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justifying
what we do:
criteria for the selection of literacy and thinking tools

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Teachers of English, along with teachers from across the curriculum, have a moral and professional responsibility to nurture literate thinkers. In this article I argue that teachers who accept this responsibility stand to teachers who don't as imagination stands to memory, as co-construction in a discursive community of practice stands to transmission teaching, and as a sense of what strategic English teaching might be to what it sometimes is. Strategic teachers of English, like literate thinkers, deploy a range of literacy and thinking tools that help their students construct and deconstruct meaning. But what tools should we teach students? What criteria might we use to select those tools, and ultimately, to justify what we do? Nine selection criteria are proposed below, and then applied to evaluate the *Effective Literacy Strategies in Years 9-13: A guide for teachers* (MOE, 2004). Teachers who use these criteria to select literacy and thinking tools are more likely to nurture literate thinkers. But first, the description of these criteria is set in a wider context that informs the responsibilities of all teachers.

a context for the teaching of literacy and thinking tools

There is little doubt that the State values the teaching of literacy and thinking. The Ministry's *National Administration Guidelines* (NAGs) (1999) state that schools are required to develop and implement teaching and learning programmes to improve student achievement in literacy. Further, the *New Zealand Curriculum Framework* (1993) states, in respect to thinking, that students will "organize, analyse, synthesis, evaluate and use information" (page 18), reflecting Bloom's (1956) taxonomy. And the Ministry of Education's *Key Competencies* (2006)

states that students should engage in creative, meta-cognitive, critical and reflective thinking.

One thing that interests me about the 'Thinking' *Key Competencies* is that caring thinking (affective, ethical and spiritual types of thinking) has been silenced; clearly a type of thinking that can be evoked through the exploration of poetic and narrative realities. At a policy level engaging students in caring thinking is important because it is associated with the expression of values described in the *New Zealand Curriculum: Draft for consultation* (2006) document. The 'Thinking' *Key Competencies* also highlights the role of critical thinking that can be evoked through discussion of truth and justice. These themes are often the moral agenda of literature, and this is a crucial agenda because the moral fabric of the world we are creating is a product of our literacies and thinking. It follows that we cannot change the world without first changing our thinking and the way we use text to represent those thoughts. English teachers are in a powerful position to change the world and have, I believe, a moral responsibility to nurture literate thinkers; students who can use language and who can think.

why teach literacy and thinking tools?

Set within that wider context is several arguments that can be used to justify the claim that teachers (of English) have a moral and professional responsibility to nurture literate thinkers. One argument that reflects the *Key Competencies* is that we need a population that can create new knowledge, think critically and creatively and make connections to what is already known. This argument stems from a

'thinking' or cognitive perspective (Fisher, 2005).

A second argument is that we need students who are literate thinkers to ensure the survival of society (Pinker, 2002). This argument reflects an evolutionary perspective, one that meshes with the economic rationale stated in the *Key Competencies* that argues the centrality of thinking based on societies need to support economic growth.

A third argument is that we need literate thinkers because it is important to reflect on what we know and how we came to know it. This argument reflects epistemological and meta-cognitive perspective (Brown, 1987) that highlight the importance of students' planning, monitoring, regulating and evaluating their learning.

Fourthly, one can argue that we need students who are literate thinkers because it is important to understand how our views are socially manipulated and not always based on evidence. This argument reflects a sociological perspective (Friere & Macedo, 1987), and is especially important in an age when governments and other institutions wield language as a weapon of mass deception. For example, the USA Defence Department deliberately uses pure euphemisms to create disconnections between language, and what that language actually describes when it talks of "pink mist collateral damage" (McGeough, 2005) resulting from friendly fire in the form of a surgical strike by a smart, Peacekeeper missile used to pacify terrorists who, presumably, would not relocate to a re-education camp at Guantanamo Bay where they could engage in asymmetrical warfare, that is hang themselves. This immoral use of language gives no hint of shredded limbs, nor does it apportion blame. Goodness who could object to a surgical strike by a smart, Peacekeeper that results in blood taking a form akin to candyfloss? George Orwell's Squealer is alive and well with a bed in the Pentagon.

As Harold Pinter (2005) has argued cogently, the majority of politicians are interested not in truth but in power and in the maintenance of that power, not in education but in maintaining ignorance through the use of language to weave a vast tapestry of lies. This sociological perspective is important because language is being deliberately deployed, like missiles, by the US Government and industry including the Exon Corporation, to keep thought at bay.

A fifth argument is that we need students who are literate thinkers because we need to develop the language, thinking, emotional and other functionally specialised areas of the brain. This argument reflects a 'brain-based' or neuroscience perspective (Caine & Caine, 1994). And be assured, teachers of English are all brain surgeons. When literature and discussion are used to engage students in different types of thinking we operate on the brain as assuredly as neurosurgeons. The neural fabric of the brain is developed or destroyed during every lesson we teach, and when our teaching is driven by assessment protocols then those protocols also determine what is developed and what is destroyed. And brain surgery is not simple – indeed nurturing literate thinkers through English is as complex as the organ on which we operate.

