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Key learning competencies across place and time: Kimihia te ara tōtika, hei oranga mō to ao: A summary

Research over three years in three primary schools and two early childhood centres in Aotearoa New Zealand investigated three research questions associated with the strengthening and continuity of key competencies and learning dispositions. These questions were about: what children do when they are apparently managing self, relating to others, participating and contributing, thinking, and using language, symbols and texts; what teachers do to enhance learning in these areas; and how continuity is interpreted and documented.

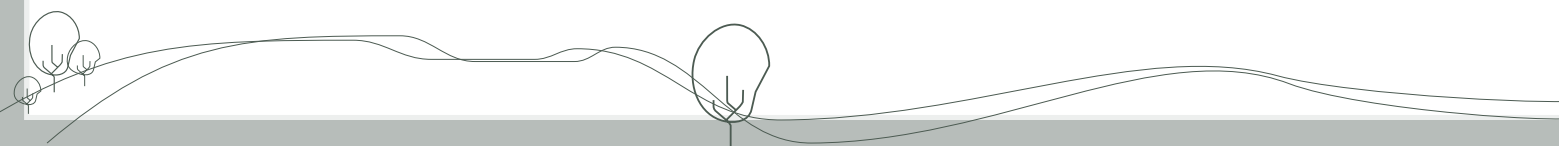
The research developed artefacts or “tools of travel” that may be useful for teachers as they work with key competencies and learning dispositions. These include arrays of indicators of learning dispositions, key competencies and teacher strategies that will assist teachers to develop their own local frameworks, the notion of co-constructed pathways of learning, theme boards, a Learning Stories Navigator database, a framework of intersecting domains of relating, the process of investigating practice using “Looking Glass” data sets, and a recognition of the negotiated balances between teacher and learner intentions and documentation strategies. At a bilingual school (Māori immersion classrooms and English-medium classrooms) observations and transcripts began the process of synthesis that linked closely with the school’s values and led to the development of a metaphor (the Tuangi metaphor) as a working theory that represented the symbiotic relationship between akonga and kaiako, between the resourceful learner and the resourceful teacher. This metaphor connected much of this project together.

Research aims and objectives

This study had three broad aims. The first aim was to contribute to a theoretical understanding of key competencies and learning dispositions. Similar outcomes have been variously described in the literature as intellectual habits, mindsets, learning orientation, patterns of strategic action, habits of mind, thinking dispositions, and learning power. The objectives for this aim were to contribute to the theoretical literature, and to delineate key features of learning dispositions and key competencies in a range of settings in order to find ways to include the ecological framing and dispositional aspects.

The second aim was to find out how teachers do (and might) enhance learning dispositions and key competencies. The objective here was to investigate the opportunities to learn or networks that appear to afford learning disposition and key competencies.

The third aim was to explore progress or continuity in key competencies and learning dispositions. The objective was to investigate case studies of the development of these outcomes over time and to conceptualise their growth or increasing strength.





Research questions

1. In a range of schools and early childhood settings that have already displayed initiative in this area, what do the children do in these diverse contexts when they are apparently managing self, relating, making meaning¹, thinking, and participating in desirable ways? How do children interpret these actions?
2. How do teachers in a range of contexts enhance continuity and growth in five domains of learning competencies: managing self, relating, making meaning, thinking, and participating? How do they interpret these actions?
3. How do teachers enhance continuity in these learning competencies over time, within and across settings? How do they interpret that continuity?

Background

When this project began, the Ministry of Education was carrying out a review of the school curriculum. One development was the inclusion of a new aspect of learning: five “key competencies” (Ministry of Education, 2007). These key competencies are aligned with the five curriculum strands in the early childhood national curriculum, *Te Whāriki*, published in 1996 (Ministry of Education, 1996). Teachers—both school and early childhood—are now required to understand more about what key competencies look like and how they are to be taught. *Te Whāriki* already included learning dispositions (and working theories) as major categories of outcome.

These aspects of learning—key competencies and learning dispositions—had two qualities that the research team had begun to find interesting and puzzling: they are *ecologically framed* and they are *dispositional*.

Research design and methodology

This was an action research or “practitioner inquiry” approach, in which school-based and early childhood centre-based teachers, university-based researchers, and university-based co-ordinators collaborated to seek answers to the research questions. There were three key assumptions to our design. We followed Cochran-Smith and Donnell (2006) in assuming that practitioner inquiry can construct theory and contribute to an understanding of knowing and learning that goes beyond the local. Our second assumption was that it was both possible and desirable to do research that privileges the role of neither teacher-researcher nor university-based researcher, but instead can forge a new role out of their interactions. The third assumption, which developed during the project, was that this project was “dilemma based”:

¹ Note that in 2007 “making meaning” was replaced as a key competency title in the school curriculum by *using language, symbols and texts*, and “participating” (which had a chequered career of name change) as *participating and contributing*.

based on interests, dissonances, and dilemmas (to do with the research questions) that teachers wanted, or came to want, to explore.

Data collection methods included observations, interviews, tape-recorded discussions, portfolios, analysis of artefacts, and case studies that included combinations of these.

Findings

New languages

Because these outcomes are both dispositional and closely tethered to the learning environment, researchers and teachers must depend on imprecise words to describe what they look like in action, in order to proceed. The words to use have to be negotiated. In this project, teachers developed arrays of cues and indicators, and changed them after listening to multiple perspectives. Talking about the research, one of the co-ordinators commented:

One of the characteristics we talked about was that it was important to become multilingual when you’re doing a project such as this, and we weren’t referring to Māori and English. We were referring to those, plus the academic language, plus the classroom and curriculum language, and the language of the children as well, so you had to be quite skilled in what you are doing.

