
Te tuangi (the clam)

A metaphor for teaching, learning and the key competencies

Mary Simpson and Tina Williams

This article explores the shift from “essential skills” to “key competencies” in the school curriculum. Drawing on information gathered from teacher interviews and observations at a New Zealand primary school, this article suggests that culture and context strongly shape and influence the interpretation of key competencies. The authors develop a metaphor—te tuangi—to theorise the relationship between a learner (akonga) and a teacher (kaiako) in a cultural and social context.

This article reports on one aspect of the Teaching and Learning Research Initiative (TLRI) project *Key Learning Competencies across Place and Time: Kimihia te ara tōtika, hei oranga mō tō ao*. The project was designed to explore research questions relating to an alignment between the curriculum strands of *Te Whāriki* (the national early childhood curriculum: Ministry of Education, 1996) and the five key competencies in a new school curriculum (*The New Zealand Curriculum*: Ministry of Education, 2007, p. 42), with a focus on the early years. This part of the project, based in Rotorua, aimed to investigate pedagogy designed to develop five learning competencies over time at one New Zealand primary school.

Rotorua Primary School is a state co-educational primary school located in the North Island. The school caters for students from Year 0 to Year 8 (5 to 13 years old). The school is quite distinctive in that it has seven Māori-medium and five English-medium classrooms operating. In addition, 97 percent of the student population identify as Māori.

The Phase 1 data were gathered from 11 interviews with teachers and senior management. In the second phase of the research, the researchers spent 94 hours observing in classrooms (Years 0–1 English medium, Years 2–3 English medium, Years 4–5 English medium, Years 0–1 Māori medium, Years 2–3 Māori medium, Years 4–5 Māori medium and Years 5–6 Māori medium). These

observations provided the basis for further discussions with teachers about the key competencies and their place in the classroom.

A focus on the social context: Being willing to participate

The move from essential skills to key competencies in *The New Zealand Curriculum* (Ministry of Education, 2007) offered new possibilities for thinking about teaching and learning. The competency framework is holistic and encourages teachers to consider the intentions, motivations, values and attitudes of the learner as well as their knowledge and skill development (see, for example, Brewerton, 2004a; Rutherford, 2004; Hipkins, 2006). In this sense the key competencies have a strong dispositional focus, similar to the strands of *Te Whāriki*.

Claxton (2006) maintains that a “disposition is merely an ability that you are actually disposed to make use of” (p. 6). Carr (2001) and Claxton (2006) write about the need for learners to become “ready, willing and able to learn”. This involves:

- being motivated to draw on particular skills, knowledge and values to achieve a task (being ready)
- recognising when it is relevant to do so (being willing)
- knowing how to do so properly (being able).

(Carr, 2001, p. 44)

All three aspects are considered important in order to help children become better learners and, more importantly, to encourage lifelong learning. The following observational episode illustrates the importance of cultivating dispositions in the classroom setting. In this example, the students are participating in an activity where they are required to find a specific partner. A card with a picture of an animal on it has been issued to each child. The children are then asked to find their partner by making the sound of the animal on their card.

Rangi: Make the sound Richard.
What sound does it make?

Richard: Squarwk, squarwk. (*He jumps around scratching his armpits.*)

Rangi: Ha, ha, ha. (*Rangi looks at Richard and laughs.*) Ha, ha, ha, you're a monkey aye? No, I'm not your partner.

Robin: What are you?

Rangi: He's a monkey. (*He looks at Richard.*)

Richard: What are you? (*He looks at Robin.*)

Robin: I'm a monkey.

Richard: You have to make the sound, Robin!

Robin: Nah, I'm a monkey.

Rangi: Yeah Robin, you have to make the sound.

(*Rangi and Richard stand there and wait for Robin to make the sound.*)

Robin: Nah, let me see your picture Richard.

Richard: Yeah, I'm a monkey.

Rangi: You two are cheating, I'm gonna tell Whaea [the teacher].

Richard: You only want to laugh at us, Rangi.