In the wider context, whatever argument we adopt to justify the use of literacy and thinking tools, trying to embed them into an already over-crowded, over-specified, and subject focused curriculum is not easy. It is made even harder in some secondary schools characterised by unproductive, hermetically-sealed silos of subject-specific discourses that too long ago created intellectual no-fly zones, and that too long ago closed down the kinds of interdisciplinary dialogues essential for the development of curriculum that nurture literate thinkers. All teachers have a moral and professional responsibility to nurture literate thinkers because society needs students who can use language and who can think strategically.

Within the context of that somewhat extenuated prologue I want to development my argument in respect to justifying what we do by focusing on two questions.

Question one asks: What criteria might teachers (of English) use to justify their selection of literacy and thinking tools designed to foster literate thinkers? Question two asks: How does *The Effective Literacy Strategies in Years 9 – 13: A guide for teachers* (MOE, 2004), a resource produced to support the *Secondary School Literacy Initiative*, 'stack up' against those selection criteria?

what are literacy and thinking tools?

Literacy and thinking tools are 'construction tools' for the mind. For example, a *Concept Frame* (see Figure 1) allows students to construct notes while reading (about heroes in myths), or to construct what they want to say, or write (about heroes).

Instructions for the use of the *Concept Frame*:

Either: As you <u>read</u> about heroes, use appropriate sections of the *Concept Frame* to record your notes.
Or: Before you <u>write</u> a report about heroes, use the *Concept Frame* to record and organise your ideas.

Figure 1. A *Concept Frame* about heroes

A Hero is...	A hero can...
1. Brave	1. Do amazing things
2. Adventurous	2. Change the way we think
3. Skilful	3. Give us an identity
Examples of heroes are...	**A hero has...**
1. Janet Frame	1. Determination
2. Kate Sheppard	2. Individuality
3. Jean Batten	3. Extraordinary ability

The *Concept Frame* serves as a construction tool for the mind of a reader or writer. Just as aircraft engineers use a set of tools to construct aircraft so too literate thinkers can use a range of literacy and thinking tools to construct and deconstruct texts. Like the tools used by aircraft engineers, these are purpose-built for the job. For example, the purpose of a *Concept Frame* is to evoke attribute thinking – in Figure 1 the student has listed the attributes of a hero. Other literacy and thinking tools are designed to evoke cause and effect thinking essential to understanding the psychological disposition of characters. Aircraft engineers frequently use two or more tools in combination – a clamp and a rivet gun to fit an airframe. Likewise, students might complete a *Brainstorm* about heroes prior to recording their ideas on a *Concept Frame*. Aircraft engineers use more or less technologically sophisticated tools depending on their technical ability and task demands. Similarly, literacy and thinking tools can be, in a developmental sense, more or less challenging.

So, what criteria might we employ to justify our selection of literacy and thinking tools designed to nurture literate thinkers? I want to suggest nine criteria, and acknowledge this is not an exclusive list, and to describe some in more depth than others.

criteria for the selection of literacy and thinking tools

The criteria discussed below are that literacy and thinking tools might be:

1. Teaching and learning focused
2. Smart
3. Subject-specific
4. Text-linked

'Give a family a fish and they will eat for a day; give them a fishing line and they will eat for a lifetime' Teaching tools are like fish, but learning tools are like fishing lines.

5. Thought-linked
6. Brain-friendly
7. Developmentally-appropriate
8. Assessment-linked
9. Culturally-responsive

It is beyond the scope of this paper to assert in detail why these particular criteria were chosen, but an introductory comment is provided with each criterion that hints at the theoretical justification underpinning the criteria, together with references to the literature.

1. teaching and learning focussed

One dimension of learning in secondary schools is to progress students from a position of dependence on teachers toward independence as learners. This progression can be reflected in the design and selection of teaching tools and learning tools. The difference between teaching tools and learning tools is like the Chinese proverb: **'Give a family a fish and they will eat for a day; give them a fishing line and they will eat for a lifetime'**. Teaching tools are like fish, but learning tools are like fishing lines. For example, the *Pre-Reading* tool is a learning tool. It prompts students' to design questions around titles and sub-headings prior to the close reading of a non-text, and to monitor their understanding of that text by asking those questions while they read. It is a tool that enhances reader comprehension and recall. This tool is transferable to most other texts. As a learning tool it enhances students' self-efficacy and engagement (Alvermann, 2002).

In contrast, most teaching tools such as worksheets that require students to match a list of words describing literacy devices to their definitions will never foster students as independent learners, although they serve other purposes.

2. smart

In terms of efficient teaching and learning, teachers and students benefit most from tools that have multi-modal application. Smart tools are efficient because they help students engage in the types of thinking associated with both receptive (reading, listening and viewing) and creative (speaking, writing and presenting) language modes. For example, the *Concept Frame* (see Figure 1) can be used by writers to record, order and link information prior to writing a report or description. Likewise, the same tool can be used by readers as a note-making framework and, when complete, used by readers to think critically about whether an author had successfully selected, ordered and linked information about their topic. Because the *Concept Frame* tool can be used to efficiently facilitate thinking associated with both receptive and creative modes it is consistent with the 'smart' criterion. Smart tools have utility and are most likely to be selected as core literacy and thinking tools.

