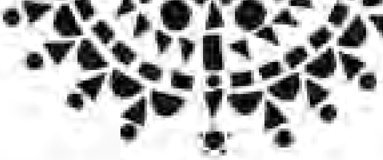
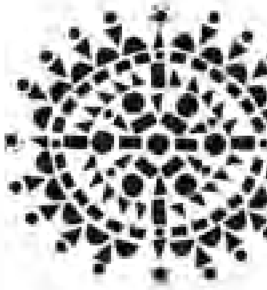
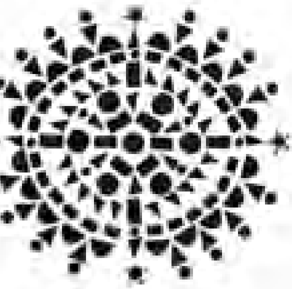




The foundation Event

CONVERSATIONS ABOUT FOUNDATION

and Extended Curriculum Provision



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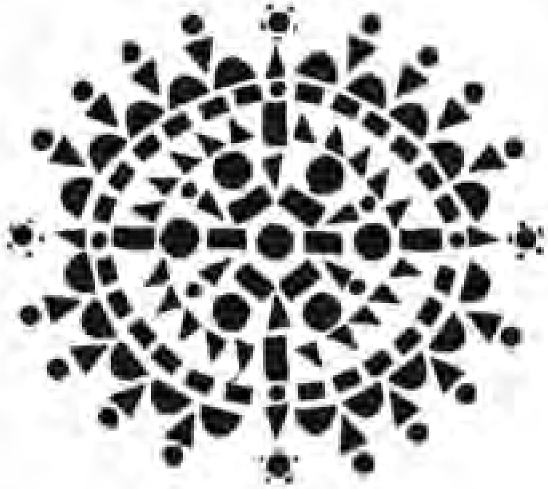

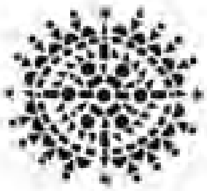

Cape Peninsula University of Technology

HELTASA
Higher Education Learning & Teaching Association of Southern Africa

education
Department: Education
REPUBLIC OF SOUTH AFRICA

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Introduction

James Garraway, Cape Peninsula University of Technology

The Foundation Event: Conversations about Foundation at Granger Bay, Cape Town was attended by just under 200 delegates from all the universities in South Africa. The event was an initiative of the Foundation Special Interest Group of the Higher Education Learning & Teaching Association of Southern Africa in conjunction with and funded by the Department of Education. The intention of the event was to provide lecturing staff, particularly those who were new to the foundation field, with practical data on how to design and implement foundation courses which were most likely to benefit student learning and, ultimately, successful graduation. As such recognized experts in the foundation field presented workshops on a variety of topics. In order to make the workshops clearer, the presenters have provided us with explanatory notes to go with the presentations.

The Event was also an opportunity for academics to share their experiences of researching teaching and learning within their foundation courses in the form of twenty one paper presentations. The original unedited papers are included in the book.

As Dr. N. Tisani of CPUT pointed out, foundation courses are frequently understood as providing students with knowledge and skills they lack, a so-called deficit model of foundation. The keynote speakers Professors Boughey (Rhodes) and Rose (University of Sydney) challenged these deficit assumptions in their keynotes and suggested ways in which curriculum could change in order to provide better access for all to academic disciplines.

It is hoped that the Foundation Conference book will be the first of a number of publications promoting and explaining foundation practices in South African universities.

James Garraway, Chair and Foundation SIG Coordinator.

CONVERSATIONS ABOUT FOUNDATION

The foundation Event and Extended Curriculum Provision

KEYNOTES

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REPUBLIC OF SOUTH AFRICA

David Rose

Dr David Rose is the director of *Reading to Learn,* an international literacy program that trains teachers across school and university sectors (www.readingtolearn.com.au). He is also an Associate of both the Faculty of Education and Social Work and the Department of Linguistics at the University of Sydney. His research interests include literacy pedagogy and teacher education, language and cultural contexts and language evolution. He is the author of *The Western Desert Code: an Australian cryptogrammar*. Canberra: Pacific Linguistics, 2001, *Working with Discourse: meaning beyond the clause* (with J.R. Martin). London: Continuum, 2003/2007 *and Genre Relations: mapping culture* (also with J.R. Martin). London: Equinox, 2008.

Redesigning Foundations: integrating academic skills with academic learning

David Rose, University of Sydney

This paper introduces a methodology known as *Scaffolding Academic Literacy*, that is designed to integrate the learning of academic skills with the study of academic fields in university programs. The *Scaffolding Academic Literacy* methodology has been developed as part of the *Reading to Learn* program that trains teachers in skills for embedding reading and writing skills at all levels of education (Rose 2005, 2007, 2008, www.readingtolearn.com.au). The strategies developed in this program have been consistently shown to accelerate literacy development at twice to over four times expected rates, at the same time as they close the gap in any class between the most and least successful students (McRae et al, 2000, Culican, 2006). Results for the *Scaffolding Academic Literacy* strategies include average improvements from junior secondary literacy skills to an undergraduate standard in just 60 hours of face-to-face teaching, embedded within academic programs (Rose, Lui-Chivizhe, McKnight & Smith 2004, Rose, Rose, Farrington & Page 2008). The program is currently being applied and adapted in universities in Australia, South Africa, China, Indonesia, Scandinavia and Latin America.

EDUCATION AND INEQUALITY

A fundamental concern of the *Reading to Learn* program is the tendency of education systems to reproduce social inequality, no matter what the prevailing ideology or resources of the system. In developed nations such as Australia, around 10-20% of school leavers matriculate to professional training at university, 30% get vocational level training, while 50% or more get no further education after school, and these outcomes have improved only marginally in generations (Rose 2004). In less affluent communities, the proportions of matriculating students may be much smaller, for example as low as 2% of black students in South Africa (Taylor, Muller & Vinjevold 2003), while the proportion receiving no further education may be much higher.