This episode reinforces the importance of considering attitudes, values and motivations when it comes to learning. Rangi appeared to understand the activity, but after laughing at Richard seemed reluctant to participate himself. Similarly, Robin may have been wary of being laughed at and reframed the activity so that the matching could be achieved by looking at the pictures. Richard attempted to get everyone to follow the teacher's instructions but was unable to keep everyone on track. He showed an awareness of Rangi's possible agenda (laughing at classmates making animal sounds). It seems

unlikely that the children's refusal to make the animal sounds was because they lacked the ability to do so, or were unable to see that making animal noises was appropriate in this situation. Instead, the social context, specifically the concern that other children would laugh at them, may have made the children unwilling to participate in the activity. In this sense, Rangi and Robin are "ready" and "able" but just not "willing" to participate.

An emphasis on cultivating dispositions can present some challenges. For example, the classroom episodes that were observed during this project contain a reasonable level of detail; however, they are still inferences and are subject to the interpretations of the observer. Rychen and Salganik (2003, p. 55) point out that "... [a] competence cannot be directly measured or observed, but must be inferred from observing performance to meet a demand in a number of settings".

A solution to this assessment challenge may lie in a multimethod approach to data collection that incorporates observations, anecdotal notes and child diaries or journals that chronicle their learning journey. Another solution lies in strengthening the learner-teacher relationship.

The teacher-learner reciprocal relationship

From a sociocultural perspective, the relationship between the teacher (or more skilled peer) and the learner is paramount. The key competencies, with their emphasis on dispositions, encourage teachers to reflect more widely on the conditions for learning and to be mindful of their own role in terms of a child's development. By doing this, the competencies position both the teacher and learner at the heart of the learning enterprise. This aligns with traditional Māori perspectives of learning as discussed by Hemara (2000):

While current thinking places children at the centre of learning, a traditional Māori perspective locates students and teachers in the same place. The processes of learning were reciprocal—both teachers and students learnt from each other. Teaching/learning, experience and experimentation were co-operative ventures in which everyone involved learnt something new. (p. 40)

By repositioning both the learner and teacher at the centre of learning and teaching, the

By repositioning both the learner and teacher at the centre of learning and teaching, the competencies acknowledge that both parties have an equally important role to play in each process.

competencies acknowledge that both parties have an equally important role to play in each process. This is a situation that is best reflected by the concept of *ako*:

The English language and Western educational theory make a clear-cut distinction between teaching and learning and between teacher and learner/pupil/student, by using different words. The Māori language uses one word *ako* to mean both to learn and to teach. It is converted into a noun meaning learner (*akonga*) by adding a noun ending, and into one meaning teacher (*kaiako*) by a prefix indicating actor. Verbally the Māori approach stresses the unified co-operation of the learner and the teacher in a single enterprise. (Metge, 1984, as cited in Quest Rapuara, 1992, p. 83)

The key competencies challenge teachers to become much more cognisant of the ways that relationships influence the teaching and learning process. Hipkins (2006, p. 7) notes that this “can be particularly challenging when students come from different cultural backgrounds to their teachers”. A similar comment emerged in Phase 1 of the current research when one participant suggested:

It could also be a challenge if we've got a *kaiako* Pākehā that comes in with our Māori children and they don't know how to relate to our *tamariki*, and yet this is one of the key competencies, that is *relating to others*, yet they don't know how to relate to our *tamariki*. (Judy)

Although cultural diversity can bring challenges, the difficulty may not lie in ethnicity itself but whether or not the teacher and the learner can understand the cultural world of the other. The Achievement in Multi-cultural High Schools project looked at identifying effective teaching and learning strategies used in eight low-decile multicultural secondary schools that had a high proportion of Māori and Pasifika students. This research project found that “Teachers’ age, gender, socio-economic status and/or ethnicity did not matter to students; rather it was the teachers’ attitudes that the students considered most important” (Hill & Hawk, 2000, p. 15). In saying that, however, the project did find that, in respect to culture, successful teachers were identified as having “a good knowledge and understanding of and empathy with the cultural worlds of their students” (Hill & Hawk, 2000, p. 15). Therefore, in order to

strengthen their relationships with learners, teachers need to be more mindful of the ways culture impacts on learning.

The key competencies provide an exciting challenge and important reminder to teachers that relationships play a very vital role in learning. By repositioning the teacher and the learner at the centre of learning, the key competencies appear to support the development of co-constructed learning pathways.