3. subject-specific

Most secondary schools are structured into subject-focused departments. Given the often contrasting types of texts and disciplined thinking associated with different subjects one might reflects the need for subject-specific tools. Consequently, the 'subject-specific' criterion acknowledges that some tools are best suited to English, others to science, social studies and so on. Similarly, some airframes are engineered for wings and others for fuselage.

For example, a complex *Plotline* (see Figure 2 on the next page) will, more often, be used in English than mathematics and physical education because teachers of English often require students to read, write and view temporally and episodically structured texts. A *Plotline* tool enables students to record narrative episodes along a line, and then elaborate each episode using a problem, (internal) responses, actions and outcome episodic framework. Embedded in this framework are cues to types of thinking more often used in English (and history) than other subjects. A temporal sequence is recorded above the plotline.
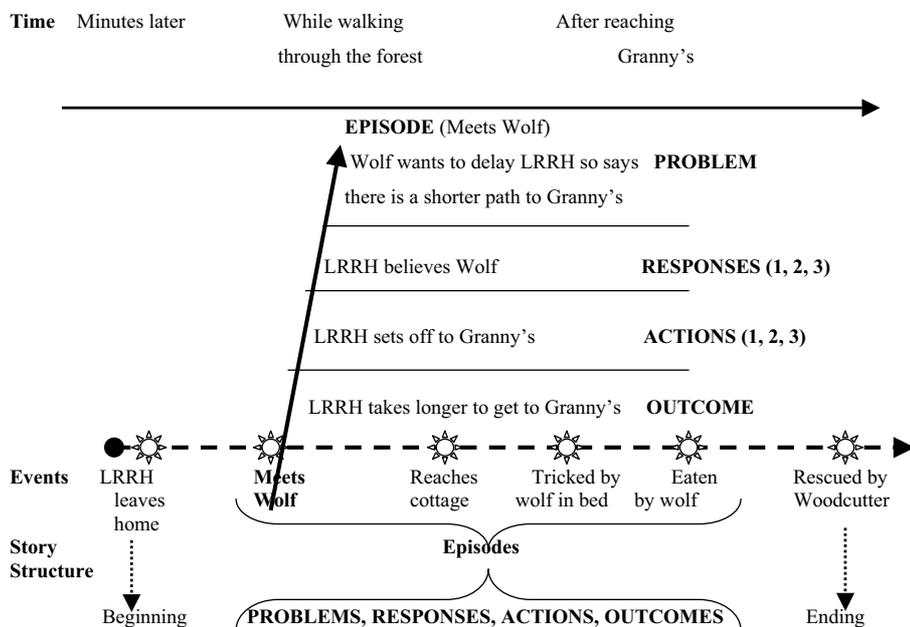
Time   Minutes later   While walking   After reaching
                                   through the forest   Granny's

EPISODE (Meets Wolf)

Wolf wants to delay LRRH so says   **PROBLEM**
there is a shorter path to Granny's

LRRH believes Wolf   **RESPONSES (1, 2, 3)**

LRRH sets off to Granny's   **ACTIONS (1, 2, 3)**

LRRH takes longer to get to Granny's   **OUTCOME**

Events   LRRH   Meets   Reaches   Tricked by   Eaten   Rescued by
             leaves   Wolf   cottage   wolf in bed by wolf   Woodcutter
             home

Story   Episodes
Structure

Beginning   **PROBLEMS, RESPONSES, ACTIONS, OUTCOMES**   Ending

Figure 2. **A complex *Plotline* based on *Little Red Riding Hood***

The *Plotline* tool is also consistent with both the 'smart' and 'learning' criteria because students can use it independently to construct notes while reading, or to plan prior to drafting a narrative.

4. text-linked

The text-linked criterion is closely aligned to the idea that subjects are defined by their texts and associated types of disciplined thinking. The 'text-linked' criterion more specifically acknowledges a relationship between generic text-types (reports, arguments, explanations, various narrative forms), and specific literacy and thinking tools. It is argued that if a tool reflects the linguistic features of a text and evokes the same type of thinking as that text, it should be used in association with that text type. For example, it seems most appropriate to use a *Plotline* (see Figure 2) when reading or writing a narrative because both the tool and the textual features engage students in types of 'narrative thinking'. Specifically the *Plotline* reflects the linguistic features of a simple narrative episode

(problem, response, action and outcome) together with temporal features along the 'Events' plotline. Likewise, because the *Concept Frame* evokes attribute thinking, (the 'is a', 'has a', 'can' and 'are' attributes of an objects, event or idea) and report texts represent the outcome of an author engaging in attribute thinking, they should also be used together. This text-to-tool synergy is consistent with the 'smart' and 'subject-specific' criteria.

5. thought-linked

A general justification for this criterion is that the more ways we have of thinking the more ways we have of knowing. Remembering a plot is one way of knowing about a novel, but evaluating provides a different (and more satisfying) way of knowing about the textured layers of an authors' intentions. In contrast to text-linked types of thinking, the thought-linked criterion provides for a closer focus on generic types of thinking. Consistent with a definition of literacy as language in use – the word 'use' implying that we think through language, the

thought-linked criterion can be used to justify the selection of tools that evoke different types of thinking. A three level classification system might be applied to identify different types of thinking.

