

The New Zealand Curriculum

Update



In this issue:

02

What does literacy across the curriculum actually mean?

03

Implications for teachers

04

Critical literacy

Welcome to *The New Zealand Curriculum Update*

Curriculum Updates support school leaders and teachers as they work to design and review their school curriculum in line with the New Zealand Curriculum and with current knowledge and understandings about effective classroom teaching.

Curriculum Updates are published in the *Education Gazette* and are available online at:
http://nzcurriculum.tki.org.nz/curriculum_updates

This Update focuses on the languages, texts, and literacy practices of the different curriculum learning areas.



Literacy across the curriculum

Literacy is the ability to understand, respond to, and use those forms of language required by society and valued by individuals and communities.

The New Zealand Curriculum affirms that language is central to learning and identifies using language, symbols, and texts as one of the five key competencies.

The New Zealand Curriculum, The Literacy Learning Progressions, and the reading and writing standards position the language forms of reading and writing as “interactive tools”. Effective teaching throughout years 1–13 enables students to develop these tools and use them independently to build knowledge.

For literacy across the curriculum, students need to become familiar with and find out how to use the languages, texts, and literacy practices of each learning area.

For each area, students need specific help from their teachers as they learn:

- *the specialist vocabulary associated with that area;*
- *how to read and understand its texts;*
- *how to communicate knowledge and ideas in appropriate ways;*
- *how to listen and read critically, assessing the value of what they hear and read.*

The New Zealand Curriculum, page 16

Understanding and using the languages, texts, and literacy practices of a learning area can widen students' horizons as they learn to “think in different ways” or to “see their world from new perspectives” (*The New Zealand Curriculum, page 16*).

What does literacy across the curriculum actually mean?

Understanding the languages, texts, and literacy practices of a learning area means developing the capacity to:

- read and understand its texts
- construct texts appropriate to that area
- think about, discuss, interact with, and use these texts in subject-specific ways (adapted from Gee, 2008).

In addition, because many texts (printed or digital) are multimodal, learners need to be able to make meaning using print, visuals, sound, space, and movement and do so in ways consistent with the learning area in which the texts are used.

In science, for example, students must acquire vocabularies specific to chemistry, physics, or other specialisations. This involves recognising that, in the subject-specific context, some words or groups of words have different meanings to their everyday meanings, for example, the definition of “class” specific to biology.

As science students become familiar with ways of thinking, talking, and writing that differ from everyday thought, speech, and writing patterns, they recognise characteristic grammatical and stylistic features. For example, they encounter complex sentences qualifying the matters being discussed, and the use of the passive voice and third person to reinforce the objective stance of carefully reasoned and evidenced argument.

They also learn to understand and use the characteristic modes of science communication: the reports, published papers, and speeches through which scientists communicate the results of their research.

How do students learn the languages, texts, and literacy practices of the learning areas?

Learners need both “overt instruction” and repeated opportunities to immerse themselves in relevant activities – “situated practice” (New London Group, 1996).

While a few students may already be familiar with the languages, texts, and literacy practices of a learning area, most will need explicit teaching to achieve success.

Students who come from language backgrounds other than English are over-represented among the students who have not had enough support to develop the English literacy skills needed to meet curriculum goals at their year level.

However, these learners also bring with them the knowledge and experience of other cultures and languages. They can use this experience as a rich resource when exploring how languages, texts, and literacy practices are used in different contexts and how they can be seen from different perspectives. Opportunities to explore these different ways of making meaning should be incorporated into class work on the languages, texts, and literacy practices of a learning area.

Where appropriate, setting up a classroom environment that an experienced practitioner such as a scientist, carver, or literary critic would recognise gives students opportunities to learn and practise the ways in which members of a particular knowledge community think, believe, speak, read, and write (Gee, 2008).

> CASE STUDY

Learning the languages, texts, and literacy practices of mathematics

Two researchers conducted an investigation of how self-regulated learning contributed to developing proportional reasoning skills in mathematics with a class of year 7 students (Darr and Fisher, 2005). The researchers incorporated six sessions of journaling into the sequence of twelve teaching and learning sessions.

The students were given prompts before, and feedback after, each journaling session. For example, following work on fractions, the prompt asked for short explanations that would help to show a younger child how to find three-fifths of the squares on a five-by-five grid. The students were encouraged to use diagrams, drawings, and mathematical notation (when needed) to support their written explanations.

