Māori students
PISA2009

ACTING ON THE EVIDENCE
What might the PISA 2009 findings mean for school leaders and teachers of Māori students?

PISA2009 Reading
WORKBOOK

BY MAREE TELFORD and LYNETTE BRADNAM
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WHAT IS PISA?
The Programme for International Student Assessment (PISA) is an international standardised study that assesses and compares how well countries are preparing their 15-year-old students to meet real-life opportunities and challenges.

WHAT DOES PISA ASSESS?
PISA assesses three key areas of knowledge and skills – reading literacy, mathematical literacy and scientific literacy – and has a focus on one of these literacy areas each time PISA is administered. The focus of PISA 2009 was reading.

HOW OFTEN IS PISA ADMINISTERED?
PISA is administered every three years, beginning in 2000. Reading was the main focus in the first cycle.

WHO PARTICIPATES IN PISA?
Around 470,000 15-year-old students from 65 countries or economies, including the 34 Organisation for Economic Co-operation and Development (OECD) member countries, participated in PISA 2009. In New Zealand 4,643 students from 163 schools took part in the main study. Students and schools were randomly selected.

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This workbook provides some key findings about our Māori 15-year-olds who are in English learning settings (PISA was not administered in te reo Māori) based on the Programme for International Student Assessment 2009 (PISA 2009). To support school leaders and teachers of Māori students to ACT ON THE EVIDENCE, reflective questions are posed and Ka Hikitia and a number of resources that relate to the PISA findings are referenced.

Literacy knowledge and skills are necessary for learning in each area of *The New Zealand Curriculum* (Ministry of Education 2007), and for moving from ‘learning to read’ to ‘reading to learn’. Literacy demands for the 21st century are continuing to increase and are essential for effective and productive participation in everyday life, in Aotearoa New Zealand and the wider world.

The findings from PISA are relevant for both primary and secondary school Māori students because PISA is designed to measure the cumulative learning at age 15-years – often referred to as ‘the cumulative yield’.

Within an international context, this workbook examines how well our Māori students are prepared for the 21st century global world. The reading literacy skills of our Māori 15-year-olds on average are weaker than their non-Māori peers (see p.18). This workbook focuses on students’ reading habits in the print medium (reading enjoyment, time spent reading, reading materials they read), the types of literacy tasks that they do for school, and the motivational, scaffolding and structuring practices they experience in their English classes. It also provides information on students’ use and knowledge of effective learning strategies that are critical to their educational development, and the ways in which parents and whānau can influence their child’s reading skills. These findings are based on our Māori students’ responses to questions asked in the PISA 2009 student questionnaire.

Each of the six sections includes two key questions: *What do the PISA 2009 findings tell us about our Māori students?* and *What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?* The workbook has a focus on gender, given that boys’ reading literacy skills and knowledge are generally much weaker than girls, regardless of their ethnic background. It has been designed to stimulate discussion at the primary and secondary school level about how to:

- provide opportunities for our Māori students to tackle more complex and challenging texts and literacy tasks
- extend Māori students’ reading skills and knowledge (particularly weak readers) by using motivational and scaffolding practices
- empower Māori students with the knowledge of the most effective strategies that will enable, promote and advance their learning and educational development.


A key resource is *Tātaiako: Cultural Competencies for Teachers of Māori Students* (Ministry of Education 2011). Tātaiako is about knowing, respecting and working with Māori students and their whānau and iwi so their worldview, aspirations, and knowledge are an integral part of teaching and learning and of the culture of the school.

Tātaiako supports school leaders and teachers to know how to validate and affirm Māori and iwi culture, and how to apply that knowledge. Each competency describes related behaviours for school leaders and teachers, and what the results could look like for students and their whānau. They are closely linked to the Registered Teacher Criteria developed by the New Zealand Teachers Council.

www.teacherscouncil.govt.nz/rtc

The competency Tangata Whenuatanga, identifies the importance of providing contexts for learning where the language, identity and culture of Māori students and their whānau is affirmed. However, Tangata Whenuatanga does not sit in isolation from other competencies.

Likewise, Ka Hikitia stresses the importance of identity, language and culture – teachers knowing where their students come from and building on what students bring with them – and building productive partnerships among teachers, Māori students, whānau and iwi. Focus Area 3: Primary and Secondary Education, in *Ka Hikitia – Accelerating Success 2013-2017* (Ministry of Education 2013) specifies that education professionals must recognise and value the contribution of whānau, hapū and iwi, and build connections with them both inside and outside of school.