The first is the 'skill-level' classification proposed by Anderson and Krathwohl (2001) who revised Bloom's (1956) taxonomy. Their taxonomy encompasses the six cognitive domain processes of remembering, understanding, applying, analysing, evaluating and creating. I believe these domain processes have particular utility when they are equated with NCEA achieved, merit and excellence levels.

The second 'generic-level' classification encompasses memory, creative, critical and caring types of thinking (Whitehead, 2004). De Bono's (1991) creative thinking tools and Paul's (1992) critical thinking tools are probably more widely understood generic-level tools than mnemonic tools (Whitehead, 2004) that evoke memory thinking and aid recall. Caring thinking tools, especially those described by Stephan Millett (2003), Michael Pohl (2000), Matthew Lipman (1977) and others, are used extensively in schools with religious character. These tools evoke thinking associated with ethical and affective types of caring thinking that I referred to earlier.

The third 'reflective level' classification is meta-cognitive thinking. Tools associated with this type of thinking help students' monitor, regulate, fix-up and evaluate their 'on-line' learning. I would also like to acknowledge the role of intuition (Atkinson & Claxton, 2000) that does not seem to fit with any of these three classifications, and note that that not all leaning is the result of assessment driven, curriculum dictated, deliberate acts of teaching.

These three thought-linked classifications can be used to justify the selection of a range of literacy and thinking tools. *Acrostics* are consistent with the Anderson and Krathwohl's 'skill-level' remembering domain. The *Double Bubble* tool (Hyerle, 1996) engages students in comparative analysis consistent with the analysing 'skill-level' and critical thinking at the 'generic-level'. Likewise, the *T-Chart* tool (Whitehead, 2001), that helps students evaluate arguments prior to writing an exposition or after

reading one, is linked to the evaluating 'skill-level' and the 'generic-level' of critical thinking. Finally, the *Alphabet Monitoring* tool (Whitehead, 2004) which requires students to annotate a text using to 'MI' for main idea, or 'A' for agree, or 'CTO' for check this out, engages students in the third classification of meta-cognitive thinking.

It would be unwise to assume a single, clear and certain link between literacy and thinking tools and these three thought-linked classifications; tools may evoke both caring and critical thought. Indeed, the multiple thought-linked associations evoked by any single tool render popular classification such as 'higher order thinking' as unspecific and problematic.

But the fact that tools might evoke multiple types of thinking should not deter teachers of English from their professional responsibility to understand the types of thinking associated with their use. Nor should it be used to dismiss this criterion as a means of justifying what we do. All teachers need to be aware of the language and thinking demands of texts they place before their students, and use tools that make the language and thinking of those texts accessible to their students.

6. brain-friendly

This sixth criterion for justifying the selection of literacy and thinking tools may require you to make a quantum leap into the unknown. This criterion reminds us that the way we teach should align with an understanding of how the brain learns, naturally (Caine & Caine, 1994; Wolfe, 2001). Brain friendly tools reflect understandings from cognitive neuroscience, that is, understandings based on research into how we learn, remember and think, and how the brain develops and functions… and that's a scary thought.

The *Meaning Grid* tool (see Figure 4) that requires students to list words that describe characters and then rate characters in relation to these words, is consistent with the brain-friendly criterion. This tool requires students to list descriptors for each of the main characters across the top of the grid then rate each character against each descriptor. Finally,

students construct comments about the information recorded by reading down and across the ratings on the grid. This tool aligns with the brain's innate ability to deceive, cooperate, empathize and read the body language of others. This ability is realized when we infer the desires and feelings of others and predict their intentions, an ability known as having a 'theory of mind'. It is a 'pre-wired', automatic function of the front area of the brain (the prefrontal cortex) and is, almost without exception, a human ability that develops between the ages of 3 and 5 years. Most of us are 'mind readers', but some including autistic people and some savants, although clearly gifted in other ways, are not. The unselfconscious behaviour of autistic children; the fact that they seem unconcerned about what others might be thinking about them, suggests that at the heart of autism is a loss of this innate ability.

Having a 'theory of mind' is probably linked to the operation of functionally specialized, long nerves, called spindle cells (because of their shape). In Figure 3, the MRI slides show the location of active spindle cells (located at the cross hairs) in the front of the brain. It is also likely that having 'theory of mind' ability is distributed rather than confined to this active module of spindle cells; emotional and face recognition areas of the brain are also involved in the development of this ability.

