

Deliberate design: An analysis of the 2010–11 School Journals and Teacher Support Materials (A summary report)

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Introduction

This report summarises the main findings of a research project on the use of the 2010–11 School Journals and their Teacher Support Materials carried out by the New Zealand Council for Educational Research (NZCER) for Learning Media Limited (LML) in 2011. The purposes of the research were to examine the ways in which these materials supported student and teacher learning, and to inform the future design of educative curriculum materials more generally. The research project had two components: an analysis of the 2010–11 School Journals and Teacher Support Materials; and case studies of use of these materials with Year 5 students in five classrooms.

Main findings

Principles guiding the development of the 2010–11 materials

LML have a set of principles they used to guide the development of the 2010–11 School Journals and Teacher Support Materials (along with other LML materials developed for schools). These principles are to:

- Support strategic instruction
- Provide rich texts and tasks
- Cater for the diversity of students in New Zealand schools
- Support Māori students to achieve success as Māori

- Enable alignment between text and student needs
- Build student capacities to meet the literacy demands of the curriculum
- Support reading and writing links.

We found these principles to be strongly aligned with the key considerations for developing educative curriculum materials identified in the research literature. We saw examples of these principles being picked up and applied by teachers in their classroom practice. Summarised below is a brief overview of our findings in relation to each LML principle.

Supporting strategic instruction

We considered the Teacher Support Materials to support strategic instruction by:

- Recognising that teachers mediate the interactions between students and the text. (The Teacher Support Materials are a vital second layer of mediation aimed to help teachers interpret and understand the text materials and their potential).
- providing multiple strands and ideas so teachers can select, adapt and apply to their context of specific student need
- ensuring that theory and research findings are translated into a usable form to guide specific decisions or teaching moves
- providing content knowledge (e.g., identification of text features as they relate to the National Standards) and pedagogical content knowledge (e.g., identifying potential text challenges)
- making clear the basis of pedagogical judgements so teachers understand the rationale for teaching moves
- providing a coherent and consistent form in the Teacher Support Materials to promote utility and familiarity.

In the case study schools we found that all teachers were able to select from, adapt and supplement the suggestions in the Teacher Support Materials according to their teaching objectives and to knowledge of their students, and that the nature of the Teacher Support Materials assisted them to do so. Teachers' capacity to adapt the materials for different purposes also related to the teachers' literacy content and pedagogical content knowledge, and knowledge of the students.

Providing rich texts and tasks

We found the School Journal texts to:

- cover a wide range of topics including those based on experiences common to many students as well as those that "open the window" to a wider world
- include at all levels rich use of language, made accessible to students through the provision of supports, such as glossaries, illustrations, diagrams and footnotes
- present different viewpoints on issues, allowing space for the reader's viewpoint
- enable repeated rereadings for different learning purposes.

Teachers considered the 2010–11 texts to be highly engaging, due to topics of relevance to students and sophisticated use of graphics, and rich enough to reward repeated rereading. This perception was confirmed by the students with whom we spoke.

A commitment to providing rich *tasks* is evident in the Teacher Support Materials through suggestions of how to utilise the “rich” characteristics of texts identified above. Examples include: suggestions relating to linking text topics and students’ experiences; use of vocabulary; possible links to different curriculum areas; and activities that involve eliciting student views and opinions.

At the case study schools we saw many examples of teachers focusing on the use of language in the School Journals as part of their lessons. The introduction of new vocabulary was also one of the most frequently identified aspects of reading and writing lessons students commented on in post-lesson discussions.

In most cases the lessons we observed involved a high level of guidance from the teacher. There were fewer opportunities for students to engage in large open-ended tasks or discussions in which they carried most of the interpretive load. This suggests teachers may need support in this area—something that could be picked up on in the development of future Teacher Support Materials.