This workbook builds on *PISA 2009 Reading Workbook – Acting on the evidence: what might the PISA 2009 reading findings mean for our teachers and school leaders?* (Tellord 2013) that focuses on the overall findings for New Zealand 15-year-olds. Some of its key messages are reinforced here.

Can parents and whānau influence their 15-year-old’s reading skills?

The PISA findings indicate parents’ and whānau participation in early home-based literacy activities when their children are young, as well as parent’s and whānau reading attitudes and involvement in their 15-year-old’s academic and non-academic activities, are positively related to reading literacy.

What do the PISA 2009 findings tell us about our Māori students?

Almost all of our Māori students’ parents or whānau frequently read books to their 15-year-old during their first year of schooling. Those students had an advantage in reading, relative to their 15-year-old Māori peers who were read to less often, that is equivalent to well over one and a half years of schooling.

Typically, our Māori students were stronger readers if their parents or whānau role-modelled their enjoyment of reading by feeling happy if they received a book as a present, or enjoyed going to a library or bookshops.

Our 15-year-olds whose parents or whānau frequently discussed political or social issues with them were generally much better readers than their peers whose parents did this less often.

Māori students’ participation in home-based literacy-related activities in the early years

Involving children in home-based literacy activities while they are in early primary school is related to stronger reading literacy skills. This includes reading books (as mentioned above) and activities such as writing letters or words, parents and whānau frequently talking with their child about the things that they themselves do, telling stories, reading signs and labels aloud, and talking with them about what they themselves read.

Typically, at age 15, Māori students who had been involved in those early literacy activities had a relative advantage in reading that is equivalent to approximately one year of schooling.

Influence of Māori parents’ and whānau reading attitudes and behaviour

Our Māori students were generally stronger readers if their parents or whānau held positive attitudes towards reading.

At least 80% of our Māori 15-year-olds’ parents or whānau reported that they enjoyed going to bookshops or a library and felt happy if they received a book as a present.

Influence of Māori parents’ and whānau involvement with their 15-year-old in academic and non-academic activities

Two-thirds of Māori 15-year-olds’ parents or whānau reported that they discussed social and political issues with their 15-year-old. Involving children in complex conversations at home, such as discussing social and political issues, is positively associated with strong reading ability.
What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?

The findings suggest that even after 10 years of schooling Māori students with limited home literacy-related experiences have weaker reading skills. How are you encouraging and promoting parents and whānau involvement in their child’s learning?

Reflective questions for leaders of schools with Māori students

- Do teachers in our school know about Ka Hikitia – Accelerating Success 2013-2017 (Ministry of Education 2013)? How is Ka Hikitia used to set reading goals and targets in our school charter?
  
  www.minedu.govt.nz/theMinistry/PolicyandStrategy/KaHikitia.aspx

- What relationships do we currently have with parents and whānau of our Māori students that would enable us to support them with their child’s learning?

- Do we have an active and respectful relationship with our local marae and Māori leaders in the community to support our students and whānau with their literacy-related experiences? See, Identity, language and culture count, in Ka Hikitia – Accelerating Success 2013-2017, p. 17, and Focus Area 3, p. 41 (Ministry of Education 2013).
  
  www.minedu.govt.nz/theMinistry/PolicyandStrategy/KaHikitia.aspx

  Also, see Whanaungatanga, in Tataiako: Cultural Competencies for Teachers of Māori Students, pp. 8-9 (Ministry of Education 2011).
  

- How does our school show respect for our Māori students’ identity, language and culture, and how does this relate to success?

- How visible is Māori culture in our school?

- How do we go about building and sustaining a relationship with parents and whānau so that they feel valued and respected partners in their child’s learning? See for example, Te Mana Kōrero 3 – Relationships for Learning. This professional development package focuses on the importance of forging strong, effective and mutually respectful school and whānau/community relationships, and explores methods used by principals, teachers, students, parents, and other whānau that worked well to achieve these aims.
  
  http://tetereauraki.tki.org.nz/Te-Mana-Koerero

  Also, see Ruia – School-whānau partnerships for Māori students, a resource that supports principals and other school leaders to improve outcomes for Māori students by working in educationally powerful partnerships with whānau.
  
  http://temangoroa.tki.org.nz/Stories/Ruia-partnerships

- What processes do we currently have in place that assist whānau to support their child’s reading? How well is that working, and what could we do differently?