The *Meaning Grid* (see Figure 4) is consistent with the brain-friendly criterion because the use of this tool requires students to construct a theory about the mind of each character.
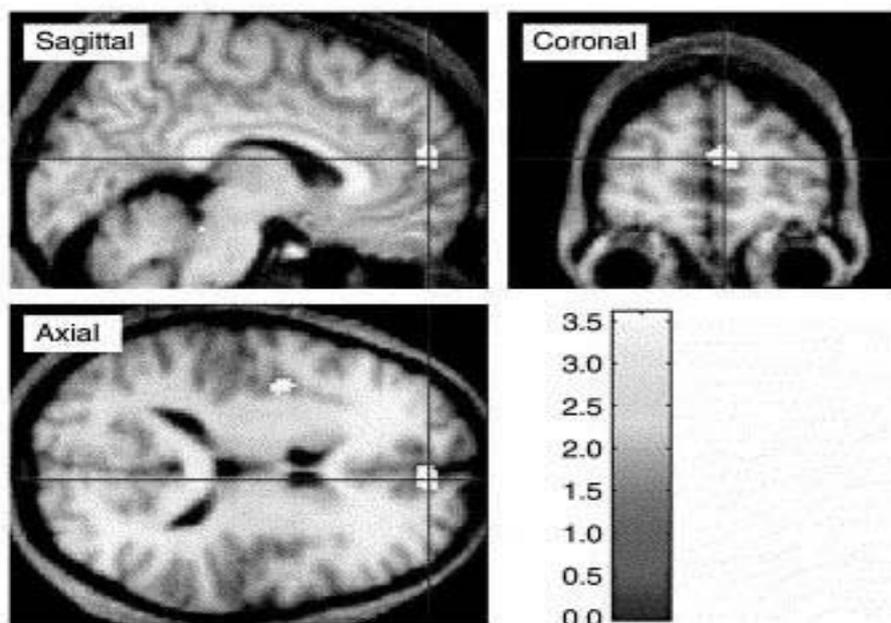

7. developmentally-appropriate

Individual differences in age, academic ability and maturity prompt us to select different textbooks for streamed classes and to engage in differentiated instruction. Meeting individual needs and providing appropriate intellectual challenge to students is the raison d'etre for the developmentally-appropriate criterion. Experience suggests that teachers tend to introduce tools (like those described in *Effective Literacy Strategies in Years 9 to 13: A guide for teachers)* in their most complex form (Wright, May, Smyth, Whitehead, & Donaghy, 2004), when perhaps a gradual introduction of simple, intermediate and complex developmentally-appropriate versions of each tool might provide a more beneficial scaffold.

This proposal raises the possibility of designating a developmentally-appropriate set of core literacy and thinking tools that can be scaffolded from Y3 – 13. For instance, the introduction of a simple *Meaning Grid* used as a teaching tool in Years 3 – 5 might then progress to the introduction of an intermediate and then complex *Meaning Grid*, used independently at Years 5-8, and beyond (see Figure 4).

Simple — Whole story rating
Intermediate — Begin / End
Complex — Begin | End / Episode | Page
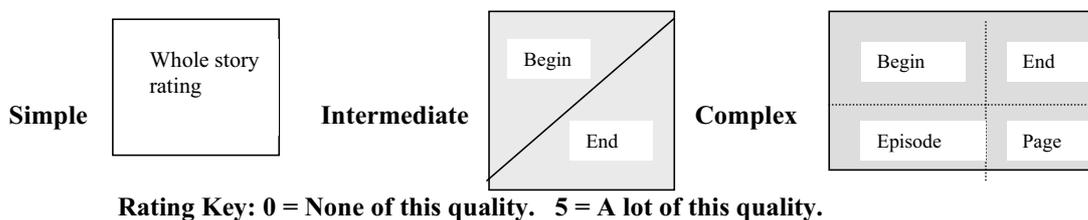
Rating Key: 0 = None of this quality.   5 = A lot of this quality.

Characters / Descriptors	Little Red Riding Hood	*Grandma*	*Wolf*	*Woodcutter*	All / Some / None / Few statements
Naïve	5 1 1 p. 14	3	0	0	All the males were not naïve and all the females were naïve.
Feeble	3 2	5	2	1	Some of the females were very feeble.
Cunning	1 3	1	5 1	4	All the females were not cunning.
Courageous	2	1	4 0	5	All the males were courageous.

Listing or contrast statements	GM was quite naïve, very feeble, not cunning or courageous. (Listing) In contrast to the Woodcutter, LRRH was naïve and quite feeble. (Contrast)

Figure 4. **A composite, simple, intermediate and complex level *Meaning Grid***

The forms of assessment we use have a powerful
influence on the kinds of teaching students encounter,
and the kind of learning students accomplish

The simple *Meaning Grid* requires students to provide a single whole-story rating against each character descriptor and then engage in further information processing by examining ratings across and down their grids. The intermediate *Meaning Grid* requires students to provide beginning-of-story and end-of-story ratings, and the complex *Meaning Grid* requires multiple ratings. In addition, the complex *Meaning Grid* is accompanied by a set of critical questions. These questions reflect a critical literacy perspective and assist students to: (i) deconstruct identity. (Why did the author construct females as naïve and feeble? Are all females like this?); (ii) comprehend power relationships. (LRRH was sent into the forest by her mother. Should mothers do this to their children?); (iii) comprehend how authors' construct knowledge. (What did we learn about the Wolf? How did we learn this?); (iv) comprehend what an author believes or values. (Does the author believe women deserve cautionary tales but men do not?). At the complex level students using a *Meaning Grid* analyse and synthesize information.