Catering for the diversity of students in New Zealand schools

The School Journal texts cater for the diversity of students in New Zealand schools by:

- covering a range of values, lifestyles, activities and contexts, use of language, text types and graphics enabling connections to be made with a range of out-of-school experiences
- allowing students to take different learning pathways and to work from their strengths and interests through the availability of texts of different difficulty levels, modes and genres
- presenting different viewpoints on issues and making space for the reader’s viewpoint (especially in the nonfiction texts).

The Teacher Support Materials assist teachers to support student diversity by:

- providing a *range* of possible student responses to the potential challenges of each text and deliberate acts of teaching in reading and writing that can be used by teachers to support learning
- describing the support (linguistic and knowledge-related) that students from different backgrounds might need to access the ideas in the text.

One of the features of the School Journals that the case study teachers spoke most positively about was the availability of topics aligned with the interests and experiences of a diverse range of students. While we saw many instances in which teachers provided students with opportunities to contribute their knowledge and experiences, there were fewer opportunities for *extended* discussion in which these different contributions were compared and discussed in depth in relation

to the text. We saw few instances in which the group drew on the diversity of interpretations to generate new ideas or interpretations.

Supporting Māori students to achieve success as Māori

LML has in place processes to ensure that the School Journal texts focus not just on characters and contexts familiar to Māori students but also provide a space for representing who they are in the contexts of their whānau, hapū and iwi lived experiences. These processes include:

- the use of Māori writers, illustrators and photographers
- the use of Māori editors and advisers to check the representation of Māori in School Journal texts
- Māori editors responsible for editing texts targeting Māori students.

In our analysis of the 2010–11 School Journals we found many texts written by Māori authors writing from their lived experiences. Some of these texts focus on experiences which would be familiar to New Zealand students from a wide range of backgrounds. Others touch on experiences and world views that fewer students will be familiar with, providing an opportunity for these students to share their knowledge with others.

The Teacher Support Materials assist teachers to provide learning experiences likely to support Māori students to achieve success as Māori by providing teachers with suggestions on how they might:

- enable students to bring who they are into the classroom
- build connections with students and enable students to connect with each other
- engage in reciprocal learning (the concept of ako)
- share power so that students' right to self-determination is recognised.¹

The teachers considered it easy to find School Journal texts that were of interest to the Māori students in their classes and described how texts on topics familiar to these students could be used to empower these students by providing them with opportunities to take on a teacher role.

We also saw examples of teachers using ideas from the Teacher Support Materials and ideas of their own to provide students with opportunities to bring who they are into the classroom (in terms of language, culture and identity); of making personal connections with students through shared engagements with texts; and of drawing on the prior knowledge of students and providing them with opportunities to take on teaching as well as learning roles. We saw teachers sharing power with students in the classroom context. We did not see examples of teachers using texts to

¹ To frame our analysis of the Teacher Support Materials in relation to the principle of Māori achieving success as Māori, we draw on the work of Bishop et al. (2007). The findings from this work suggest that the engagement, learning and achievement of Māori students may be supported through a “culturally responsive pedagogy of relations.”

engage students in critical literacy,² and this is one area the Teacher Support Materials could focus on in the future.

Enabling alignment between text and student needs

The LML approach to text levelling is similar to what is being advocated in the more recent research literature³ in that it makes use of a levelling tool (that takes into account both sentence length and vocabulary difficulty) in conjunction with a text-levelling system (that takes into account factors such as curriculum levels, age appropriateness, complexity of ideas, structure and coherence, syntactic structure, vocabulary difficulty and text length).

All case study teachers took account of the difficulty levels assigned to the School Journals when selecting texts for their students, especially for guided reading purposes. We found that teachers used the levels assigned to texts in different ways, ranging from one teacher who only selected texts matched to the reading level of his students to another who used the same text for all her reading groups, adapting the scaffolding she provided as needed. Teachers talked of using the Teacher Support Materials to help them use texts with students spanning a range of reading abilities; for example, when using a text with the whole class as part of an inquiry topic.