- How are we building on and embedding our understandings and practices into our school so that they become business as usual? See for example, Promoting Success for Māori Students: Schools’ Progress (Education Review Office 2010).
  
  www.minedu.govt.nz/theMinistry/PolicyandStrategy/KaHikitia.aspx
Reflective questions for teachers of Māori students

- Māori students are diverse. Some are highly engaged in their identity, language and culture, and others are less so. How well do I know each Māori student in my class? Do I know what this child is interested in? How I can support that? Are my expectations high enough for this child regardless of their background, home life, appearance and attitude? See for example, the five guiding principles of Ka Hikitia – Accelerating Success 2013-2017, pp. 14-18 (Ministry of Education 2013). www.minedu.govt.nz/theMinistry/PolicyandStrategy/KaHikitia.aspx

- What is the whānau structure that our Māori students live in? What tikanga Māori practices are practised at home? Are they exposed to te reo Māori outside of school life? What connections do they have to marae? How do I affirm Māori students as Māori? How do I provide contexts for learning where their unique identity, language and culture is affirmed? See for example, Tangata Whenuatanga, in Tātaiako: Cultural Competencies for Teachers of Māori Students, pp. 12-13 (Ministry of Education 2011). www.minedu.govt.nz/theministry/educationinitiatives/taatiako.aspx

- Also, see Te Kauhau Phase 3 Case Studies Report - Henderson Intermediate (Gorinski 2009). This case study provides an example of ways ako-based positive relationship development enhances the presence, engagement and achievement of students, whānau and teachers. http://lemangoroa.tki.org.nz/Stories/TK3-case-studies-report

- How well do I recognise, access and value the expertise that whānau have? If I am not sure what expertise whānau can bring, how do I go about finding out? What relationships do I have with my Māori students’ whānau to be able to find out? See, Productive partnership, in Ka Hikitia – Accelerating Success 2013-2017, p. 18 (Ministry of Education 2013). www.minedu.govt.nz/theMinistry/PolicyandStrategy/KaHikitia.aspx

- Also, see Wānanga, in Tātaiako: Cultural Competencies for Teachers of Māori Students, pp. 6-7 (Ministry of Education 2011). www.teacherscouncil.govt.nz/required/Tataiako.pdf

- How well do we support whānau to be well informed about their child’s learning? How do we provide space and opportunities for them to ask questions about learning?
How are we supporting whānau during their child’s early years to make reading fun and relevant at home? How are we supporting te reo Māori in their reading? Are we providing a variety of resources with a Māori context, fostering whānau awareness of how to develop their child’s literacy skills, and involving parents and whānau in decision making?

Do parents of our Māori students know that talking with their young children and reading to them from the time that they are babies will help their child’s language and literacy development, and that some of the everyday things they do, such as reading signs at the supermarket, are opportunities for language development?

Do our parents know about Early Reading Together®? This programme is designed to support parents with their children’s language and literacy development at home.

[www.readingtogether.net.nz/EarlyReadingTogether.aspx](http://www.readingtogether.net.nz/EarlyReadingTogether.aspx)
What do the PISA 2009 findings tell us about our Māori students?

Just over one half of our Māori 15-year-olds reported they read for enjoyment every day. Typically the more time they spent reading for enjoyment the better their reading score. There was a very large gap in the reading performance between our Māori 15-year-olds who enjoyed reading the most, and those who enjoyed reading the least. The reading gap is equivalent to approximately three years of schooling.

Our Māori girls were twice as likely as our boys to hold positive views about reading.

Māori students’ reading on a daily basis

A quarter of our Māori 15-year-olds spent more than 30 minutes a day reading for enjoyment. The 11% who read for one hour or more every day were relatively strong readers. Typically the 45% of Māori students who didn’t read daily for enjoyment were weak readers.

While two-thirds of our Māori girls read daily, well under half of their male counterparts were daily readers.

Our 15-year-olds were less likely to read daily for enjoyment than their non-Māori peers and the OECD average.

Māori students’ reading enjoyment

Overall students who held positive views about reading were strong readers.

Girls were much more likely than boys to feel happy if they received a book as a present, to enjoy going to the bookshop or library, express their opinions and talk with other people about the books they read, exchange books they read, and to consider reading as one of their favourite hobbies.

In contrast, our Māori boys were more likely than girls to hold negative views towards reading. Around two-thirds of our boys said they read only if they had to or read only to get the information they need. Also, 44% found it hard to finish reading books, one third considered reading a waste of time, and one third said that they cannot sit still for more than a few minutes to read.