Thus, the three developmentally-appropriate levels provide students with additional and more complex challenges that they encounter first when we use each of the three levels of the Meaning *Grid* as teaching tools, and then when students' use each level independently. The developmentally-appropriate selection criterion reminds us that students have different needs and abilities, that we need to differentiate our instruction, and that we can justify the selection of literacy and thinking tools at three developmentally-appropriate levels of challenge.

8. assessment-linked

The argument for the inclusion of an assessment-linked criterion can be reasoned by appealing to: (i) the necessary symbiosis between formative assessment and lesson design (Clarke, 2001) and (ii) the positive effect on learning that can occur when we test like we teach. Further, the assessment-linked criterion reflects the relationship between observations of students' literacy behaviour, together with data obtained from formative and summative literacy and topic tests, and the selection

of literacy and thinking tools. For example, observations of limited vocabulary (oral and written), together with low *Vocabulary Recognition* and *Range of Vocabulary* sub-test scores on *Star* (New Zealand Council for Educational Research, 2001), or low scores on the *Progressive Achievement Test: Vocabulary* (PAT) (New Zealand Council for Educational Research, 1999) may prompt teachers to use vocabulary tools described in Chapter 2 of *Effective Literacy Strategies in Years 9-13: A guide for teachers* (2004)*,* or to use *Acrostic* and *Vocabulary Squares* tools (Whitehead, 2001).

Likewise, observations that suggest students can 'read but not comprehend', together with low scores on the *Star: Sentence and Paragraph Comprehension* sub-tests, or the *PAT: Comprehension* test or on an *asTTLe* (Ministry of Education, 2003) reading test may prompt teachers to use a range of tools that help students read for deeper understanding. Thus the selection, if not the design of tools should reflect our evidence-based understanding of students' literacy and thinking needs.

Secondly, the justification for an assessment-linked selection criterion centres on the positive effect on learning that can occur when we test like we teach. The forms of assessment we use have a powerful influence on the kinds of teaching students encounter, and the kind of learning students accomplish. Thus the adoption of this assessment-linked criterion suggests that there is nothing inherently wrong with assessing what we teach, as long as we, from time-to-time, simultaneously assess how students' encountered and learnt the content. From a teachers' perspective the justification for this assessment-linked criterion centres on the positive effects of testing both what was taught and the literacy and thinking tools used to teach it. From a student's perspective the assessment-linked criterion is about both what was learnt and the tools used to learn it.

Assessments that reflect the use of the literacy and thinking tools students encountered when learning occurred are described as *ecologically valid* (Neisser, 1976). *Ecological validity* presupposes that assessment items are constructed in such a way that students recognize and treat them as familiar and representative of the learning experience. For

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It is part of the moral and professional responsibilities of teachers of English to nurture literate thinkers.

example, a teacher used the *Concept Frame* described in Figure 1 to help her students learn about the role of heroes in myths. The same tool was used to design a formative assessment item for administration during the unit and a summative topic test item - she tested as she taught. She obtained an assessment of content knowledge, the meaning of a hero, and of students' ability to use this literacy and thinking tool, independently all in the one item. That's efficient teaching with a smart, text-linked learning tool, and that is the kind of assessment one would expect to see if literacy and thinking tools were an integral part of an English curriculum. It is, however, not the kind of assessment captured by *asTTle, Star* or *P.A.T.*s. Further, I am unsure how an English curriculum reverse engineered from *asTTle*, might align with ecologically valid assessment or how it would engage the imagination of teachers nurturing literate thinkers in discursive communities of practice (Whitehead, May, & Wright, 2004).

asTTle items, like many assessment-driven classroom discussions, tend to be characterised by certainty and simplicity. I suspect that teachers and students want these forms of assessment and discussion because students are trying to cope with the relentless exposure to information, and because teachers are trying to cope with curriculum and assessment demands. But reality is complex and ambiguous, not certain and simple. Students need to reap the benefits of a synergy between literacy and thinking tools and forms of assessment to help them handle this reality.

9. culturally-responsive

The cultural-responsiveness criterion is linked to the claim that texts are never neutral; that they always have a cultural complexion (Gee, 1999). Culturally-responsive literacy and thinking tools, therefore, help students think about the way different cultures, and more specifically indigenous cultures, see the world. Tools are culturally-responsive when, for example, they reflect the meanings and structural components of indigenous myths (McCraw, 1994) and when those myths are used to scaffold students into the writing of Euro-centric scientific or psychological explanations – the text conventions of the two genre are remarkably similar.

The *Universal Perspective* tool is culturally-responsive because it enables students to engage in particular types of culturally-responsive world-view thinking (Whitehead, 2003). More specifically this tool enables students to appreciate the perspective of people who see themselves as one within a connected universe (connected to nature, society and the supernatural realms). The use of this tool requires students to first, identify whether an author constructed meanings consistent with a universal perspective, that is, connected to a culturally specific world-view, then appreciate the effect on meaning of adopting an alternative perspective, and finally thinking critically about why an author used a particular cultural perspective. Culturally-responsive literacy and thinking tools assist us to communicate interculturally.