We consider that such intractable inequalities in education outcomes are a consequence of the failure of schools to explicitly teach students to read and to learn from reading, beyond the early years. Reading is the fundamental mode of learning in school, and for the successful minority of students, skills in learning from reading develop through each stage of schooling. However skills in reading to learn are not taught explicitly but are acquired tacitly by successful students, from the content oriented activities of the school curriculum.

For most of these students, the reading development sequence begins before school in parent-child reading in the home. The intensive talk around text in this cultural practice of literate middle class families provides an orientation to engagement in reading and recognition of patterns of meaning in written text, that gives these students a tremendous advantage from the beginning of school. By the end of junior primary they are reading independently and are ready to start learning from reading through the activities of the upper primary school. The skills in learning from reading developed through these activities are then elaborated through constant reading and writing across the curriculum over six years of secondary school, all leading to the skills in independent study required at university.

While this minority of students are tacitly acquiring the reading skills they will ultimately need for university, the system ensures that other students will not acquire them to the same extent, simply by divorcing explicit teaching of reading from classroom practice, as it becomes steadily more important for school learning. In each successive year of school, as learning depends more and more on skills in independent reading, it becomes less and less a part of classroom activities, culminating in academic study where it is not taught at all, except in remedial support classes.

In contrast the *Scaffolding Academic Literacy* methodology is designed for academic teachers to embed reading as part of their normal practice within undergraduate and postgraduate programs. Integrating teaching of reading skills with teaching course content requires analysis of academic pedagogic practices, and the tasks required of students for successful study. To these ends, both design of the methodology and analysis of practice are informed by the following principles.

PRINCIPLES OF SCAFFOLDING ACADEMIC LITERACY

The *Scaffolding Academic Literacy* methodology consists of a set of practical strategies developed in collaboration with teachers, and built on theory and research in learning, language and sociology of education. The strategies and the principles of the methodology are articulated in a form that is designed to be sensible and practicable for teachers in any academic field. They include three dimensions.

Firstly a model of learning activities that includes three phases: Preparation, Task and Elaboration (Figure 1). That is learning occurs through activities we shall refer to as tasks, but learning only occurs if the task is performed successfully. Successful task performance depends on the learner being prepared by teachers and/or texts that mediate the pedagogic relation. The skill/knowledge acquired through the learning task may then form a basis for elaboration, that extends the learning with a further step or higher level of skill or understanding.

This three phase model is consistent with Vygotskyan social learning theories, but specifies and temporalises the pedagogic relation that Vygotsky referred to as a ‘zone of proximal development’, and Bruner dubbed ‘scaffolding’. The scaffolding learning cycle is applied to analysis and design of learning activity at three levels of curriculum programs, lesson activities and teacher-learner interactions. In addition, evaluation of students’ task performance is always a component of learning cycles at each scale, of program, lesson, and interaction.

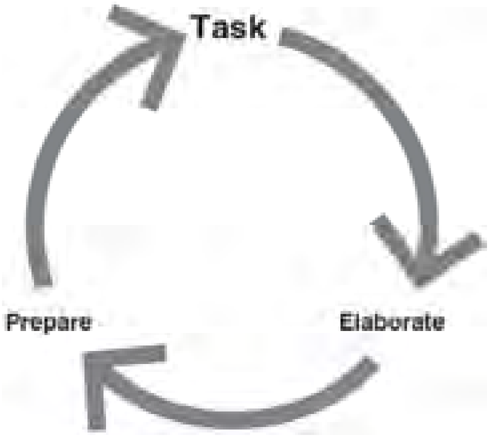

Figure 1: Scaffolding learning cycle

Secondly a model of language that includes three levels relevant to academic literacy (Figure 2), including academic contexts (fields), texts (discourse), and wordings (grammar). That is knowledge of academic fields is realised in patterns of discourse in texts (written and spoken), and these patterns of discourse are realised as patterns of wordings, including both the vocabulary of the field, and the grammatical patterns of sentences. These patterns will be further outlined in following sections of the paper. However it is important to note that language patterns vary with the kind of text, or genre, as well as with the field they discuss. Factual genres, for example, include explanations that are organised as sequences of cause-&-effect, or reports that classify and describe entities. Argument genres and literature reviews, on the hand, evaluate points of view and other texts, and are organised rhetorically to support these evaluations. The stratified model of text-in-context is informed by research in language in education, using the tools of functional linguistics and genre theory (Martin & Rose 2003, 2008), but is adapted in the methodology to be directly applicable by academic teachers.

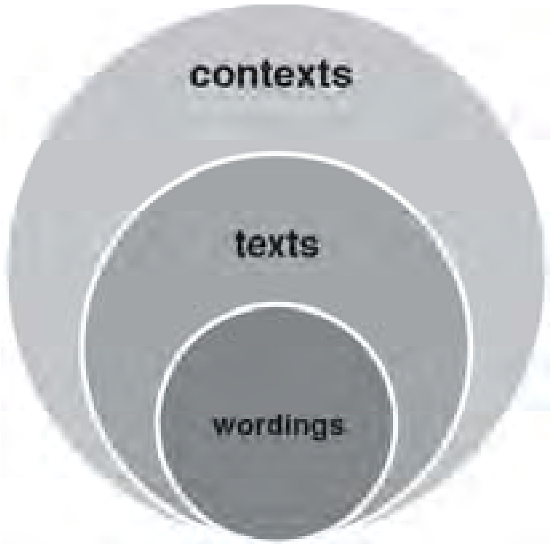

Figure 2: Model of text-in-context

Thirdly the models of learning and language are articulated with three academic learning contexts, including independent study, academic teaching, and support programs. Independent study includes the reading and writing tasks required of students outside the classroom. Academic teaching includes lectures, tutorials, distance teaching materials, and online learning programs. Support programs include literacy support provided to students, additional classes and courses intended to teach academic skills, and extended curriculum programs that slow the pace of study to accommodate students with weaker academic skills. The model articulates the phases of learning cycles with each of these contexts, and the pedagogic focus on each stratum of text-in-context.

