 sets out some common terms that have been found useful for discussing grammar in the classroom.

Table 4: Some common terms for discussing grammar in the classroom

<table>
<thead>
<tr>
<th>term</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clause</td>
<td>independent, dependent; simple/complex sentence (power grammar)</td>
</tr>
<tr>
<td>word group</td>
<td>people, things, process, time, place, quality (power words)</td>
</tr>
<tr>
<td>verb group</td>
<td>time: past/present/future (tense)</td>
</tr>
<tr>
<td></td>
<td>probability, usuality, obligation, inclination (how likely, often…) (modality)</td>
</tr>
<tr>
<td>noun group</td>
<td>Focus, Pointer, Number, Describer, Classifier, Thing, Qualifier</td>
</tr>
<tr>
<td>preposition phrase</td>
<td>place, time, cause, means, role, comparison, accompaniment …</td>
</tr>
<tr>
<td>word</td>
<td>lexical/grammatical (content/helper)</td>
</tr>
<tr>
<td></td>
<td>adverb, adjective, conjunction, preposition, pronoun</td>
</tr>
</tbody>
</table>

4. Discourse structures: organising, tracking, linking, classifying, evaluating

The fourth macro-phase of the program introduces the discourse semantic systems of PERIODICITY, CONJUNCTION, IDENTIFICATION, IDEATION and APPRAISAL (Martin & Rose 2007). The approach to grammar reviewed above backgrounds grammatical systems in order to focus on the types of structures through which register patterns are realised. In contrast, discourse systems directly realise patterns of register, so they are more accessible to conscious recognition and application. Through the writing assessment, teachers have already been introduced to CONJUNCTION, IDENTIFICATION, IDEATION and APPRAISAL, and have practised identifying their features in students’ texts (section 1.4 above). Basic paradigms of options are now presented for each system, and used to identify features in texts of various genres – revealing their distinctive roles and patterns in different genres. Options for applying these patterns in reading and writing lessons are then discussed for each system. Teachers’ induction into the discourse semantic systems is thus directly linked to the curriculum genres in which they will be applied in the classroom.

4.1 Information patterns

A natural starting point for exploring discourse systems is with the organisation of information in texts (PERIODICITY). As argument genres have already been explored from the perspective of stages and phases (section 1.1 above), they are now reviewed from the perspective of packaging information. Looking forward, the introductory preview predicts the text structure, topics predict paragraph content; and looking backwards the concluding review distills the arguments. The text organising functions of internal conjunctions are also noted, such as firstly, secondly, in contrast, in conclusion. A simple paradigm for organising information is jointly constructed, as in Table 5.
Table 5: A simple paradigm for organising information

<table>
<thead>
<tr>
<th></th>
<th>start</th>
<th>end</th>
</tr>
</thead>
<tbody>
<tr>
<td>text</td>
<td>introduction ‘body’ conclusion</td>
<td></td>
</tr>
<tr>
<td>paragraph</td>
<td>topic</td>
<td>elaboration point</td>
</tr>
<tr>
<td>sentence/clause</td>
<td>Theme</td>
<td>New</td>
</tr>
</tbody>
</table>

Recognising familiar information structures at text and paragraph levels forms a basis for identifying patterns at sentence level, that are less familiar to teachers. A story is used to show how people are consistently presented as Themes, while places and times as marked Themes signal shifts in story phases. Teachers are guided to highlight the beginning of ranking clauses, up to and including the first person or thing – with the proviso that this identity is sometimes implicit. In this way the concept of clause Themes is readily brought to consciousness, and the function of marked Themes to signal phase shifts becomes apparent. This recognition is then extended by identifying time and place Themes that mark phases in biographical and historical recounts. Teachers can see immediate applications in guiding students to organise stories and chronicles, by appropriating Theme patterns in model texts.

A further step is to identify the function of grammatical metaphor to organise information in abstract and technical texts. The texts that were analysed earlier for grammatical metaphor are re-analysed for Theme and New – revealing how grammatical metaphor is deployed to sequence chunks of information as Themes and News. Teachers then explore similar patterns in other texts, and plan Detailed Reading and Rewriting lessons that will guide students to package information into these patterns.