Building student capacities to meet the literacy demands of the curriculum

We found examples of School Journal texts that model the discourses and practices, identities and identifications, and knowledge⁴ associated with different subject areas. The Teacher Support Materials provide assistance for building the capacities students need to meet the literacy demands of *The New Zealand Curriculum* (Ministry of Education, 2007) by:

- suggesting activities focusing on the discipline-related language and structures of texts
- suggesting activities that are consistent with the practices associated with different curriculum areas
- making explicit the values and beliefs associated with different curriculum areas
- indicating the knowledge needed to access the ideas in texts and provide teachers with ideas about how they might support students with this knowledge.

In the case study schools four of the five teachers selected School Journal texts on topics related to their current object of inquiry and with text features that afforded opportunities for teaching particular reading and/or writing objectives. Although teachers made clear links between the topics of these texts and the class topic of inquiry, we saw few examples in which teachers made

² Critical literacy involves questioning how knowledge is constructed and used. It considers how power relationships are established, questions of inclusion, exclusion and representation, and the ways in which texts can position a reader. Critical literacy involves questioning texts themselves rather than taking them at face value.

³ See, for example Graesser, McNamara and Kulikowich (2011).

⁴ See Moje (2008).

explicit to students the practices associated with those disciplinary areas, or the links between the language and structures of the text and the disciplinary area(s). This finding suggests teachers may need additional support with what this might look like in the classroom.

Strengthening the links between reading and writing

We considered the Teacher Support Materials assisted teachers to strengthen links between reading and writing by:

- signalling that both reading and writing are purposeful communicative activities
- signalling that a text can be utilised for both reading and writing instructional purposes
- identifying language features and structures of the text which might be used as models for writing
- calling on discourse knowledge and schema. Most of the connections are to the students' own cognition and frames of reference, important not only for aiding understanding and engagement but potentially for helping students as writers to think of how an audience might interact with their text.
- supporting metacognitive processes.

In the case study schools we found that teachers used the School Journal texts to make reading–writing links in a wide variety of ways. Some used the texts for reading lessons only but drew on the *Instructional focus—Writing* section of the Teacher Support Materials as part of their lessons. Some teachers used a text first for a reading lesson and then as a model for writing. Some provided the texts as an information source for students' writing. Others used the texts as a model of writing for a particular purpose, such as to instruct or to narrate. We also saw students using structures and language from the School Journal texts as models, even when not explicitly directed to do so by their teachers.

The teachers could have benefitted from further support on how text can be used as a model for writing, how to activate existing discourse schema of students when reading texts, to then apply in writing, and how to draw attention to similar cognitive processes employed in both reading and writing.

Teacher use of the materials

All teachers saw the School Journals as the core texts in their classroom programmes which they used for teaching reading and writing, and in a wide range of curriculum areas including English, science, technology, health, art and the social sciences. They also used the texts in a wide variety of ways, including guided reading, shared reading, independent reading, as models for writing, and as sources of content on particular topics. They used the School Journals when working with individuals, with groups and with the whole class. Many teachers reported using the same text for multiple purposes.

Teacher learning

Teachers found the School Journal texts and Teacher Support Materials supported their own learning. The learning most frequently commented on was in relation to understanding the literacy demands of different texts and in making overall teacher judgements (OTJs) on students' achievement in relation to the National Standards. Teachers considered the annotated text exemplars provided in each set of Teacher Support Materials to be particularly helpful. Teachers also considered that the Support Materials helped them identify the vocabulary their students would find challenging and the sort of questions that might be asked of students to check for understanding and build metacognition. Several teachers considered that they could transfer the "frame" from the support provided for one text to another, nonsupported piece.

There was consensus that the Teacher Support Materials were useful for less-experienced teachers—were "feeding a knowledge gap"—but that teachers had to be able to judge how to use the material, highlighting the importance of providing opportunities for professional learning and development in the use of the materials.