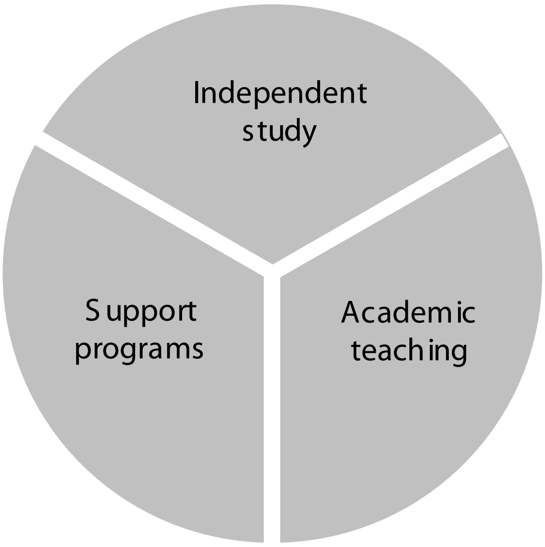

Figure 3: Academic learning contexts

The model is first applied here to analyse some current academic teaching practices. It is then developed as a framework for describing the *Scaffolding Academic Literacy* strategies.

ACADEMIC CURRICULUM CYCLES

The first step in the analysis is to correlate the learning cycles with academic contexts. Starting with the larger scale of semester courses, the students' task is obviously to acquire knowledge of the field of the course. Preparation for this task is provided by knowledge acquired in series of preceding courses, initially by foundation knowledge transmitted in senior secondary subjects that prepare students for university matriculation. Elaboration of the learning task at this scale is provided by succeeding courses, and ultimately by workplace experience in professions that academic courses qualify students for.

In addition the written assignments required of students two or three times a semester may also have an elaborating function, as students must practise re-presenting the field of the course in texts of their own. However, the primary function of assignments is not so much instructional but regulative, ranking students on the hierarchy of success and failure, determining whether or not they will proceed.

At the next scale of lesson activities, the key learning task is independent study of course readings, typically required each week, through which students are expected to acquire initial knowledge of the academic field. Weekly lectures, tutorials and/or online teaching activities then function to elaborate on field knowledge acquired through reading. That is, the field of a course is learnt primarily through the course readings, whereas lectures function to restate, summarise, exemplify and critique the field presented in readings. Associated practical activities may also elaborate through demonstration, manual practice and explanation.

If reading is the primary learning task for students' in each cycle, preparation for this task is provided by preceding cycles of readings and lectures within the course, by preceding courses, and ultimately by the reading skills developed over six years of secondary schooling. Indeed we argue that this preparation for independent study at university is the primary underlying function of learning activities across the secondary curriculum (Rose 2004, 2007). What elite students acquire from these activities is not simply knowledge of the topics in the curriculum, but more importantly skills in reading and writing the various patterns of language in which these topics are expressed.

These reading and writing skills are not taught explicitly, but are acquired tacitly by those students who have acquired adequate preparation in reading skills from the primary school. Overwhelmingly these are students who began school with intensive experience of reading in the home. In this way the practices of the secondary school ensure that it is primarily children of tertiary educated parents who are destined to matriculate to and graduate successfully from universities, functioning to reproduce socioeconomic class structures while ostensibly providing equal education opportunities to all members of the society.

At the scale of teacher-learner interactions, the task of students is to respond to teachers' questions in classes. Teachers then elaborate on student responses, using them as stepping stones to build the field of the lesson in steps while monitoring and engaging students through interaction. As in curriculum and lesson cycles, student responses are always evaluated. Successful responses are those that provide a platform that the teacher needs to elaborate. However in any such interaction it is usually a minority of students who respond to teacher questions, receive the teacher's affirmation, and are thus best positioned to benefit from elaborations. This minority is typically those who have acquired the field most successfully from readings and preceding lessons. All teachers depend on these students to provide the responses they need to take the next step in building the field of the lesson.

ACADEMIC FIELDS, ACADEMIC TEXTS AND ACADEMIC LANGUAGE

The next step in the analysis is to identify the levels of text-in-context that are focused on in each academic learning context. Firstly, academic programs are universally planned and taught in terms of the field of study, whether the field is natural or social sciences, medicine, engineering, law, literary studies, etc. Yet academic fields have no existence other than in the academic texts in which they are written and read. At the level of the field, knowledge is built up through a sequence of texts, each of which introduces new information and perspectives, that build on previously read texts. Understanding any one text depends on knowledge of the field acquired in reading others.

To this end, academic courses tend to be sequenced so as to build up the field in steps, and course readings are ideally selected with this sequence in mind. This is perhaps most apparent in fields such as natural sciences, that are organised as 'vertical knowledge structures' (Bernstein 1999). Each week's study in such courses typically covers a topic that builds on the previous week's topic and provides a foundation for the following topics. Textbooks in such fields also tend to be organised on these principles, covering each sub-topic of the field in considered steps, building more general and abstract principles as the course unfolds.