Strategies and sites for dialogue in order to become multilingual in this sense were an outcome for this project; they emerged from interviews with teachers and families, provocations and dissonances as starting points for discussion, and documentation that was accessible to families and children or students. Children, too, added their voices.

Telescoping

Key findings for this research emerged from a process of *telescoping in* to episodes of learning and then *telescoping out* from several episodes to develop the “mid-level situated meanings” and working theories that enabled the project team to consider possible lines of direction. At Rotorua Primary School, for instance, episodes of classroom interaction were closely observed with key competencies in mind. The observations and transcripts began the process of synthesis that linked closely with the school’s values and led to the development of a metaphor (the *tuangi*).

At Discovery 1 School, observed episodes of learning over time, together with children’s and families’ contributions, were described as co-constructed pathways that traced the inter-relationships across intentions, experiences, and key competencies. These case study collections contributed to a working theory about dimensions of strength for dispositional outcomes and a data base (the Learning Story Navigator) to handle the data.



At Aratupu Preschool and Nursery, the analysis of episodes of learning led to a framework of intersecting domains of “relating”². Their research included an interrogation of specific rules in the centre by the entire teaching team over some months. Data from these investigations provided the foundation for a grouped array of teacher strategies in relation to learning dispositions and highlighted the importance of relationships among teachers. This array connected closely to the analysis of teacher strategies in one of the school sites.

At New Brighton Community Preschool and Nursery, teacher-researchers researched documented learning pathways for a number of children, and their “Looking Glass” datasets led to critique and changes in practice in terms of the types of documented stories that were valuable, and the indicators of dispositions-in-action that reflected intuitive understandings. This work illustrated the entwining of teachers’ and children’s intentions and the importance of finding a balance between them; a new framework was developed for infants and toddlers.

The teacher-researcher at Parkview School documented episodes of learning that integrated an analysis of the learning of key competencies with learning areas. This was developed in ways that were possible for a busy teacher, and contributed to an analysis of teacher strategies and dimensions of strength that made connections across all settings.

Contribution to TLRI principles and priorities

Strategic value

The findings are of strategic value as teachers seek ways to teach learning dispositions and key competencies that are true to the values in the curriculum documents, the classroom, the school, and the wider community. Work in Māori immersion classrooms in a bicultural school reminded us that cultural values are central to these dispositional outcomes. The research team in this school commented:

Māori culture, history, language, and values are a fundamental feature of the philosophy, practices, and processes at this school. The school values are: tapu (sacredness), kawa (customs), whanaungatanga (relationships), aroha (love), and manaakitanga (caring). It is not surprising therefore that the nature of the key competency, relating to others, would reflect a Māori orientation.

The “culture of the place”, in the widest sense, emerged when the project team telescoped out to look for the

² This data and the framework developed for it provided concrete examples of the Jean Lave (1996, p. 157) comment that, “‘Knowing’ is a relation among communities of practice, participation in practice, and the generation of identities as part of becoming part of ongoing practice”.

“big picture”. It was noted that when teachers live the learning dispositions/key competencies themselves they provide the opportunities for children to do so too. There was a social justice agenda: the teachers found opportunities to personalise the documentation of the children’s learning and to discuss definitions and indicators of dispositional outcomes that opened the “virtual backpacks” (Kamler & Comber, 2005) of all participants in learning, so that teachers, families, and the children could safely explore their assumptions and contribute their funds of knowledge.

Research value

A three-year project develops its own dynamic—power, balance, and pace—and in this project the university-based researchers wanted to take the time for teacher-researchers to take ownership of the direction and the pace. A feature of the project was a “distributed leadership” approach in which a shared role was forged and all participants supported and learnt from each other. The project built new knowledge in an under-researched area.

Practice value

One of the co-ordinators commented that when the teachers set out to find opportunities to understand what they do, the investigations “came across (as) dilemmas not problems”. One of the teacher-researchers said,

Well, here are the areas where we are disappointed and we have to now look at how we can address that and how do we take that challenge on and actually turn it around . . . I actually think that if we had started off with a success story we would have all gone, ‘Oh, look at that, we are doing well’.

It is a delicate balance: disappointing discomfort (to be avoided) versus interesting dilemma (to be tackled). The teachers wrote working papers along the way, and presented papers at conferences. The research developed artefacts or “tools of travel” that may be useful for teachers as they work with key competencies and learning dispositions.

Conclusion

Learning dispositions and key competencies are not easy to define, and shared languages about them can be facilitated in a range of ways. Unless meanings are co-constructed by teachers and learners, and reified in some way (made available and transparent in documentation and theme boards, for instance), the key principle behind the development of these dispositional outcomes—that learners will be able to navigate, with the assistance of other people, learning pathways and identities across boundaries of content, culture, and place—will be threatened.



In this project, the teachers were already interested in key competencies and learning dispositions; they had been working on them before the project began. This will not be the case for all teachers, but “ready-made” definitions and formats, externally developed, may set up a disastrous shortcut that reduces teaching and learning of these life-long inclinations, sensitivities, and abilities to recipes for organising children to display some target skills. Lave (1996, p. 158) makes a similar comment about the dangers of research that takes the teacher out of teaching and also takes learners’ learning out of the picture.

Ongoing research that provides exemplars of opportunities to learn in this area, from a range of contexts, would be valuable; and so would further research on the opportunities for teachers, learners, and families to hold discussions about education—and learning dispositions/ key competencies in particular—in ways that “distribute” the expertise and acknowledge funds of knowledge that teachers, learners, and families bring.

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The full reports of all TLRI projects are published on the TLRI website (www.tlri.org.nz).

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