Māori 15-year-olds were much less likely to feel positive about reading than the OECD average and their non-Māori peers. This was the case for both boys and girls.
Whakataukī
Rukuhia te mātauranga ki tōna hōhonutanga me tōna whānuitanga

Pursue knowledge to its greatest depths and its broadest horizons

The whakataukī is a reflection of the emphasis Māori place on the intergenerational transmission of knowledge, ensuring the pātaka (store house) is both nourished and replenished.

What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?
A strong reader usually enjoys reading activities. How are you encouraging our Māori students, particularly boys, to enjoy reading and engage in reading activities?

Reflective questions for leaders of schools with Māori students

- Do we have sufficient literacy-related resources that support the identity, language and culture of our Māori students?
- Is there a review process in place that is used to support building a strong set of resources?
- Do we know what Māori students, especially boys, and whānau think about our literacy resources?
- Do we have the resources to support students who have transitioned to our school from a Māori medium education setting?

Reflective questions for teachers of Māori students

- Do I know which of our Māori students in our classes enjoy reading? Do I know why some of my Māori students like reading and why some do not? Do I know how my Māori students experience reading? Do I know what they are reading? Do I know what our Māori boys like to read and what would motivate them to read more often? See for example, Cultural Self-Review: Providing Culturally Effective, Inclusive Education for Māori Students (Bevan-Brown 2003). This report provides a structure and process that teachers from early childhood centres through to secondary schools can use to explore how well they cater for Māori students, including those with special needs.
- How much time do our Māori students want to read at any given time: a whole page, a few paragraphs, or just the by-lines? What would motivate them to enjoy reading more?
- How much time do our Māori students spend on social networks and texting? Do I value these electronic resources as a reading resource?
- How do we use and promote reading materials to ensure that reading is a positive experience?
- Do we allow students to respond to what they are reading so that we can gauge their interest?
- How do I build my knowledge to better engage those who are beginning to show signs of not enjoying reading? Engaging boys in rich experiences was one of the key strengths found across the case study schools in The Boys’ Education: Good Practice in Secondary Schools (Education Review Office 2008).

What do our 15-year-old Māori students read for enjoyment?

PISA evidence indicates that reading a range of reading materials, including fiction, is positively related to reading literacy.

What do the PISA 2009 findings tell us about our Māori students?

Typically our Māori 15-year-olds who regularly read fiction or non-fiction books (ie, at least several times a month) were significantly stronger readers than their peers who read these materials less often.

Māori girls were twice as likely as boys to read fiction daily.

Our Māori 15-year-olds read newspapers and magazines more often than fiction books, non-fiction books and comics. Well over half of them read newspapers and magazines on a regular basis. Close to a third read fiction books, a fifth read non-fiction books, and around ten percent read comics regularly.

Māori boys and girls were equally likely to read newspapers or magazines regularly.

Māori students reading fiction books

Both Māori boys and girls who regularly read fiction for enjoyment were generally substantially better readers than their counterparts who did not.

Our Māori students were much less likely than their non-Māori peers and the OECD average to read fiction regularly.

Māori students reading non-fiction books

Māori boys and girls who read this genre regularly were typically stronger readers than those who read them less often.

Proportionally more girls (26%) read non-fiction books on a regular basis than boys (17%). This was not the case for their non-Māori peers; non-Māori boys and girls were equally likely to read them.

Overall our students read non-fiction books about as often as their non-Māori peers and the OECD average.

Māori students reading newspapers

Māori boys and girls with weak or strong reading skills were equally likely to regularly read newspapers.

Our boys and girls read newspapers to a similar extent.

A slightly larger proportion of Māori students read newspapers than their non-Māori peers and the OECD average.

Maori students reading magazines

While more Māori girls than boys regularly read magazines, overall the two-thirds of girls who were regular readers had weaker reading literacy skills than girls who read them less often.

Overall, Māori boys were equally likely to read magazines whether they had weaker or stronger reading skills.

Māori students read magazines to about the same extent as their non-Māori peers.

Maori students reading comics

While overall 9% of our Māori students read comics regularly, there was no statistically significant difference between their reading scores and those who did not read comics regularly.

Māori students read comics to about the same extent as their non-Māori peers.
Whakataukī

E kore au e ngaro, he kākano i ruia mai i Rangiātea

*I will never be lost, for I am a seed sown in Rangiātea*

This whakataukī reminds us of the opportunity we have in schools to make new beginnings, to plant, to nurture, to cherish, to realise potential, to grow and enhance that which is.

What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?