In such ways, the journaling provided opportunities for the students to “examine their thinking and reflect on their learning behaviours” (Darr and Fisher, 2005, page 45). These opportunities reflected the writing standards’ intent for students to “use their writing to think about, record, and communicate experiences, ideas, and information”.

The students then read several examples of how their peers had responded. They discussed how these explanations were organised, whether mathematical notation was used to support explanation, and whether mathematical language was used accurately. They finally reflected in their journals on the strengths and weaknesses of their own mathematical explanations.

The researchers comment that:

If students are not encouraged to report and explain their thinking, much of the knowledge they develop in mathematics classes is in danger of becoming “inert”.

Darr and Fisher, 2005, page 45



Implications for teachers

Traditionally, primary school teachers have focused on teaching reading and writing as generic skills, largely within the learning area of English, and secondary school teachers have focused mainly on teaching the content knowledge of their learning areas.

The challenge for teachers in years 1–13 is to teach the languages, texts, and literacy practices of particular learning areas.

Literacy across the curriculum can be achieved by giving learners both explicit instruction and opportunities for situated practice in each learning area.

To provide explicit instruction and situated practice, teachers need to develop their:

- professional knowledge about the languages, texts, and literacy practices of the learning areas in which they teach
- capability to determine whether there is a gap between learners' literacy skills and what they need to do to meet curriculum goals.

Literacy across the curriculum also requires teachers to understand the similarities and differences between the languages, texts, and literacy practices associated with different learning areas. Teachers need to understand when knowledge of the languages, texts, and practices of one learning area can be transferred to other learning areas and when it cannot. The case study below illustrates how a teacher investigated gaps in her students' literacy skills in the context of history and tailored a response to meet the needs that she identified.

The new writing hub on Literacy Online provides strong support for literacy across the curriculum. It includes guides for improving writing progress in years 1–3, 4–6, and 7–8 and teacher support materials for writing in science, social studies, and English. Curriculum Update 25 will discuss the hub in detail.

Guiding questions He pātai

- How could we increase our understanding of the languages, texts, and literacy practices of the learning area(s) we teach?
- How could we build our understanding of our students' strengths and needs in relation to the languages, texts, and literacy practices of specific learning areas?
- How could we provide our students with focused and effective explicit instruction and situated practice in this regard?
- How do we support students to, where appropriate, transfer their understanding of the languages, texts, and literacy practices of particular learning areas to other learning areas? How do we set expectations for this transfer?

> CASE STUDY

Learning the languages, texts, and literacy practices of history

Helen, a year 11 history teacher, found that her students' capacity to present their knowledge of history in writing did not match their oral contributions in class. She analysed writing behaviours in class and samples of recent written work to identify her students' writing needs. She also interviewed four students. The needs were for support in:

- recognising all aspects of the question and responding to each of them, possibly using them to help shape or structure the answer
- understanding general academic as well as subject-specific vocabulary, for example, "impact", "effect", or "outcome"
- (for some students) strengthening their planning skills before writing, for example, linking and sequencing ideas and building on notes

- using formal language
- knowing where one sentence ends and another begins when meaning is "run on" across several sentences
- proofreading and editing before completing the work.

Helen's analysis showed that she did not need to spend time teaching basic essay structure, which the students largely understood.

Once she knew which aspects of writing to target, she was able to incorporate these into class and small-group work to help the students communicate – and demonstrate their history knowledge – as effectively in their writing as in their oral comments.



> CASE STUDY

Learning the languages, texts, and literacy practices of English

Rachel found that her year 4 students needed to learn how to use evidence from a text, together with prior knowledge, to form, defend, evaluate, and challenge interpretations of the text. She set up a literature circle to help them build these skills.

Rachel explicitly taught the roles to be used in the literature circle. For example, she took on the questioner role to model how to ask open questions that could generate multiple interpretations. In the following weeks, Rachel supported students to ask such questions by giving them further instruction, modelling, and feedback.

Rachel also provided explicit instruction on how texts position readers (critical literacy). She used *The True Story of the Three Little Pigs* (Scieszka, 1996) to demonstrate how there is always more than one possible reading and that stories are never neutral but told from particular positions. The challenge for Rachel's students was to decide whether "A. Wolf" (as portrayed in his retelling of the story) really is the victim he makes himself out to be.

Rachel increasingly provided opportunities for her students to take responsibility for the literature circle roles. The circle read a series of texts, posted responses (from the perspective of their roles) on the class wiki, and engaged in extended dialogue about their different interpretations.