The vertical knowledge structures of such fields contrast with 'horizontal knowledge structures' in fields such as social sciences and humanities, which are organised in series of segments rather than increasingly general categories. Examples include history which is learnt as series of historical episodes and their interpretations, or literary studies that include series of text interpretations. Nevertheless courses in these fields are also organised by principles for sequencing knowledge acquisition, and course readings may be selected accordingly.

So academic practice does typically attend to the highest level of skills required for reading, i.e. the sequencing of the field of study, so that field knowledge builds in manageable steps. This concern with sequencing the field also extends back into the senior high school, over which the academic professions have significant direct or indirect influence, so that topics covered in the high school prepare elite students with foundation knowledge in various fields. As with academic practice, little attention is given in the secondary school to the other levels of the reading task, the patterns of discourse and wordings in which each field is realised.

SUPPORT PROGRAMS

In an education system that has evolved to produce the kinds of unequal outcomes outlined above, this failure to prepare students for the tasks of academic reading at the levels of the text and the sentence has been accepted practice for generations. But in a rapidly changing economic and educational climate these inequitable practices have become increasingly dysfunctional. More and more students are entering further education with inadequate skills in academic reading, leading to crises for universities in developing nations, as well as for western universities that are taking high proportions of fee paying students from developing nations.

Three broad types of responses to these growing problems have emerged. One is to provide remedial literacy programs for those students most at risk, alongside or preceding their academic programs. Another is to slow the pacing of study in the first years so that less prepared students have more time to learn the academic fields. A third is to reject the value of academic literacy altogether and celebrate instead the ‘literacies’ that students from marginalised communities bring with them to academia.

One argument of this paper is that each of these approaches has a valid basis, but that each contains gaps that inhibits their effectiveness for accelerating students’ success. First academic literacy programs are frequently based on three premises, that originate in practices of language study deriving ultimately from medieval scholastic traditions.

One common assumption is that the proper focus of literacy teaching is on skills in writing. But writing is not the means for academic learning; that is the function of academic reading. Writing is the means by which we demonstrate what we have learnt from reading. As pointed out above, successful students not only acquire knowledge of academic fields from their reading, but equally the patterns of academic language in which to demonstrate it in their writing. Attempting to teach writing before reading thus puts the pedagogic cart before the horse. If students develop skills in academic reading as a result, it is only incidentally and therefore an inefficient approach to improving reading skills.

A second common practice of academic literacy programs is to treat grammar as the proper focus of literacy teaching, whether these are the grammatical rules of traditional syntax, or elements of meaning in more contemporary functional grammars. However patterns of grammar are just one dimension of the literacy task.

As outlined above, the tasks involved in academic reading and writing involve three levels. Firstly, the student must have sufficient knowledge of the broader academic field to recognise the particular topic of the text; secondly, the student must be able to follow the sequence in which the field is presented by the text; and thirdly the student must be familiar with the patterns of academic language in each sentence and paragraph, in which the information is presented.

Academic texts differ from other types of texts particular in the density of information they present, and they have evolved certain patterns to facilitate their reading. For example, at the level of the text, the sequence of information is predicted for the reader by a hierarchy of indicators, starting with an abstract and/or introduction, followed headings and introductory paragraphs in each section, to topic sentences that begin each paragraph, each of which provides a map to experienced readers of the patterns of information they can expect.

At the level of the sentence, dense technical and abstract meanings are presented in chunks of information, as starting points and end points of each sentence, that flow from one sentence to the next. That is, the information presented in each sentence is picked up as a starting point for the next sentence, followed by new information towards the end of the sentence, which provides a context for the next, and so on.

So academic texts organise their fields in hierarchies of information, from introductions, to sections, to paragraphs, to sentences, to groups of words within sentences. Experienced academic readers tacitly recognise the predictive functions of these waves of organisation, at the scales of the text, the paragraph and the sentence, and are thus guided through a text.

Academic lectures tend to follow comparable textual organisation, so that experienced academic readers are similarly guided in following lectures. In addition their existing knowledge of the academic field may support them to recognise what course readings are about, and if they have read the set texts before the lecture they will also recognise its content.

However these waves of information at each of these scales are but one aspect of patterns of meaning at the level of the text. Others include, firstly the sequences of technical and abstract meanings that build academic fields as a text unfolds from sentence to sentence, secondly the logical relations that link sentences and paragraphs together in coherent series, thirdly the chains of reference that enable readers to keep track of what is being discussed and referred to at each step of a text, and fourthly the complex patterns of evaluative language that make judgements about the topic of discussion and persuade the reader to the writer's point of view.

Experienced readers consciously recognise the academic field of readings and lectures, and less consciously absorb the patterns of discourse in which it is realised. When it comes to writing, they may consciously select elements of the field, and more or less consciously select elements of discourse patterns in which to express it. Students' writing is assessed overtly on its critical presentation of a field, and less overtly on its patterns of discourse, advantaging those who have more experience in recognising and appropriating textual structures.

Grammatical wordings within sentences, complex as they may be, are merely the means by which these text level patterns of meaning are realised from sentence to sentence. So starting with features of sentence grammar is an upside-down and thus inefficient approach to teaching the plethora of resources that students actually need for successful reading and writing of academic texts.

Focusing on writing instead of reading, and on sentence grammar instead of text patterns are both problems from the perspective of the language task. A third common problem of support programs is pedagogic, that is getting students to produce attempts at writing and/or grammar tasks, and then teaching by correcting their errors. Similarly, where reading is a component of academic support programs, a common practice is to present students with texts to read, followed by series of comprehension and grammar tasks, which are then evaluated.