The social and cultural context of the school

As part of the first phase of this research, teachers and senior management at Rotorua Primary School were asked to share their thoughts on the proposed key competency framework. These discussions took place prior to the development of the draft New Zealand curriculum (Ministry of Education, 2006). One of the statements to emerge from these initial conversations was:

One box does not fit all, what is important to some schools may not be important to other schools ... You have got to look at what is important to your school and what is going to be effective in your school. (John)

John's statement was key to the research as it focused a spotlight on the significance of the school context. What might the key competencies look like at this place—Rotorua Primary School? In what ways, if any, does the context shape the nature, interpretation and expression of the key competencies?

It is important to note that in the curriculum the descriptions for all five overarching competencies (including the competency of *relating to others*) are very broad. This has been done deliberately so that individual schools have the scope to interpret these at a local level with their specific context in mind. This is extremely important in terms of the special nature of Rotorua Primary School.

As suggested earlier, the majority of students at Rotorua Primary School (97 percent) identify as Māori. There are more Māori-medium classrooms at the school than there are English-medium classrooms, and the school is built on tribal land that was gifted by Ngāti Whakaue chief Rotohiko Haupapa expressly for the purpose of education. Māori culture, history, language and values are a key feature of the philosophy, practices and processes at this

school. It is not surprising, therefore, that the nature of the key competency, *relating to others*, would reflect a Māori orientation.

Carr and Claxton (2002) maintain that “dispositions [or competencies] reflect culturally determined values” (as cited in Hipkins, 2006, p. 6). At Rotorua Primary School, seven school values are identified in the school's strategic plan. These are: *whanaungatanga* (relationships/kinship ties); *manaakitanga* (caring); *aroha* (love); *kawa* (customs); *tapu* (sacredness); *tika* (righteousness); and *pono* (truth). These values shape the nature of the competency *relating to others* and what it looks like in this context. *Relating to others* at Rotorua Primary School would therefore include:

- participating in *pōwhiri* (formal Māori welcomes)—visitors to the school are welcomed according to Māori customs and traditions and the children participate in these practices
- acknowledging the sacredness of people and places—for example, the recognition that the head of a person is considered extremely *tapu* (sacred) and should not be touched
- making connections between the physical and spiritual world, such as each class beginning and ending each school day with *karakia* (prayers)
- observing Māori customs, including the removal of footwear at the door and not sitting on tables.

Brewerton (2004b, p. 5) claims that the “key competencies take different forms in different contexts, including different cultural contexts”. What constitutes *relating to others* in this context (Rotorua Primary School) is shaped by the school values, school philosophy and the “ways of doing things here”. These may not be relevant or even appropriate in another context. Hipkins (2006), drawing on the work of Rychen and Salganik (2003), goes further and suggests that when it comes to the key competencies, the differences between cultures “... may not be in regard to the types of generic competencies but rather in the weight given to them, or the way they are interpreted, between cultures” (p. 6).

The research data that have been collected during the current project appear to support this claim. The majority of the episodes that were recorded related specifically to the competency of *relating to others*. *Whanaungatanga* is identified as a key value of the school, and a lot of emphasis is placed on the importance of *whanaungatanga*. This came through strongly

in the observations carried out in the school. In the following episode, three boys are playing with blocks, a jigsaw puzzle, attribute blocks and dice. They are playing independently, but are working beside each other on the mat. The boys are in the Years 0–1 Māori-medium classroom.

Eru takes the dice away from Kemara who is playing with it on the mat.

Tawera calls out, 'Whaea, Eru has taken the dice away.'

Eru looks down at the ground.

Tawera begins teasing Eru, Tawera puts both his hands up to his eyes and says, 'boo'.

Eru's eyes fill with water and he begins to cry quietly.

The teacher walks over to Eru and points to the board that has the classroom rules on it.

The teacher asks 'He aha tētahi o ngā ture o te rūma?' (What is one of the rules of the classroom?)

The teacher points to one of the rules on the board and reads it out aloud, 'Me noho tahi matou i roto i te aroha, tetahi ki tetahi (We work together as one with love), learn to share Eru.'

The teacher reiterates 'Mahitahi, kei te pai' (Work together, good) as she walks away from the group.