Students learned to use their prior knowledge and evidence from the text to make meaning. One applied his experiences of being in an earthquake to interpret the feelings of the main character in *Tomorrow Is a Great Word* (Brian, 1991). Another compared the failure of the main character's parents to return home after the earthquake with a similar story she had seen on the news. Another related the theme of fear to an earlier text the circle had analysed.

By the close of the project, students recognised the importance of not taking texts, or their peers' interpretations of them, at face value and of taking time to consider different perspectives:

You have to look everywhere [for evidence]. You have to ask people. You're asking people what their reason is and it's challenging for you cos you're trying to figure out which answer you think is the correct answer.

We think and discuss. We didn't used to discuss what the answer is, and with this ... we actually have to sound it out with people.

Critical literacy

Understanding the languages, texts, and literacy practices of each learning area is related to understanding how knowledge is constructed and used in each learning area. There is a clear link between subject-specific literacy and critical literacy. Critical literacy involves learners and information users in:

- questioning how knowledge is constructed and used
- investigating whether the writer has the authority to speak for a group or position or to tell particular stories
- considering how power relationships are established and whether a text includes or excludes particular readers or perspectives
- examining the ways in which texts can position a reader.

References

- Brian, J. (1991). *Tomorrow Is a Great Word*. Flinders Park: Era Publications.
- Darr, C. and Fisher, J. (2005). "Self-regulated Learning in Mathematics Classes". *Set: Research Information for Teachers*, no. 2, pp. 44–49.
- Gee, J. (2008). *Social Linguistics and Literacies: Ideology in Discourses*, 3rd ed. London: Routledge, Taylor and Francis Group.
- McDowall, S. (2010). *Literacy Teaching and Learning in e-Learning Contexts*. Wellington: Ministry of Education.
- New London Group (1996). "A Pedagogy of Multiliteracies: Designing Social Futures". *Harvard Educational Review*, vol. 66 no. 1, pp. 1–20.
- Scieszka, J. (1996). *The True Story of the Three Little Pigs*. New York: Penguin.

For a reference list including web links and suggested useful resources, see the online version of Update 23 at http://nzcurriculum.tki.org.nz/curriculum_updates

The New Zealand Curriculum

Update

> References and useful resources

References

Brian, J. (1991). *Tomorrow Is a Great Word*. Flinders Park: Era Publications.

Darr, C. and Fisher, J. (2005). "Self-regulated Learning in Mathematics Classes". *Set: Research Information for Teachers*, no. 2, pp. 44–49. Available at <http://www.nzcer.org.nz/nzcerpress/set/articles/self-regulated-learning-mathematics-classes>

Gee, J. (2008). *Social Linguistics and Literacies: Ideology in Discourses* 3rd ed. London: Routledge, Taylor and Francis Group.

McDowall, S. (2010). *Literacy Teaching and Learning in e-Learning Contexts*. Wellington: Ministry of Education. Available at http://www.educationcounts.govt.nz/_data/assets/word_doc/0011/77357/950_E-Literacy-77144.doc

New London Group (1996). "A Pedagogy of Multiliteracies: Designing Social Futures". *Harvard Educational Review*, vol. 66 no. 1, pp. 1–20.

Organisation for Economic Co-operation and Development (2005). "The Definition and Selection of Key Competencies (DeSeCo)". Available at <http://www.oecd.org/dataoecd/47/61/35070367.pdf>

Scieszka, J. (1996). *The True Story of the Three Little Pigs*. New York: Penguin.

Useful resources

Literacy Online

Under Secondary Literacy, Teacher needs, select Literacy in the learning areas.

<http://literacyonline.tki.org.nz>

NZCER Assessment Resource Banks

The English and science banks each include literacy-related content under the heading Support materials.

<http://arb.nzcer.org.nz>

School Journal Teacher Support Materials

Some support materials draw particular attention to text features and challenges that are related to learning areas and suggest follow-up activities consistent with practices in these learning areas, for example:

- "Crocodile Crèche" (*School Journal*, 2010, part 1 no. 3) – science
- "The Goldilocks Story" (*School Journal*, 2010, part 1 no. 4) – English
- "Where No Boat Could Live" (*School Journal*, 2010, part 3 no. 3) – technology and social sciences.

Visit <http://www.schooljournal.tki.org.nz>