Student learning

There are complexities involved in attempts to link the design of educative curriculum materials with shifts in student achievement. One of these complexities relates to the "black boxes" which exist: first between policy guidelines and publishing companies' frameworks for developing educative curriculum materials; second, between these frameworks and the development of the materials; third, between the materials and acts of teaching; and fourth, between acts of teaching and what students learn. There can, therefore, be no direct relationship between the design of educative curriculum materials and shifts in student achievement.

Moreover, standardised tests designed as "broad sifting tools" (such as PAT: Reading and STAR) only assess a small range of the skills and knowledge educative curriculum materials such as the School Journals and Teacher Support Materials focus on, and are often not fine-grained enough to capture the shifts in learning that occur over time frames of less than 1 year.

What we can report is that the teachers in our study observed shifts in student learning outcomes during units using the 2010–11 School Journals and Teacher Support Materials. For many students these shifts were to do with the acquisition of new literacy skills or knowledge. With other students these shifts were to do with levels of engagement. The case study below provides examples of the types of learning observed by one of the project teachers.

Case study: Building the capacity to infer

Kate was working with a group of Year 5 students on the verge of being 'at standard' in their year group. The results on an asTTle reading test indicated that students needed more support: making inferences; consistently reading for meaning; responding using understandings and information;

and knowledge of vocabulary. Kate also noticed that many of her students' errors in the asTTle test related to misreading or failing to read information that was provided in diagrams or text boxes rather than the main body of the text.

Kate planned a unit of work focused on teaching the skills her students needed. She selected fiction and non-fiction texts from the 2010–2011 School Journals that (1) related to the current class inquiry topic: *New Zealand Culture and Heritage*; and (2) provided opportunities for teaching the reading skills her students needed. She modelled reading between the lines using 'think alouds', recoding her inferences and supporting evidence on t-charts, and providing students with guided opportunities to practice the skill themselves. She also provided overt instruction on how to read information presented in different formats, such as diagrams, tables, charts, diagrams, and illustrations.

Her planning and teaching demonstrated the way in which the Teacher Support Materials can be adapted and used in conjunction with other ideas. Her use of the text "Buttons" by Amanda Jackson (*School Journal*, 2010, part 2, no. 3), for example, was guided by the suggested deliberate acts of teaching identified in the Instructional focus—Reading section of the Teacher Support Materials. She also included the use of 'think alouds' to model the process of inferring and made use of a graphic organiser from the work of Alison Davis (2011) that required students to identify the words, illustrations, and prior knowledge that supported their inferences.

At the end of the unit of work Kate observed positive shifts in her students' capacity to infer. The students in the class also commented on what they had learnt, as illustrated in the examples below:

Finding the clues, figuring out what the author means but didn't write—I learnt how to find the information the author doesn't say directly.

[I learnt] how to find the clues in the text. The words or sentences that give you more information about the story or the subject.

Students also described how the actions of their teacher had helped them learn.

The hints that she gave us on her book ... How she did it first herself which gave us an idea of how we'd do it.