A strong reader enjoys reading and reads widely, particularly fiction. How are you encouraging our Māori students to enjoy reading a range of reading materials?

Reflective questions for leaders of schools with Māori students

- How are we supporting whānau to encourage their children to extend the range of their reading materials?

- Do we support whānau to access a variety of reading materials at home? The Reading Together® programme works with local librarians to support whānau use of libraries.
  
  [www.readingtogether.net.nz/ReadingTogether.aspx](http://www.readingtogether.net.nz/ReadingTogether.aspx)

  Also, see *School leadership in a school-home partnership: Reading Together at St Joseph’s School Otahuhu* (Tuck, Horgan, Franich & Wards 2007). This report details one school’s implementation of the Reading Together® programme.


- How do we ensure we have a wide range of reading material in all curriculum areas, particularly reading material that will engage Māori boys?

Reflective questions for teachers of Māori students

- How can I encourage and support Māori students to read a variety of text types?

- Do we know the range of reading materials Māori students have access to outside of our classrooms? How can we use that knowledge to increase that range?

- Do we provide texts that have a diverse range of positive Māori contexts for children to read and also grow our own understandings of those contexts?

- Do we provide a variety of platforms to read from, for example, wikis, blogs, advertisements, newspapers, magazines, chapter books or comics?

- Are we exposing our learners to fiction written by Māori authors, lyricists, songwriters, such as Witi Ihimaera, Patricia Grace, Whirimako Black, Maisey Rika and Warren Maxwell?
What types of reading literacy tasks did our 15-year-old Māori students report that they do in their English classes?

PISA findings indicate that tasks associated with interpreting literary texts and non-continuous texts are positively related to reading literacy.

What do the PISA 2009 findings tell us about our Māori students?

Māori students with strong reading skills were more likely to undertake tasks that involved interpreting literary texts and to have used non-continuous texts.

In contrast, Māori students with weaker skills were more likely to be exposed to less challenging tasks, such as functional texts (reading newspaper reports, magazine articles, instructions or manuals about how to make or do something) and literature course activities (learning about the life of a writer or memorising a text by heart).

Māori students’ engagement with tasks associated with interpreting literary texts

Māori students who reported they had regularly engaged in the following literary tasks generally had stronger reading skills than those who did them less often:

- explaining the cause of events in a text
- explaining the way characters behave in a text
- explaining the purpose of a text
- reading fiction (e.g., novels, short stories).

Māori boys were much less likely than girls to have undertaken the tasks listed above. However, boys who engaged in these tasks the most, typically had stronger reading skills than those who engaged in them the least. This was not the case for girls – there was no statistically significant difference in their reading scores.

The gap in average reading performance between boys who had engaged in these tasks the most, and those the least, is equivalent to well over one year of schooling.

While Māori students used the more complex tasks of interpreting literary texts to a similar extent as the OECD average, they were less likely than their non-Māori peers to do so.

Māori students’ engagement with tasks associated with non-continuous texts

Māori students, whether they were boys or girls, who had regularly engaged in the following non-continuous tasks, were likely to have stronger reading skills than those who engaged in them less often:

- finding information from a graph, diagram or table
- using texts that include tables or graph
- using texts that include diagrams or maps
- describing the way the information in a table or graph is organised.

Our Māori students who use non-continuous tasks the most were typically those with stronger reading skills. This was the case for both girls and boys. Typically Māori boys were much less likely than our girls to use non-continuous tasks.

The performance gap between Māori boys who engaged in these tasks the most, and those who did so the least, is equivalent to more than one year of schooling.

Māori 15-year-old students used texts containing non-continuous materials to about the same extent as their non-Māori peers.
Whakataukī
Ehara taku toa i te toa takitahi, engari taku toa he toa takitini

My achievement is not that of an individual, but is that of many
(We can achieve much together)

What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?

Strong readers are likely to have used tasks that are associated with interpreting literary texts and non-continuous texts. How are you extending our Māori students’ reading skills and knowledge (particularly weak readers) by scaffolding them to tackle more complex and challenging texts and literacy tasks?

Reflective questions for leaders of schools with Māori students

- Do we need to support professional learning development that will build teaching knowledge about the scaffolding required to support weaker Māori students (in particular Māori boys) to experience success with more challenging and complex reading tasks?