In most learning contexts outside of the school, tasks are first modelled for learners who then practise them with the guidance of a teacher, so that they are successful at their learning tasks from the outset, and build on their successes towards independent competence. Only in school or academic contexts are learners required to produce textual performances that are then criticized and ranked. This practice has more evaluative than instructional value; it is embedded in the stratifying function of formal education, that relentlessly ranks students on the hierarchy of success and failure, no matter whether the pedagogic theory is traditional, progressive or critical. A more effective and motivating practice is to support all students to produce successful performances in the first instance, by showing them how to recognise and use the language resources of accomplished writers.

Secondly, slowing the pace of instruction for less prepared learners also has a long history in educational practice. It is potentially a logical solution, as struggling students clearly need more time to accomplish learning tasks, and it has the advantage of allowing more time for skills development as the content is studied. However we should also consider the outcomes of slower pacing in the school contexts where it has been applied for generations.

Teachers are well aware that school students in slower paced programs are unlikely to ever catch up to the level of the those in more advanced programs. The underlying reason for this is that the skills required for succeeding in advanced programs are rarely taught effectively in slower paced ones. These are of course skills in independently learning from reading.

In order to teach these skills, students must learn to engage critically with texts at the same level as advanced programs. Since they do not have the skills to do so, and teachers frequently do not know how to teach these skills, a common response is to use less challenging texts. Accordingly academic foundation programs often provide texts that are rewritten in simpler language with less technical detail, with the intention that students will be able to read them and thus complete their less challenging courses. This practice potentially leads to a two-tier education system with graduates who are more or less qualified in their disciplines.

An alternative response is simply to give students unmodified texts, in the hope that they will read at least some of them. In practice, students who cannot read these academic texts with understanding frequently do not even attempt to do so, so that lecturers are forced to try covering all the course content orally in lectures and in accompanying notes. As the writing skills of these students are also inadequate, these programs may be accompanied by remedial writing programs, along the lines outlined above. But as such literacy programs suffer from the shortcomings described, they are unlikely to overcome the problems these students have with academic reading. In either case, the outcome is the same; students in these courses may not graduate with the same level of field knowledge as students in standard academic courses.

Slowing the pacing with extended curriculum programs is a potential partial solution to the problem of inadequate academic reading skills. But it can only work effectively if students are taught to read and learn from texts of the same standard and quantity as those in advanced courses.

The third approach, to reject the value of academic literacy in favour of learners' existing cultural and language competences, also has a long history. It was a rationale, for example, used to justify the two-tier education system established by the British colonial regime in India in 1836, in which students from higher caste families were taught an English curriculum designed to prepare them for roles in the imperial administration, while the rest of the population were to be taught in their community languages (Mahboob 2002).

The apparently liberal argument for valuing learners' existing competences above school knowledge also swept through English speaking education systems in the 1970s and 80s following the rapid expansion of school and university entry to wider sections of the population (Alexander 2001). In schools it was known as progressivism, learner-centred, or 'whole language'; in adult education it was known by names such as self-directed learning. Today this very old idea has been disingenuously rebadged as 'new literacies'.

The results of the pervasive adoption of these kinds of progressivist pedagogies is documented in Leigh & Ryan 2008, Rose 2004, 2005 for Australian schools; essentially there has been almost no change in the inequality of educational outcomes, and average literacy and numeracy standards have not improved significantly since the 1960s. The unfortunate consequences of their adoption in the South African school system in the past decade have also been documented by Reeves and Muller 2007, among others.

It is worth noting that the most articulate advocates of theories such as new literacies, and critics of the hegemonic discourses of the academy, are themselves typically highly educated graduates of elite academic programs, masters of the academic discourses they claim will pollute the consciousness of students from 'other' communities. One cannot help but ask whose interests are served by trying to protect these students from the academic literacy skills that they themselves possess. These issues are examined in detail by Muller 2000 for academic contexts, and by Nakata

1999, Rose 1999 in the context of Indigenous education in Australia. Critiquing their adoption in school education in the 1970s, Bernstein gave us the following prescient warning:

> As we move from the written word to the authentic word of the child, it is quite likely that the time dimension of the transmission is changing from the past to the present. If that is so, we must make very certain that the new pedagogy does not lock the child into the present - in his or her present tense. There is a danger that the new educational pull with its emphasis on the aural might well in fact do that unless we seek to understand systematically how to create a concept which can authenticate the child's experience and give him or her those powerful representations of thought that he or she is going to need in order to change the world outside. (Bernstein 1979: 300-301).

There is no question that learners' cultural and language backgrounds must be respected in any education program, and acknowledged as starting points for developing the kinds of academic literacy they need to succeed in tertiary study. However the personal, oral, community, language practices that students bring to academia are not inherently more valuable than the written discourses of the disciplines they have enrolled to learn. What gives learners the power to control their lives, to shape their destinies, to participate equally in the management of their societies, is the ability to articulate their personal and community experience in terms of the abstract discourses of the academy, to be able to put both kinds of discourses together, to understand, critique and enhance both from the perspective of the other.

Overwhelmingly it is members of dominant minorities who are afforded the academic education to do this, and the personal, community perspectives they bring to it are those of their powerful minorities they belong to. What presents the greatest danger to the hegemony of these minorities in control of contemporary societies is the possibility that learners from other communities may be able to do the same, to reformulate the experience of their communities within the powerful discourses of the academy, and to coopt these discourses to the economic and political advantage of themselves and their communities. The way to achieve this is not by locking these students into the competences they and their communities already possess, but to give them access to the resources that their academic teachers control.

SCAFFOLDING ACADEMIC LITERACY

The scaffolding academic methodology endeavours to fill these gaps in academic teaching practices with a set of strategies that are informed by the learning and language models above, and tailored for each academic learning context. The strategies provide four degrees of scaffolding support for academic reading and writing. They include *Preparing before reading, Paragraph-by-paragraph reading* and *Paragraph-by-paragraph text marking*, each of which can be readily embedded in normal lecturing practice, and *Sentence-by-sentence text marking*, which is typically applied in support programs. Both levels of text marking may be followed by jointly making notes and writing a new text from notes, which is usually only possible in support programs.