4.2 Items and relations

CONJUNCTION, IDENTIFICATION, IDEATION and APPRAISAL systems are explored by highlighting items that realise them in texts, and discussing patterns of relations between items. IDENTIFICATION and CONJUNCTION are relatively easy starting points, as they are realised by finite sets of items that are familiar to teachers - conjunctions, pronouns, articles, comparatives. The first option in IDENTIFICATION is between presenting or presuming identities, which is revealed as the primary meaning of a and the (despite other definitions teachers may have encountered for articles). Presuming options include demonstrative, possessive, comparative, pronominal and text reference, all of which teachers find familiar, and can readily identify items in example texts such as narrative dialogue (for complex speaker identification), and text responses (for diverse text reference).

Conjunctions are presented in a basic paradigm that cross-classifies logical relations of addition, comparison, time and consequence, with external conjunctions that connect events, and internal conjunctions that organise text, as in Table 6. Items are then identified in genres such as stories (for time and addition), arguments (for internal conjunction) and explanations (for consequence). Patterns of explicit or implicit conjunction are also explored. Finally, an expanded CONJUNCTION paradigm is presented on a single page, that can be copied for students’ workbooks or classroom posters.
Table 6: A basic paradigm for CONJUNCTION

<table>
<thead>
<tr>
<th></th>
<th>external (connecting events)</th>
<th>internal (organising text)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>addition</strong></td>
<td>additive</td>
<td>written</td>
</tr>
<tr>
<td></td>
<td>alternative</td>
<td>spoken</td>
</tr>
<tr>
<td></td>
<td><em>and, besides</em></td>
<td><em>in addition, further</em></td>
</tr>
<tr>
<td></td>
<td><em>or</em></td>
<td><em>well, okay, anyway</em></td>
</tr>
<tr>
<td><strong>comparison</strong></td>
<td>similar</td>
<td>similar</td>
</tr>
<tr>
<td></td>
<td><em>like, as if</em></td>
<td><em>similarly, for example</em></td>
</tr>
<tr>
<td></td>
<td><em>instead of, whereas</em></td>
<td><em>by contrast, rather</em></td>
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<tr>
<td><strong>time</strong></td>
<td>successive</td>
<td>successive</td>
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<td></td>
<td><em>then, after, before</em></td>
<td><em>first, secondly, finally</em></td>
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<td></td>
<td><em>while, as, when</em></td>
<td><em>at the same time, still</em></td>
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<tr>
<td><strong>consequence</strong></td>
<td>cause</td>
<td>concluding</td>
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<td></td>
<td><em>because, so</em></td>
<td><em>thus, consequently</em></td>
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<td></td>
<td><em>by, thus</em></td>
<td><em>nevertheless</em></td>
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<tr>
<td></td>
<td><em>if...then</em></td>
<td><em>however</em></td>
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<td></td>
<td><em>so that, in order to</em></td>
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The focus with IDEATION is on lexical items and relations: repetition, synonyms, contrasts, whole/part and class/member relations. The role of lexical repetition in supporting comprehension is examined in children’s stories and technical texts, and the use of synonyms is discussed in guiding students to comprehend new concepts and vocabulary. However the major focus is on the function of whole/part and class/member relations for building fields in curriculum subjects. Items are identified in classifying reports and compositional descriptions, to explore relations of classification and composition. Taxonomies are then drawn (using the items in these texts) that display the organisation of fields in natural and social sciences, as in Figure 6.

Figure 6: A taxonomy drawn from a classifying report in biology

A basic APPRAISAL system is presented that displays options for expressing feelings, judging people and appreciating things (attitudes), alongside options for amplifying and diminishing (graduation), and sourcing attitudes to oneself or others (engagement). These basic options are applied to identifying items in a variety of texts. Teachers readily identify both inscribed and invoked items, and this distinction is pointed out. A focus with stories is on how authors engage readers and encode social messages through evaluations of characters’ feelings and behaviour. Appreciation and judgement are identified in text responses, displaying how critics evaluate texts and their messages. Patterns of graduation and sourcing are identified in arguments, showing how commentators subtly manipulate positions. Academic texts are also explored for complex patterns of sourcing. The focus is on how accomplished authors deploy these evaluative resources in texts, rather than on the details of appraisal systems. Detailed Reading and Rewriting is practised on key passages, showing how to guide students
to recognise and appropriate these patterns for their own writing. Table 7 sets out a few basic terms for discussing discourse systems in the classroom.