In this example, the teacher takes an active role in gently reminding Eru about the rules of the classroom and how to relate to others. She asks, "He aha tētahi o ngā ture o te rūma?" (What is one of the rules of the classroom?) Pointing to one of the rules she says, "Me noho tahi matou i raro i te aroha, tetahi ki tetahi." (We work together as one with love.) This is one example of how the values of the school are reinforced and the competency of *relating to others* is enhanced in the classroom setting, with the teacher taking the direct lead.

There were a number of indirect methods used to promote *relating to others* as well. For example, one classroom teacher spoke about her classroom seating plan where she positioned the tuakana (older students) towards the outside fringes of the room and the teina (younger class members) towards the centre of the room with her. She described this as reflecting the whānau, whereby the tuakana who were beginning to seek independence could take risks, but in a safe environment, knowing that they could

always return to the centre for regeneration and support.

It was easy to identify features of pedagogy and school practice that demonstrated the values of aroha and manaaki in action and, with them, the key competency of *relating to others*. The ethic of care (manaakitanga) and the importance of relationships were evident in the interactions between children on the playground as well as in the classroom. In this example, three children (all girls) are playing on the adventure playground. Wendy and Ann are from the English-medium stream and Jan is from the Māori-medium stream. Ann is 6, Jan is 7 and Wendy is 5 years old.

(Wendy swings across the low beams.)

Wendy: You know my name?

Jan: No.

Ann: Te wai, rūma 3 ...

Wendy: Can you do that?

Jan: Yeah, washing machine.

(Wendy watches Jan and Ann doing the washing machine.)

Jan: I can show you, come over here.

(They go to the lower bar. Jan holds Wendy but Wendy wants to get down.)

Wendy: I'm scared.

(Jan and Wendy return to the bar to try again.)

Jan: Like this.

Wendy: Stop, down [Meaning hang upside down by your legs and let your head drop.]

Jan: (Laughs) Can you do this?

(Jan is still hanging on the bar by her legs.)

Wendy: (Calling) Stop, down.

(Jan upside down on bars, hair hangs down.

Wendy moves over to Jan and strokes her hair. Bell rings, Jan drops down from the bars and they both walk away to class.)

It is not uncommon to find children from the English-medium stream and those from the Māori-medium stream playing together at the school during breaks. This behaviour is encouraged by the school. In this short episode, Wendy, who is 5 years old, draws on all the resources available to her to establish a relationship with new people. She asks the older students: "Do you know my name?" Ann responds with her correct name and room number. She responds using Māori words, which is interesting as she is in the English-medium stream.

What constitutes
relating to others
in this context
(Rotorua Primary
School) is shaped
by the school
values, school
philosophy and
the "ways of doing
things here".

In one example, Jan takes on the role of a teacher or more skilled peer, scaffolding Wendy's skill development on the outdoor climbing equipment. She demonstrates aroha and manaakitanga (an ethic of care) when she puts Wendy back on the ground after Wendy says that she is scared. Wendy shows an ethic of care towards Jan by stroking her hair while she is hanging upside down on the bars. This episode demonstrates that the children are themselves enhancing the key competency of *relating to others*.

A theoretical framework —Te tuangi

A key objective of the larger TLRI study was to contribute theoretical insights in relation to the key competencies. Our observations in classrooms, and our interviews and dialogue with teachers, eventually led to the development of the tuangi (littleneck clam) model. These observations, interviews and discussions had emphasised the important role of the social context, the teacher–learner reciprocal relationship at the heart of the learning enterprise and the social and cultural context of the school—in this case a Māori orientation towards the key competency of *relating to others*. This model illustrates the symbiotic relationship between a teacher (kaiako) and a learner (akonga). It recognises culture and context and the importance of the wider sociocultural environment.

The tuangi, or New Zealand littleneck clam, provided the inspiration for this metaphor. The tuangi, traditionally referred to as the New Zealand cockle, is part of the species *Austrovenus stutchburyi*, which is indigenous to New Zealand. Tuangi are found on intertidal sand

flats and estuaries throughout New Zealand and are of special significance to Māori.

In the following section of this article, the features of the tuangi as a metaphor for teaching and learning in social and cultural context will be identified and described and the links to the key competencies will be drawn. A pictorial representation of the metaphor has been provided (Figure 1).