The strategies begin with developing skills in reading, from which skills in writing are then built. They begin with the patterns in texts through which academic fields are realised, before focusing on patterns of wordings in which discourse patterns are realised. And they systematically integrate skills development in reading and writing at the levels of the text and sentence, with learning the fields of academic courses. Degrees of scaffolding support provided by these strategies are summarised in Figure 4.

Low support

1 **Standard academic practice** (texts scaffold learning)
  - Not reading in class, not preparing students to read, not modelling writing tasks

2 **Preparing before reading** (whole text)
  - What happens in the text (how field unfolds through text)
  - Students read independently -> or in turns in class -> or teacher reads

3 **Paragraph-by-paragraph reading** (chapter/article)
  - Preparation: meaning of paragraph
  - Teacher or students read aloud
  - Elaborate key meanings: define terms/ explain concepts/ students discuss

4 **Paragraph-by-paragraph text marking** (summarise article)
  - Highlight key information in each paragraph
  - Joint writing of notes and summary of text

5 **Sentence-by-sentence text marking** (short passage)
  - Highlight key information in each sentence
  - Joint writing of notes and new text, using patterns from passage

High support

Figure 4: Degrees of scaffolding support

PREPARING BEFORE READING

Preparing before reading is designed to orient students to the textual organisation of texts they are required to read, by giving an oral synopsis of the steps in which the text unfolds, in terms that all students can understand. Having first provided sufficient background to the field of the text for students to understand the topic, the lecturer introduces the text and summarises the sequence of meanings in which it unfolds. This may involve going through the article and giving an outline of each section, or simply summarising its sequence orally.

The outcome is that students will not struggle to recognise what is happening at each stage of the text, allowing them to attend to its detail as they read. This synopsis can be provided in a few minutes at the end of lecture, thus supporting all students to read the following week's course reading with a measure of understanding, no matter what the level of difficulty of the text. In support programs the synopsis may be followed by joint reading of part or all of the text in class.

A variation of *Preparing before reading* is to provide students with a written summary of the reading, in terms that are easy to read. This summary may include activities that require students to review and restate what they have read. They may then be required to read the academic text before the following lecture, as in the standard cycle, or in support programs the academic text may be read jointly in class. In either case the written summary provides students with an orientation to the field and the steps in which it unfolds, that prepares them for reading the academic text.

An extremely valuable feature of *Preparing before reading* is that, in planning how to summarise course readings, teachers' must attend closely to the field as it expressed in course readings, and to the patterns in which it unfolds through the readings. These analyses have three important effects. On one hand they enable teachers to refine and plan the elements of the field that need to be discussed in courses and lectures, to integrate the field of the course, readings and lectures. Secondly they enable teachers to identify and prioritise texts that are most appropriate for the course. And thirdly they introduce skills in text analysis that are based on teachers' existing expertise in their fields, with minimal additional training in identifying language patterns.

PARAGRAPH-BY-PARAGRAPH READING

Paragraph-by-paragraph reading focuses in more detail on the field as it unfolds through each paragraph of a text, and the patterns of textual organisation at the level of the paragraph. Again this can be incorporated in lectures, and in support programs.

A key section of a course reading will be selected, which either the teacher may read, or students may read aloud in turns. Before reading, each paragraph is prepared with a general summary of what it is about in terms all students will understand, but including some of the academic terms of the paragraph. By this means all students, including the one reading aloud, will have a general understanding of the paragraph as it read, no matter the difficulty of the field and language.

It is not necessary that students understand every word of the paragraph, as the general understanding provided by preparation and reading forms a basis for elaborating after reading. The elaboration will focus on key elements of the paragraph, including definitions of technical terms, explanations of new concepts, or discussion building on students' field knowledge, as well as the elements of textual organisation.

There is thus no need to prepare with all the detail needed to understand every word of the paragraph. Rather it is important to keep preparation to a minimum, as too much detail will simply overload and distract students from the task of listening to the paragraph as it is read.

In lectures just one or two key paragraphs may be selected for reading and discussion, to fit into available lesson time. The effect is to explicitly and directly integrate the field as it is expressed in course readings with the oral discussion in lectures, which is normally tenuously related to the field of readings. The direct focus on key passages from readings provides tremendous support for students to then independently transfer this detailed understanding to the remainder of the readings, following the lecture.

In support programs, longer passages of texts may be selected for reading, typically from the start of the article or chapter, preceded by *Preparing before reading* for the whole article, so that the reading and discussion of each paragraph is embedded in a holistic understanding of the text. More time may also then be spent on elaborating discussions, linking key elements with students' existing understandings. Typically a third to half of an article may be jointly read in this way, and students will complete the reading independently.

PARAGRAPH-BY-PARAGRAPH TEXT MARKING

Paragraph-by-paragraph text marking provides the next level of support, by marking key information in a text or passage. The aim of this activity is to support students to identify key information in each paragraph of a text, and to discuss it in more detail. Text marking follows *Paragraph-by-paragraph reading*, so that student have a global understanding of each paragraph before marking the key information.

This information will typically consist of one or more groups of words in one or more sentences of the paragraph. As each wording is identified, students will highlight or underline it in their copies of the text, and it may also be marked on a copy projected at the front of the class.

Three general principles can be used to identify key information:

- Most paragraphs begin with a **topic**, that predicts what the paragraph is about. The topic is typically a group of words located towards the end of the first or second sentence. (The first sentence may be a literary device, or a summation of the preceding paragraph, so that the topic is presented in the second sentence.)
- Many paragraphs come to a **point**, that distils what the writer has said about the topic. The point is typically a group of words located towards the end of the paragraph.
- Some paragraphs do not come to a point, but consist of a sequence of steps in an explanation or argument. In this case each main step in the explanation or argument may need highlighting.