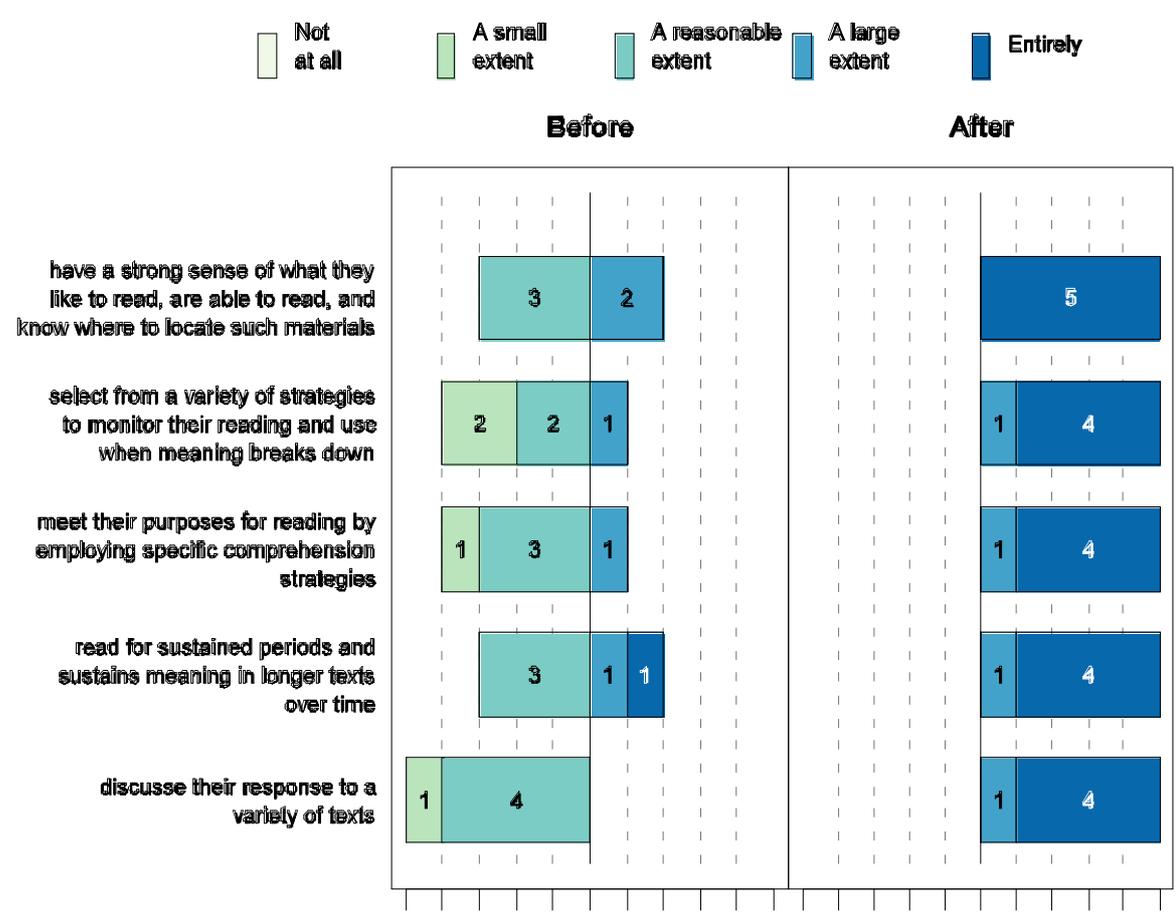
She made us write down the clues [prior knowledge, visuals]. She was thinking out loud so we kind of knew what the next bit was going to be about. When she questioned while we read...I was getting visuals in my head.

As part of the research project we asked teachers to fill in a Likert scale⁵ for each student in the study at the beginning and end of their unit of work. The graph below shows the pre- and post unit

⁵ Teachers were asked to rate students using a 5-point scale on a series of skills from *The Literacy Learning Progressions* (Ministry of Education, 2010).

ratings Kate gave each of her five students.⁶ The midpoint line in each graph falls between the no or low shift categories (“Not at all” and “A small extent”) and the three higher shift categories (“A reasonable extent”, “A large extent”, and “Entirely”). Overall, this shows the teacher perceived students to have made a number of shifts related to the teaching foci during the course of the unit.

Figure 1 **Shifts in reading for the five focus students**



Concluding comment

Overall the study showed that the 2010-2011 School Journals and Teacher Support Materials are well aligned with the principles for developing effective educative curriculum materials in the recent research literature. The case study findings indicate that the School Journals are a valued resource, are used by students and teachers in multiple ways, support programmes across the curriculum, and that their effective use is facilitated by the Teacher Support Materials.

⁶ We have presented these data graphically (despite the small sample size) so as to give a visual, indicative picture rather than a statistical picture of change.

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