The shell (teacher and learner)

The tuangi is a bivalve mollusc, which simply means that it has a shell consisting of two halves or valves. The valves are fused together at the top and the adductor muscles on each side hold the shell closed. Once the valves are forcibly separated the shellfish dies.

In terms of the tuangi metaphor, the shell represents the teacher and learner who are engaged in the process of teaching and learning. One side of the shell represents the resourceful learner (akonga) and the other side represents the resourceful teacher (kaiako). There is no separation between the two; both the teacher and the learner are positioned at the centre of the teaching and learning process. If there is distance between the teacher and the learner, the learning process is compromised.

The kai (food) represents the process of ako (teaching and learning)

When the tuangi is opened, the kai (food) inside is revealed. The kai represents the process of ako. As noted earlier, in a Māori context the term *ako* can be used in reference to both teaching and learning (Metge, 1992, as cited in Quest Rapuara, 1992). From this perspective, the teacher and learner engage in a reciprocal relationship, which fits comfortably with

sociocultural perspectives of learning and the notion of co-construction.

The key competencies are embedded in the process of ako. Both the teacher and the learner possess the key competencies of *thinking, managing self, relating to others, participating and contributing* and *using language, symbols and texts*. The resourceful teacher and the resourceful learner must decide which constellation of competencies they will draw on to achieve a task in a specific situation.

The foot (learning intention)

The tuangi has a foot that it uses to dig down into the sand or soft mud in estuaries, shores or beaches. The foot represents the learning intentions of the teacher and the learner, which are always grounded in a particular context.

The sea bed (context)

The sand or soft mud of the estuary or beach symbolises the importance of the context. The resourceful learner and teacher must draw on the key competencies that are necessary for learning and teaching in that specific context.

The siphons (access to information)

The tuangi has two siphons, through which water enters and leaves. The tuangi breathes by circulating water within its shell. This process brings in oxygen. The siphons also bring in tiny particles of plants and animals that provide sustenance for the shellfish.

The siphons are an important aspect of the metaphor because they enable the resourceful teacher and the resourceful learner to take in information from the context and surrounding environment. What is not needed is released back out into the ecology.

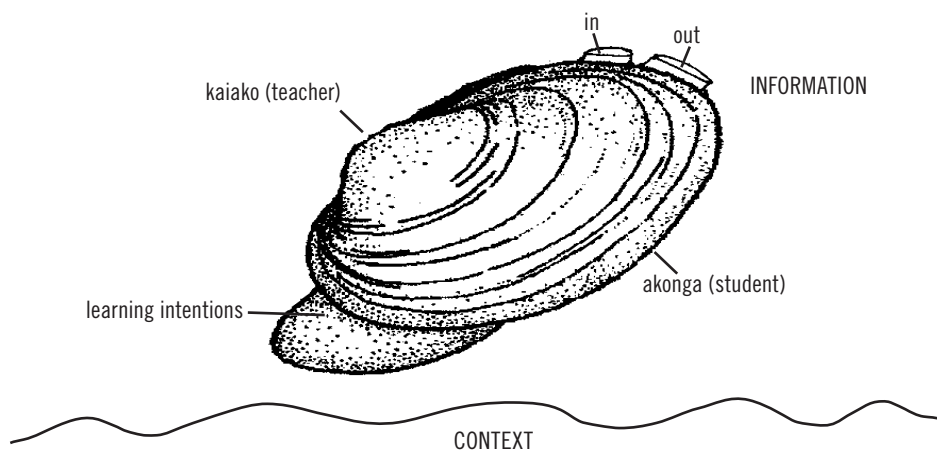
The community

Tuangi live in communities—what affects one tuangi usually affects all those in the locality. This reflects an ecological view of development, recognising the impact of wider influences on the learning process.

Conclusion

Under the key competency framework, the attitudes, values and motivations of a learner, as well as their knowledge and skills, become the focus of teacher attention. It is not possible to directly measure competencies—a competence must be inferred. This can raise some assessment challenges. A multimethod approach to data

FIGURE 1 THE TUANGI METAPHOR



collection may present a possible way forward. Strengthening the relationship between the teacher and learner is critical in relation to the competencies. The competencies framework encourages teachers to become more cognisant of the way that relationships, culture and context impact on the teaching and learning process.