- Does our leadership team support teachers by understanding what is required and encouraging them to make those changes in order to achieve improved outcomes? See for example, Research into the implementation of the Secondary Literacy Project (SLP) in Schools (McNaughton, Wilson, Jesson & Lai 2013).

www.educationcounts.govt.nz/publications/series/Secondary_Literacy/Research_into_the_Implementation_of_SLP

Reflective questions for teachers of Māori students

- Am I open to exploring what is possible (high expectations)? Students who are expected to achieve and have high realistic expectations of themselves are more likely to succeed. See for example, Māori potential approach p. 15, and Focus Area 3, pp. 37-38, in Ka Hikitia – Accelerating Success 2013-2017 (Ministry of Education 2013).

www.minedu.govt.nz/theMinistry/PolicyandStrategy/KaHikitia.aspx

- Do I need to build my teaching knowledge about the scaffolding required to support weaker Māori students (in particular Māori boys) to experience success with more challenging and complex reading tasks? See for example, a range of resources and reports for supporting our Māori learners.


- How well am I using peer tutoring/grouping as a lever to support struggling readers?

- How well am I using The Literacy Learning Progressions – meeting the reading and writing demands of the New Zealand Curriculum (Ministry of Education 2010) to support students’ reading? The Literacy Learning Progressions is a professional tool for teachers. It describes and illustrates the three main aspects of the knowledge, skills, and attitudes that students need to draw on to meet the reading and writing demands of the curriculum: learn the code of written language, learn to make meaning of texts, and the need to think critically.

www.literacyprogressions.tki.org.nz

- How well am I using The New Zealand Curriculum (Ministry of Education 2007) key competencies, p. 12? See for example, Rosemary Hipkins (Chief Researcher at New Zealand Council of Education Research) talk about how the key competencies can change both the learning and the subject content. She emphasises the importance of understanding how meaning is made in a subject, what the literacies and conventions are, and how students should be included as they make the learning-to-learn.

www.edtalks.org/video/deepening-understandings-key-competencies#.UcQoYaUmzww
What do the PISA 2009 findings tell us about our Māori students?

Māori students with strong reading skills were more likely to have been exposed to the range of structuring and scaffolding practices and motivational practices asked about in PISA.

Students who were the most exposed to structuring and scaffolding practices in their English classes, typically had a relative advantage in reading literacy skills and knowledge that is equivalent to at least one and half years of schooling. The difference in reading performance on motivational practices for our Māori students is equivalent to one year.

Do teachers use motivational practices and structuring and scaffolding practices in English classes?

Our Māori students who are in classes where teachers use these practices are likely to have strong reading skills.

Māori students' exposure to scaffolding and structuring practices

- telling students in advance how their work is going to be assessed
- posing questions that motivate students to participate actively
- giving students a chance to ask questions about the reading assignment
- asking whether every student has understood how to complete the reading assignment
- checking that students are concentrating while working on a reading assignment
- discussing students' work after they have finished a reading assignment (formative feedback on an assessment)
- discussing students' work after they have finished a reading assignment (formative feedback on an assessment)
- marking students' work.

Overall our Māori girls were more likely than boys to have been exposed to the scaffolding and structuring practices that were asked in PISA.

Māori students were less likely to be exposed to these practices than their non-Māori peers, but they were exposed to them more often than the OECD average.

Māori students' exposure to motivational practices

Māori students in English classes where their teachers used the following motivational practices examined in PISA were likely to have strong reading literacy skills:

- asking questions that challenge students to get a better understanding of a text
- asking students to explain the meaning of a text
- encouraging students to express their opinion about a text
- giving students enough time to think about their answers
- showing students how the information builds on what students already know.

Our boys and girls were equally likely to be in classes where teachers use these practices in most or all of their English classes.

Although Māori students were less likely to be exposed to these practices than their non-Māori peers, they were exposed to them about as often as the OECD average.
What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?

Māori students who are exposed to scaffolding and motivational strategies are more likely to have stronger reading skills. How are we motivating and scaffolding our Māori students on to more complex texts?

Reflective questions for leaders of schools with Māori students


- How do I ensure that I check that those most in need of support (especially my Māori boys) clearly understand the purpose of the task set and what is required of them?

- How do we share and build on our collective knowledge of this for our Māori students?

- When considering the quality teaching factors noted in the above BES report, are we aware of Te Kotahitanga?

- How do our school leaders learning through Māori ways of doing and thinking.

- What process(es) do we have in place to support teachers to reflect, build and share their expertise around these key practices?

- How do we support teachers to ensure all Māori students are motivated and scaffolded appropriately to learn?

- What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?

