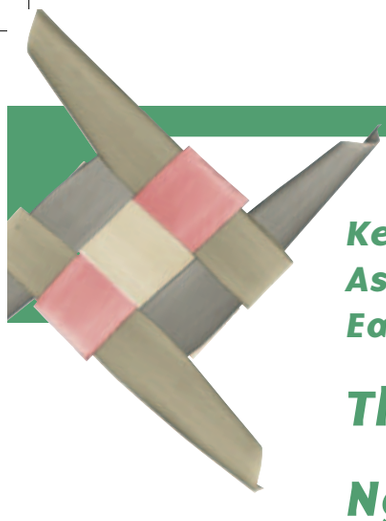

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Kei Tua o te Pae
Assessment for Learning:
Early Childhood Exemplars

The Strands of Te Whāriki: *Exploration*

Ngā Taumata Whakahirahira ki Te Whāriki: *Mana Aotūroa*

Learning Media
Wellington

Introduction

He kupu whakataki

> Teaching children as young as kindergarten age to question relentlessly and learn from their failures is the key to producing world-class scientists … We must stimulate the asking of questions by young people so they grow up in an environment that encourages scientific questioning … The education system must also help young people develop resilience in the face of repeated failure … It is so important to keep trying and trying.[1]

This book collects together early childhood exemplars that illustrate the assessment of learning that is valued within the curriculum strand of Exploration/Mana Aotūroa, keeping in mind that:

> Exemplars are examples of assessments that make visible learning that is valued so that the learning community (children, families, whānau, teachers, and beyond) can foster ongoing and diverse learning pathways.[2]

Although these exemplars are viewed through an Exploration/Mana Aotūroa lens, in many cases the lens of another strand could have been used. The principle of Holistic Development or Kotahitanga set out in *Te Whāriki* is a reminder that the curriculum "strands" are a construction, and in any episode of a child's learning, these areas are inextricably intertwined and interconnected.

Assessment for Exploration

Aromatawai mō te Mana Aotūroa

The exemplars in this book illustrate possible ways in which assessing, documenting, and revisiting children's learning will contribute to educational outcomes in the curriculum strand Exploration/Mana Aotūroa.

- Assessments value spontaneous play initiated by children and comment on the learning taking place in such play, for example, making decisions, posing and solving problems, thinking creatively, and using the imagination.

  > The concept of "what might be" – being able to move in perception and thought away from the concrete given, or "what is", to "what was, what could have been, what one can try for, what might happen" and ultimately, to the purest realms of fantasy – is a touchstone of that miracle of human experience, the imagination.[3]

- Revisiting documentation enables discussions about how learners have negotiated their way over obstacles and re-established their concentration after they have become stuck or frustrated.[4]
- Assessments of competence include noticing, recognising, and responding to the learner's physical achievements.
- Continuity of the documentation records children's perceptions of themselves as developing "explorers" and refers back to earlier documentation to encourage discussions of this. The document also includes opportunities to acknowledge that "failure", or making a mistake, is part of learning.
- Assessments promote a culture of success, where every child:

  > can make achievements by building on their previous performance, rather than being compared with others. Such a culture is promoted by informing students about the strengths and weaknesses demonstrated in their work and by giving feedback about what their next steps might be.[5]

- Assessments include evidence of teachers and children changing their minds and developing more useful working theories over time.

The four domains of Exploration

Ngā rohe e whā o te Mana Aotūroa

Te Whāriki elaborates on the Exploration/Mana Aotūroa strand as follows:

> Ko te whakatipuranga tēnei o te mana rangahau, me ngā mātauranga katoa e pā ana ki te aotūroa me te taiao … Ka ako te mokopuna i tōna ōritetanga me tōna rerekētanga ki te taiao. Ka titiro whānui, ka titiro whāiti ki ngā taonga o te ao … Kia mātau ia ki tōna aotūroa mai i te rongo ā-taringa, rongo ā-whatu, rongo ā-waha, rongo ā-ihu, rongo ā-ringa, ronga ā-kiri, ā, mai hoki i ōna whatumanawa.[6]

> The child learns through active exploration of the environment. Children experience an environment where:
>
> - their play is valued as meaningful learning and the importance of spontaneous play is recognised;
> - they gain confidence in and control of their bodies;
> - they learn strategies for active exploration, thinking, and reasoning;
> - they develop working theories for making sense of the natural, social, physical, and material worlds.[7]

The four interwoven domains of Exploration/Mana Aotūroa are described (as goals) in the English text of *Te Whāriki*, and each domain includes indicative learning outcomes.

Each exemplar presented in this book can be allocated to one of these four domains.

Exploration through play

Children learn through play – by improvising, randomly exploring, compromising, negotiating, and being playful.

> Good scientists, like good artists, must let their minds roam playfully or they will not discover new facts, new patterns, new relationships.[8]

In *The Ambiguity of Play*, Brian Sutton-Smith lists some features of the "playful", including exaggeration, playing with boundaries, playing with time, playing tricks, teasing, completing puzzles, and playing with sound. He states, "The key is that the playful is disruptive of settled expectations."[9]

The exemplar "Negotiations during block work" discusses how the children learn to negotiate and compromise when exploring ideas as a team during play.