Justifying what we do requires, in part, that we identify criteria against which we can select literacy and thinking tools. It is part of the moral and professional responsibilities of teachers of English to nurture literate thinkers.

an analysis of the resource *Effective Literacy Strategies In Years 9-13: A Guide For Teachers*

In the final section this paper I evaluate the *Effective Literacy Strategies in Years 9-13: A guide for teachers* (ELS) (Ministry of Education, 2004) against those nine selection criteria. The ELS resource was produced to support a professional learning programme "…designed to assist secondary school teachers in all subject areas to learn and teach literacy tools and thinking tools to meet the needs of their students" (ELS, p.8). The resource states that "…literacy and language are central to thinking" (p.4) and that tools designed to help students read for deep understanding involve "…thinking about thinking" (p.73).

The first chapter of the ELS provides an introduction to literacy including examples of powerful metacognitive questions students might ask when using strategies (tools). Chapter 2 explores vocabulary strategies, and other chapters describe strategies designed to help students prepare for

reading, read for deep understanding, evaluate and record information, and write.

The inclusion of Chapter 2, *Vocabulary* seems most appropriate given that teachers at an initial phase in their use of literacy strategies tend to begin with readily usable literacy games and activities that focus on vocabulary before delving into more substantial and thinking orientated strategies.
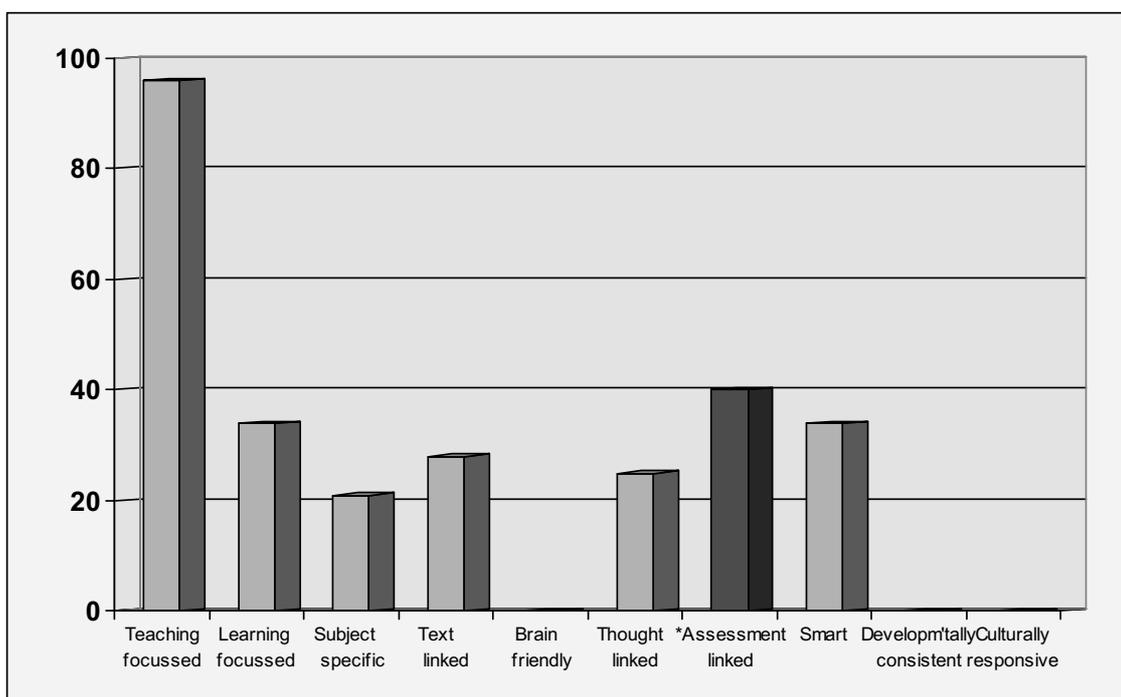

Figure 5. Distribution of tools included in the *Effective Literacy Strategies in Years 9-13: A guide for teachers*

* None of these strategies were specifically described as assessment-linked.

The distribution of strategies described in the ELS against the nine selection criteria outlined above is displayed in Figure 5. Firstly, it should be noted in respect to the teaching and learning focussed criterion that some strategies are potentially, both. Some strategies can be first used by teachers as teaching strategies, and then the responsibility for using them as learning tools transferred to students. But as described in the ELS most strategies aligned to either the teaching or the learning aspect of this criterion. Figure 5 also indicates there is more than twice the number of teaching focussed strategies as learning focussed strategies. Indeed, in Chapter 2,

Vocabulary and Chapter 6 *Learning to write and communicate through texts*, all the strategies are consistent with the teaching focussed criterion. For example, it is doubtful whether interactive cloze, clustering, clines, concept circles, post box, pair definitions, text completion activities, word games and picture dictation strategies described in these chapters could ever be used by students as independent learning strategies.