The information in these elements may be sufficient to summarise what the paragraph is about. The rest of its sentences may elaborate on this key information with examples and further explanation. This detail may not be required for making notes from the text. It is important to show students how to highlight the minimal information they need for note making.

To enable students to identify these element of information, the scaffolding learning cycle is applied at the level of classroom interaction.

The task for students is to identify the key information in the paragraph. To prepare them for this task, the teacher provides cues to identify each significant wording, including the position of the wording in the paragraph and/or sentence, and a synopsis or paraphrase of what it means, in terms that all students can understand. Students must then reason from the preparation cue to identify the wording in the paragraph. One student will typically be selected to voice the identified wording, which the teacher will affirm and then tell the class the exact wordings to mark.

After students have successfully identified and marked the wording, their understanding may be elaborated by the teacher with a definition or explanation, or by class discussion, as outlined above for *Paragraph-by-paragraph reading*. The regular patterns of topics, points and other elements may also be pointed out in elaborations.

This cycle of prepare-identify-elaborate is known as the *scaffolding interaction cycle* (Martin 2006, Martin & Rose 2005, Rose 2004, 2007). The scaffolding interaction cycle re-designs typical classroom teacher-learner interactions to achieve three goals. Firstly, instead of simply asking questions of a class, which are predominantly answered by a handful of the most successful students, student responses are carefully prepared with cues that enable any and all students to do the task successfully. If possible the teacher selects students to respond in turn, so that all get an opportunity to engage in the interaction, and most importantly be affirmed for their responses, and not just the few who normally respond.

Secondly, the preparation focuses students' attention on information in the reading, giving them its position and meaning so that all students can actively recognise both the meaning and textual function of the wordings. This active interpretation rapidly accelerates their skills in recognising meanings and patterns of information in academic texts. As students experience repeated instances of these patterns, they soon begin recognising key information with less support from teachers' preparations.

And thirdly successfully identifying meanings expands students readiness for taking on more abstract or technical interpretations as they are elaborated. Such elaborations are the normal instructional function of question-response interactions in the classroom (see e.g. Mercer 2000, Wells 2000), but the scaffolding interaction cycle uniquely enables all students to take on board the higher level interpretations, and integrate them directly and repeatedly with the task of academic reading.

WRITING A TEXT FROM NOTES

What students have learnt about the field and textual patterns through the above reading activities can be capitalised on and extended by jointly writing a new text based on the one that has been read. This involves writing notes from the reading and using them to write a new text. Due to time constraints this activity is not often possible in lectures, but is a valuable activity for support programs. It is far more effective than most writing activities used in support programs, in teaching students the central academic task of using information in reading texts to write new texts of their own.

After marking key information in a sufficient passage of text, these wordings may be written as notes in a dot-point list on one side of the class board, by students taking turns to come out and act as scribes. At this point the students take over control, as the class dictates wordings and spellings, prompted by the teacher where necessary. This joint note making provides many opportunities to further discuss elements of meaning as they are written up, to review the organisation of the text, and to practise spelling and pronunciation of unfamiliar words.

When one side of the board has been filled with dot point notes, these can be used to write a new text on the other side, again with students taking turns to come out and act as scribes. The aim of *Rewriting from notes* is to practise using key information to construct academic texts. The most direct way to practise this is by writing a summary of the reading text from the notes. This supports students to practise organising a text of the same genre as the reading text, as well as using its information in a variety of academic grammatical patterns. The teacher's role in this stage is crucial, to provide students with options for new wordings and sentence organisations, building their repertoire of academic grammar.

To prepare for the global task of writing a new text, the teacher first points out discourse patterns and other key elements in the notes. This gives students the general framework of the text's field and organisation which will be used as a model for rewriting.

Then to prepare for the micro-tasks of selecting new wordings for each sentence, the teacher draws students' attention to each note, further discusses their meaning if necessary. The teacher may suggest alternative wordings, and encourage critical discussion of the way the author constructed the original text, and how students may reconstruct it. The class may then select more commonsense paraphrases for academic wordings in the notes, or they may use academic wordings in different sentence patterns. The teacher may then elaborate by rephrasing the selection, until a new sentence is agreed upon, and written on the board by the scribe.

As each sentence is written up, the teacher may provide further support by asking students to check issues such grammar, letter cases, punctuation or spelling. This joint rewriting thus addresses all levels of the academic writing task at once, from critically re-interpreting the field of reading texts, to organising sequences of sentences in new texts, to practising the selection of academic wordings within each sentence, and even to foundation skills in spelling, punctuation and handwriting.

A more advanced activity is then to use notes from two or more sources to construct a new text. The new text may a different genre from the reading texts, so that the organisation of the new genre will have to be modelled, either by the teacher, or by studying another text of the desired genre. The most supportive strategy for using such models is to follow the sentence patterns of the model text very closely, but inserting content from the reading notes. The model text may be projected as an overhead, so that it can be continually referred to as the new text is constructed from the notes.

A common strategy with academic literacy is to practise note making and rewriting in class, on the first section of an article, which students then complete for their homework assignment. This strategy provides a high level of support for students to successfully write sophisticated academic texts. A similar strategy may also be used when constructing texts from two or more sources. The class may practise this with two sources, and students then incorporate additional sources for their homework assignment. Or a single source may be used in the class, and students then incorporate additional sources for homework.

SENTENCE-BY-SENTENCE TEXT MARKING

The highest level of scaffolding support is provided *Sentence-by-sentence text marking*, which enables students to understand and use the abstract and technical grammar of academic discourse. Following *Preparing before reading*, a short passage is selected for detailed analysis.