The key competencies emphasise the importance of taking a sociocultural approach to learning. Teachers are encouraged to take the interactions of the learner, the teacher, the educational context and the broader social context (or ecology) into account when it comes to learning.

The tuangi model represents our understanding of what the key competencies look like at “our place”, Rotorua Primary School. The model demonstrates that in order for the competencies to be relevant in this context, they must be culturally situated. It also shows that the educational context helps to shape both the interpretation and the expression of key competencies.

Acknowledgements

We would like to thank all the teachers and senior managers at Rotorua Primary School

who gave freely of their time to help us with this research. We sincerely appreciate your participation in this project. Ehara taku toa i te toa takitahi, engari he toa takitini (Our success is not ours alone, it comes from the collective strength of the group). We acknowledge the Teaching and Learning Research Initiative for funding this project. We would also like to thank Margaret Carr and Sally Peters for providing direction and guidance as we ourselves came to understand the competencies framework.

References

- Brewerton, M. (2004a). *Reframing the essential skills: Implications of the OECD Defining and Selecting Key Competencies Project*. A background paper prepared for the Ministry of Education. Wellington: Ministry of Education.
- Brewerton, M. (2004b). *Thoughts on what students need to learn at school. Summary for discussion purposes*. Wellington: Ministry of Education.
- Carr, M. (2001). *Assessment in early childhood settings: Learning stories*. London: Paul Chapman.
- Claxton, G. (2006, September). *Expanding the capacity to learn. A new end for education?* Keynote address presented at the British Educational Research Association annual

- conference, Warwick University. Retrieved from <http://www.guyclaxton.com/documents/New/BERA%20Keynote%20Final.pdf>
- Hemara, W. (2000). *Māori pedagogies: A view from the literature*. Wellington: New Zealand Council for Educational Research.
- Hill, J., & Hawk, K. (2000). *Making a difference in the classroom: Effective teaching practice in low decile, multicultural schools*. Wellington: Ministry of Education, Research Division.
- Hipkins, R. (2006). *The nature of the key competencies. A background paper*. Wellington: New Zealand Council for Educational Research.
- Ministry of Education. (1996). *Te whāriki: He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*. Wellington: Learning Media.
- Ministry of Education. (2006). *Draft New Zealand curriculum*. Wellington: Learning Media.
- Ministry of Education. (2007). *The New Zealand curriculum*. Wellington: Learning Media.
- Quest Rapuara. (1992). *Cultural identity: A resource for educators. Whakamana Tangata*. Wellington: Author.
- Rutherford, J. (2004). *Key competencies in the New Zealand curriculum: A snapshot of consultation*. Wellington: Ministry of Education.
- Rychen, D. S., & Salganik, L. H. (Eds.). (2003). *Key competencies for a successful life and a well-functioning society*. Göttingen: Hogrefe & Huber.

Ko Te Kapotai
ehara i te paatu,
ehara i te heke,
ēngari e
Tahuhu nui o rangi.

Mary Simpson is affiliated to Te Kapotai and Ngāpuhi. She has worked in the area of Māori-medium education for the past 13 years and is currently Deputy Principal at Rotorua Primary School. As an experienced teacher, Mary has taught a range of levels from Year 0 to Year 8. She has also taught in both bilingual and full-immersion settings. Mary is a member of Te Akatea (the Māori Principals Federation) and a former member of SENCO (a reference group for children with special needs). As a tutor teacher Mary has worked alongside beginning teachers working in bilingual and immersion contexts and also liaises with a number of teacher education providers.

Email: m.simpson@rotoruaprimary.school.nz

Dr Tina Williams is affiliated to Ngāpuhi and Te Kapotai on her mother's side. On her father's side she is a fourth-generation Pākehā New Zealander of Scottish and Scandinavian descent. Tina has worked as a lecturer at the University of Waikato for 11 years. She is a member of the Department of Human Development and Counselling at the Faculty of Education. Tina teaches papers in human development and inclusive education and works primarily with teacher education students in the primary and early childhood Bachelor of Teaching programme.

Email: tinas@waikato.ac.nz