This distribution of teaching and learning focussed tools seems appropriate, first because teaching strategies are less demanding of classroom time and professional learning capacity, both of which impact

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...there is an urgent need for a thinking domain because it has the potential to break down the no-fly zones between subjects...

on the extent to which teachers might begin to modify their literacy practice. They also seem appropriate because teachers are more likely to risk using teaching strategies than learning strategies. The use of learning strategies involves a transfer of power, from deliberate acts of transmission teaching to purposeful acts of discursive learning, and that can be a significant challenge. However, the use of learning strategies is a pre-requisite for the nurturing of an independent literate thinker.

A second point to note from Figure 5 is that about a quarter (21%) of the strategies are consistent with the subject-specific criterion. This might be seen as a strength in the sense that most of the strategies have general application. But it also reflects the reality that in subject-focussed secondary schools some strategies are better suited to English, others to science and so on.

Thirdly, some 28% of the strategies are consistent with the text-linked criterion suggesting a clear link to subject-specific text types (explanations in science, narrative in English and so on).

Fourthly, there appears to be no brain-friendly justification for the selection of strategies and this is not surprising since neurological understandings about how the brain learns are slow to penetrate education. Perhaps this reflects the failure of teacher training providers to reflect recent understandings about the literate brain, the preference for socio-cultural models of teaching and learning and the construction of literacy in terms of situated relationships with other people. Although the mathematics might not work, there is a tendency to forget we are both 100% cultural and 100% biological; that language is a social construct mediated by an innately narrative brain.

Fifthly, 25% of the strategies were described in terms of their potential to evoke different types of thought, including metacognitive (reflective) thinking exemplified in strategies that describe how students might set a purpose for reading. Critical thinking (logical and analytic), different forms of taxonomic thinking aligned to Bloom (1956), Ruddell (2002) and others, and types of thinking evoked by sentence, paragraph and generic text structures are also described in the ELS.

But the exclusion of strategies that evoke caring thinking (affective and ethical) may be seen as a lost opportunity to assist students and society make social and moral progress. We are undoubtedly more literate than we were 200 years ago, but twenty-first century humans seem to be just as inhumane toward other humans as they were centuries ago. When one considers human wisdom, arguably at the heart of English that examines the human condition, one wonders whether there has been any progress and whether the inclusion of strategies that evoke caring thinking might help English teachers repress the innate savagery exemplified by Jack in *Lord of the Flies*.

Sixthly, although none of the strategies are specifically assessment-linked, 40% have potential use as assessment items. I believe teachers would welcome direction as to how strategies might be used as *ecologically valid* assessment items, and especially by teachers who want to engage in evidence-based planning and who want to test as they teach.

Seventh, the way the resource is structured into chapters on vocabulary, reading and writing makes it, perhaps, more difficult for teachers to see strategies as 'smart', a criterion that reflects the reciprocal nature of these processes. However, an analysis of the text revealed that 34% of the strategies are consistent with the smart criterion.

Eighth, and perhaps due to constraints of space, the strategies are not described in any developmentally-consistent fashion. Some stair casing of strategies that signalled a sequence through which students might pass on their journey toward becoming independent literate thinkers would have been welcomed. This finding links to a more profound concern that, unlike the Victorian curriculum in Australia, New Zealand is yet to articulate a thinking domain as part of an interdisciplinary curriculum strand. The designation of 'Thinking' as one of the *Key Competencies* is an encouraging start. However, there is an urgent need for a thinking domain because it has the potential to break down the no-fly zones between subjects, because it would describe a set of core literacy and thinking tools, perhaps selected using the nine selection criteria outlined in

this paper, and because it would provide a common nomenclature that students and teachers might use to objectify tools and types of thinking.

Finally none of the strategies in the ELS are cultural-responsive. None of the strategies reflect how different cultures think, read the world or prefer to learn, and in a multi-cultural country this is an extraordinary omission.

reflection

So does the ELS represent progress, to use a modern 19th century term pushed along by the work of Darwin, Huxley and Spencer? Has it overcome the inertia of custom that hinders progress? Or does it just reflect what has been known about literacy and thinking tools for many years? Will the strategies "…develop students as independent learners" (p.20) as the resource claims? Although many of the strategies have been selected on the basis of historical precedent, and although one might have wished for more learner-focussed, developmentally-consistent and culturally-responsive strategies, the ELS delivers to secondary school teachers a useful resource. But given that a key condition for learning is the opportunity for teachers and students to talk and problem-solve together, it might have been opportune to include oral language tools in the resource. This is especially so given the needs of our long tail of low achievers who need to first talk themselves to meaning before engaging with print.

Teachers (of English) have a moral and professional responsibility to nurture literate thinkers. This is imperative in an age when language is used as a weapon of mass deception. Knowledge of criteria that might be used to select literacy and thinking tools can equip teachers with theorised understandings that they can use to justify what they do. To articulate this responsibility teachers need resources that reflect these criteria and the rationale underpinning those criteria. The use of these resources should further spark the imagination of teachers who co-construct understanding with their students.

I believe that the use of literacy and thinking tools consistent with those criteria should be an integral component of English teaching and should be prized, not only because their use leads to meaningful destinations, but because the journey toward those destinations can be motivating for both teachers and learners.

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