Students are prepared to identify key information in each sentence of the short passage, by means of three preparation cues:

- A commonsense paraphrase of the meaning of the whole sentence, which is then read aloud,
- A position cue that tells students where to identify the wording to mark within the sentence (e.g. at the start, or at the end),
- A paraphrase of the wording to mark in terms that all students can understand.

As with *Paragraph-by-paragraph reading*, students then have to reason from the meaning cue to the actual wording in the sentence. Once they have successfully identified and marked each wording, its meaning may be elaborated by defining technical or literate wordings, by explaining new concepts or metaphors, or by discussing it in the light of their experience and knowledge of the topic.

In this way all students are given access to the total complexity of language patterns in the passage of text, but in manageable steps. The detailed study of a short passage enables students to read the remainder of an academic text independently, with a high level of critical understanding, no matter what their starting point in academic literacy.

Sentence-by-sentence text marking is far more effective than other grammar level activities used in academic support programs, in teaching students to recognise and use the dense complex patterns of academic grammar. This is because these patterns are approached from the perspective of the meanings they realise, thoroughly contextualised within the larger patterns of meaning in actual reading texts, and the academic fields these text realise. More than all other scaffolding literacy strategies, *Sentence-by-sentence text marking* is the pedagogic engine that enables the extraordinary rates of improvement in academic literacy reported in Rose, Rose, Farrington & Page 2008, and for schools contexts reported in Culican 2006, McRae et al 2000, Rose 2006.

In order to teach this process effectively, teachers should ideally have a working knowledge of the patterns of academic grammar from a functional perspective (e.g. Halliday & Martin 1993, Martin & Rose 2003). They are then in a position, not only to systematically draw students' attention to these patterns, but to make informed choices about the terms they introduce to talk about these patterns, i.e. the metalanguage, or language-about-language, that they need to use in the classroom.

REWRITING THE PASSAGE FROM NOTES

The wordings that have been marked in each sentence of the short passage can now be written up as dot point notes on the class board, which are then used for rewriting the passage, guided by the teacher. This sentence-by-sentence activity provides a powerful scaffold for all students to acquire the sophisticated language resources of accomplished academic writers.

The approach at this stage can vary with the genre of the text to be written. With factual texts such as reports and explanations, the content of the reading passage is scribed as notes, which are then rewritten in wordings that are closer to what students would write themselves. While the field of the new text is the same as the original, together with its textual organisation, the new text may be less highly written.

With more evaluative texts such as arguments or literature reviews, it is not the content of the reading text that is used for writing a new text, but the language patterns it uses for evaluating points of view, together with its textual organisation. In these cases the content of the new text is different, as it is about different issues or texts under review, but the patterns of evaluative language follow the original very closely.

SCAFFOLDING SUPPORT, INDEPENDENT PRACTICE AND ASSESSMENT

Each of the degrees of scaffolding support described above enable all students to succeed at each step, in each component of the tasks of academic learning, from reading texts with critical understanding, to recognising key information and language patterns, making notes, and using this information and language patterns to write texts of their own.

Each strategy begins with teachers guiding students to do these tasks together, then handing over control to them to do the tasks themselves. The principle of guided practice followed by handing control is applied at the scales of the course, the lesson, and teacher-learner interactions. At each of these scales, students are always evaluated on their independent performance of tasks. But following the scaffolding principle, what is measured in evaluations is not simply the varying ‘abilities’ of students, but the effectiveness of the preparations provided by the teaching.

CONCLUSION

The strategies outlined here have proved highly effective at providing students in higher education with the skills in academic reading and writing they need to succeed, but their implementation presents academic programs with a number of challenges.

Firstly, in order to systematically integrate teaching of reading in academic practice, teachers need to consider adjusting the traditional academic cycle of independent reading followed by lectures. On one hand some lecture time must be devoted to preparing students for the following week's readings. On the other, some time must be devoted to explicitly elaborating on the previous week's readings, by analysing passages in the class.

To do so, academic teachers must look closely at the texts they are asking students to read, to plan *Preparing before reading*, and to select key passages for *Paragraph-by-paragraph reading* in class. The latter requires even closer planning, to identify the wordings they want students to focus on, and consider how they will discuss them with the class. The most important skill needed for these analyses is the knowledge of the field that academic teachers already possess. But they also need some training in selecting and analysing texts and text passages, and they need to find preparation time for the analyses, particularly when starting out.

Secondly, in order to teach the intensive strategies for academic reading and writing described here, academic support programs need to consider adjusting the priorities traditionally given to writing, grammar, and correcting independent performances. Rather the pedagogic starting points need to be with joint deconstruction of course readings, scaffolding students to recognise meanings at the levels of the text, then paragraphs, sentences and word groups. Once students have a strong command of the meanings in reading texts, teachers can guide them in jointly reconstructing these meanings, before asking them to write their own texts.

To do so effectively, academic support teachers need to be able to select and analyse the discourse and grammar patterns of reading texts, from the perspective of their meanings, rather than the traditional perspective of rules for correct syntax. This task requires a working knowledge of functional linguistics, at the levels of discourse semantics and lexicogrammar. Furthermore, support teachers need to be able analyse and plan the scaffolding interaction cycles described above, to design intensive reading lessons that support and engage all students. With these tools, support teachers are in a position, not only to rapidly improve their students reading and writing skills, but to guide their colleagues in academic disciplines in the selection and analysis of texts for integrating in their teaching practice.

Such adjustments in practice, and enhancement of skills, demand a significant commitment from academics, from support teachers, and from their institutions. But if our goals for higher education are inclusion, participation and enhancement for all members of our communities, the outcomes of the methodology will prove this commitment worthwhile.

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