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- How do we check that we are building cultural responsiveness into our teaching practice so that our students’ learning is affirming, meaningful and relevant? How do we incorporate Māori culture, including the local Māori culture and demonstrate integrity, sincerity and respect towards Māori beliefs, language and culture?

- Are we aware of Te Kotahitanga? Information about this professional development tool is available at http://tekotahitanga.tki.org.nz/about

- Have we used He Kākano to become relational and pedagogical leaders with the capability to build educational success for and with Māori students? The Kākano Leadership Professional Development Process – Flow Diagram provides a practical example of school leaders learning through doing and thinking. http://temangoroa.tki.org.nz/Stories/He-Kakano-wananga

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- How do we share and build on our collective knowledge of this for our Māori students?

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- What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?
What do the PISA 2009 findings tell us about our Māori students?

Māori students who were the most aware of effective learning summarising strategies, understanding and remembering strategies and regularly used control learning strategies as a learning approach were relatively strong readers.

Overall, the relative reading advantage for these students is equivalent to at least two years of schooling.

Māori students’ knowledge of summarising strategies (meta-cognition skills)

Māori students with stronger reading literacy skills were more likely to know that the following two summarising strategies examined in PISA are effective for learning:

- carefully checking whether the most important facts in the text are represented in the summary
- reading through the text underlining the most important sentences, and then writing them down in your own words.

Less than half of our Māori 15-year-olds knew about these two effective summarising strategies. Overall, those who did had a relative advantage in reading that is equivalent to more than two years of schooling.

Overall our Māori boys were much less aware than our girls of these effective summarising strategies.

When compared with their non-Māori peers and the OECD average, our students were much less likely to know about this effective learning approach.

Māori students’ knowledge of understanding and remembering strategies (meta-cognition skills)

The following understanding and remembering strategies examined in PISA were more likely to be used by Māori students with strong reading skills:

- underlining the most important parts of the text
- summarising the text in your own words
- after reading the text, discussing its contents with other people.

On average Māori students who knew these strategies were effective learning approaches had a relative reading advantage that is equivalent to at least two years of schooling.

Well over half of our Māori 15-year-old students did not know that these strategies are very useful for learning.

Overall Māori students were less likely than their non-Māori peers and the OECD average to know that these strategies are effective learning approaches.

Māori students’ use of control strategies (self-directed or self-regulated learning)

Stronger readers were more likely to use the four control strategies examined in PISA:

- starting by figuring out exactly what I need to learn
- checking if I understand what I have read
- figuring out which concepts I do not really understand
- if I don’t understand something I look for additional information to clarify this.

Although New Zealand’s non-Māori students were substantially more likely to use these strategies than the OECD average, this was not the case for Māori students: they used them about as often as the OECD average.
What might the PISA 2009 findings mean for our school leaders and teachers of Māori students?

Our students who know about effective strategies for summarising information, understanding and remembering complex information, and use control strategies are likely to be relatively strong readers. Do we know if you are empowering our Māori students with the knowledge of the most effective strategies that will enable and promote their learning?

Reflective questions for leaders of schools with Māori students

- How can we support teachers to build their pedagogical content knowledge for knowing the best ways to support Māori students, especially boys, to lead their learning? See for example, *The Boys’ Education: Good Practice in Secondary Schools* (Education Review Office 2008). This report identifies key strengths and challenges of developing strategies that successfully support boys’ education.

Reflective questions for teachers of Māori students

- Do we know the types of learning strategies our Māori boys use to successfully undertake classroom, school-wide and home-based tasks? Do I know those used by these boys in my class? *The Boys’ Education: Good Practice in Secondary Schools* (Education Review Office 2008) also includes a discussion on the importance of teachers knowing students well and personalising programmes and differentiating lessons accordingly.

- How well am I using *The New Zealand Curriculum* (Ministry of Education 2007) Thinking and Managing Self key competencies p. 12? Thinking is about using creative, critical meta-cognitive processes and Managing Self is associated with self-motivation, a can-do attitude, with students seeing themselves as capable students.
# Types of tasks students can do at each PISA reading proficiency level