Table 7: Basic terms for discussing discourse systems

| INFORMATION | introduction, conclusion; topic, elaboration, point; Theme, New (power composition) |
| CONJUNCTION | presenting/presuming, possessive, comparative, text reference |
| LEXIS | internal/external, addition, comparison, time, cause, means, purpose, condition, concluding, countering |
| APPRAISAL | lexical relations, repetition, synonym, contrast, class, member, whole, part |

5. Knowledge genres and metalanguage for teaching tasks

Recontextualising knowledge about language from the academy to teacher education requires more than simply reducing technicality and increasing support for its acquisition. Even if teachers do successfully acquire such a reduced linguistic theory, they cannot then be expected to perform the more challenging task of recontextualising it into classroom practice. Rather a metalanguage for embedding literacy in curriculum teaching requires a new delivery platform, informed as much by its pedagogic applications as by linguistic and educational theory.

The first step is to recognise that knowledge genres, and each stratum of their realization (i.e. register, discourse, grammar and graphology), come into being only through the curriculum genres in which they are written and read. It is not enough to re-instantiate the curriculum genres of academic linguistics and language teaching traditions in contemporary classrooms, in order to teach components of the language learning task. Rather new curriculum genres are required – for example the teaching/learning cycle of genre writing pedagogy. Just as the pedagogic metalanguage for knowledge genres (their names and stages) emerged from the transdisciplinary dialogue of linguistic analysis and pedagogic design, so the metalanguage outlined in this paper has emerged from analysing each component of the tasks of reading and writing – and designing curriculum genres for teaching them and a pedagogic metalanguage to serve them. The design includes not only the curriculum genres and metalanguage for the classroom. Equally important are the teacher training curriculum genres through which teachers construe this knowledge, described in the accompanying paper (Rose, this volume). And the metalanguage is designed not only to be teachable in the classroom, but learnable by teachers in their training.

This design is by no means complete. The largest gap in our metalanguage is the systems and instantial patterns of register that vary by genre, curriculum field, and stage of schooling. Mapping these patterns and designing a registerial metalanguage that is learnable for teachers and applicable in the classroom is a challenging research task. But the payoff will be an ever growing relevance for functional linguistics in education.
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Building a pedagogic metalanguage II

David Rose


Rose, D , this volume. Building a pedagogic metalanguage: curriculum genres. ...


Teachers participating in R2L training programs are routinely asked if they have studied courses in functional grammar. They are also asked what they remember of these studies, and what they apply in their teaching. Very few are able to recall more than a little about process types and modality. Fewer still use this knowledge in their teaching.

Graphology is practised throughout R2L writing activities.

This approach helps to avoid the erroneous notion that transitivity is about types of verbs. One source of this notion seems to be genre materials that focus on grammar features such as verbs. The significance of relational processes is not the verb but the relations they express; for saying and sensing it is what they project and how.

Halliday (2008:7) makes a similar point that register cannot be interpreted directly from grammar. “I’m a grammarian; so I can’t help observing that the verb launch represents a material process, one that is ‘effective’ (that is, having two participants, an Actor and a Goal), and in which the Actor is human and the Goal is an artefact, one designed to move across water (in other words, a boat). The process of launching consists in shifting the boat from where it has been built to where it is going to work: from land to water... But if we say that the Queen of England launched a new luxury liner, she may have performed some material act, like hurling a bottle of champagne against the boat; but she didn’t actually push it. Or rather, she didn’t push it materially; she pushed it semiotically. She said something – she performed some act of meaning – which inaugurated the movement of the boat. So even with boats, launching may be a semiotic process rather than a material one.”