<table>
<thead>
<tr>
<th>Level</th>
<th>Lower score limit</th>
<th>Percentage of students able to perform tasks at this level or above</th>
<th>Characteristics of tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>708</td>
<td>1% of students across the OECD can perform tasks at least at Level 5 on the reading scale 3% of non-Māori students 3% of Māori students</td>
<td>Tasks at this level typically require the reader to make multiple inferences, comparisons and contrasts that are both detailed and precise. They require demonstration of a full and detailed understanding of one or more texts and may involve integrating information from more than one text. Tasks may require the reader to deal with unfamiliar ideas, in the presence of prominent competing information, and to generate abstract categories for interpretations. Reflect and evaluate tasks may require the reader to hypothesise about or critically evaluate a complex text on an unfamiliar topic, taking into account multiple criteria or perspectives, and applying sophisticated understandings from beyond the text. A salient condition for access and retrieve tasks at this level is precision of analysis and fine attention to detail that is inconspicuous in the texts.</td>
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<tr>
<td>5</td>
<td>626</td>
<td>9% of students across the OECD can perform tasks at least at Level 5 on the reading scale 18% of non-Māori students 7% of Māori students</td>
<td>Tasks at this level that involve retrieving information require the reader to locate and organise several pieces of deeply embedded information, inferring which information in the text is relevant. Reflective tasks require critical evaluation or hypothesis, drawing on specialised knowledge. Both interpretative and reflective tasks require a full and detailed understanding of a text whose content or form is unfamiliar. For all aspects of reading, tasks at this level typically involve dealing with concepts that are contrary to expectations.</td>
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<tr>
<td>4</td>
<td>553</td>
<td>28% of students across the OECD can perform tasks at least at Level 4 on the reading scale 45% of non-Māori students 23% of Māori students</td>
<td>Tasks at this level that involve retrieving information require the reader to locate and organise several pieces of embedded information. Some tasks at this level require interpreting the meaning of nuances of language in a section of text by taking into account the text as a whole. Other interpretative tasks require understanding and applying categories in an unfamiliar context. Reflective tasks at this level require readers to use formal or public knowledge to hypothesise about or critically evaluag a test. Readers must demonstrate an accurate understanding of long or complex texts whose content or form may be unfamiliar.</td>
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<tr>
<td>3</td>
<td>480</td>
<td>57% of students across the OECD can perform tasks at least at Level 3 on the reading scale 71% of non-Māori students 48% of Māori students</td>
<td>Tasks at this level require the reader to locate, and in some cases recognise the relationship between, several pieces of information that must meet multiple conditions. Interpretative tasks at this level require the reader to integrate several parts of a text in order to identify a main idea, understand a relationship or construe the meaning of a word or phrase. They need to take into account many features in comparing, contrasting or categorising. Often the required information is not prominent or there is much competing information; or there are other text obstacles, such as ideas that are contrary to expectation or negatively worded. Reflective tasks at this level may require connections, comparisons, and explanations, or they may require the reader to evaluate a feature of the text. Some reflective tasks require readers to demonstrate a fine understanding of the text in relation to familiar, everyday knowledge. Other tasks do not require detailed text comprehension but require the reader to draw on less common knowledge.</td>
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<td>2</td>
<td>407</td>
<td>81% of students across the OECD can perform tasks at least at Level 2 on the reading scale 88% of non-Māori students 76% of Māori students</td>
<td>Some tasks at this level require the reader to locate one or more pieces of information, which may need to be inferred and may need to meet several conditions. Others require recognising the main idea in a text, understanding relationships, or construing meaning within a limited part of the text when the information is not prominent and the reader must make low level inferences. Tasks at this level may involve comparisons or contrasts based on a single feature in the test. Typical reflective tasks at this level require readers to make a comparison or several connections between the text and outside knowledge, by drawing on personal experience and attitudes.</td>
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<tr>
<td>1a</td>
<td>335</td>
<td>94% of students across the OECD can perform tasks at least at Level 1 97% of non-Māori students 94% of Māori students</td>
<td>Tasks at this level require the reader to locate one or more independent pieces of explicitly stated information; to recognise the main theme or author’s purpose in a text about a familiar topic, or to make a simple connection between the text and common, everyday knowledge. Typically the required information in the text is prominent and there is little, if any, competing information. The reader is explicitly directed to consider relevant factors in the task and in the text.</td>
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<tr>
<td>1b</td>
<td>262</td>
<td>99% of students across the OECD can perform tasks at least at Level 0 99% of non-Māori students 99% of Māori students</td>
<td>Tasks at this level require the reader to locate a single piece of explicitly stated information in a prominent position in a short, syntactically simple text with a familiar context and text type, such as a narrative or a simple list. The text typically provides support to the reader, such as repetition of information, pictures or familiar symbols. There is minimal competing information. In tasks requiring interpretation the reader may need to make simple connections between adjacent pieces of information.</td>
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## List of countries and economies participating in PISA 2009

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<thead>
<tr>
<th>Country</th>
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