Learning through play includes: symbolic, pretend, or dramatic play; trying out a different identity or role; and exploring how to negotiate a storyline that involves others in the same story, as is shown in the exemplar "Dressing up, painting faces, and making masks".

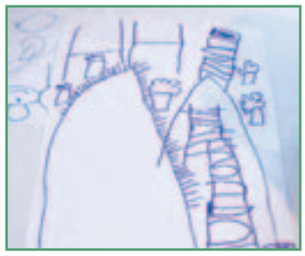
Assessments document favourite storylines and highlight the learner's developing strategies for exploring working theories and identities while at play.

Confidence with and control of the body

In early childhood, one of the most visible achievements is often a child's increasing control over their body. Children will achieve a range of milestones on the way to this control, sometimes in an idiosyncratic order. Assessments refer to earlier achievements and may highlight the motivation and curiosity associated with physical explorations, as demonstrated in the exemplar "The acrobat".

Assessments give value to sensory ways of knowing and to the developing co-ordination of mind, body, and spirit. In "Tapahia me ngā kutikuti – Cutting with scissors", looking, thinking, preparing, and practising are listed as strategies for tackling a difficult task and are documented in English and Māori. The exemplar "I'm getting better and better" emphasises the importance of self-assessment to physical achievements as well as acknowledging that Amy is developing the useful skill of perseverance.

Strategies for active exploration, thinking, and reasoning



When children have chosen their own activities, or when they have come to "own" an activity or find personal meaning in it, they are more likely to be closely involved in the activity and to ask and follow up on their own questions or questions that interest them. Often these questions will not be expressed in words.

As part of assessment for learning, teachers will ask questions too. Black and Wiliam, however, warn about verbal questioning in schools, commenting that such questioning is often unproductive because teachers don't allow enough quiet time for children to think through their responses. This warning is appropriate for early childhood teachers as well. In group discussions, it is often the same children who answer the teacher's questions. Black and Wiliam argue that the question–answer dialogue then "becomes a ritual in which all connive and thoughtful involvement suffers".[10]

In "What's over the fence?", children use a range of strategies to explore the local environment, including listening to stories of the past and thinking about questions.

Drawing a plan and modifying the design during construction prove to be useful strategies in "Sabine designs a swing". The exemplar "A budding archaeologist" shows Logan being introduced to the research strategies used by archaeologists in the real world. "I thinked about it like this" describes Luka imagining a solution and lists the other strategies he uses, including the way he teaches and assists others.

Working theories for making sense of the natural, social, physical, and material worlds

Working theories is another name for knowledge, and the term reflects the dynamic nature of children's exploration. Jane Gilbert writes about new ways to think of knowledge and learning.[11] She suggests that significant knowledge is often important for what it can do, that is, for its usefulness. Working theories are exactly that: they are useful for solving problems or making sense of the world, and when they become less useful, they can be changed.

The world outside education is increasingly valuing the ability to learn – knowing *how* to learn, how to *keep* learning, how to learn with *others* – over the ability to master specific bits of knowledge. Similarly, the ability to see a number of possibilities for solving a problem is becoming more important than knowing the right answer. Schools need to be able to develop these abilities – in everyone.[12]

The shift in emphasis from *knowledge* to *knowing* is important. Knowing is a process, whereas knowledge is a thing. Knowing is a verb. It involves doing things and acting on things. It involves building relationships and connections.[13]

Te Whāriki is a bicultural curriculum, and mātauranga Māori has distinctive features. A Ministry of Research, Science and Technology paper commented that:

> mātauranga Māori is a system which codifies knowledge according to its relatedness to environmental and life issues, rather than to what things are themselves.[14]

Writing about the development of a national science curriculum in Māori, Elizabeth McKinley commented that it "opened up space to contest whose knowledge and whose ways of knowing are included".[15]

Sources of mātauranga Māori include kaumātua and respected elders in the community, and children learn to respect and listen to their voices. Children learn "old" knowledge, handed down from generation to generation, and "new" knowledge in the form of working theories that are also useful for specific purposes. Exemplars include a grandmother explaining the significance of the morning stars in "Te haeata – Dawn"; a group of children trying to make sense of an arson attack at the local marae in "Fire at the marae"; and children exploring a common New Zealand experience (camping) in "So, what is camping?", investigating a reflection in the mirror in "Self in the mirror", and using assessment portfolios to make sense of the self as a learner in "'O le matamatagā tusi".

Exemplars in other books

Ngā tauaromahi kei pukapuka kē

The following exemplars in other books can also be viewed from an Exploration/Mana Aotūroa perspective.

Book 1: Electricity in the wall; Who knows?

Book 2: Aminiasi sets himself a goal; George gets to where he wants to be; "Write about my moves!"; Monarch butterfly adventure; The mosaic project; Letters from the teacher, letters from the parent; Assessments in two languages; A shadow came creeping

Book 3: Making jam; Pihikete's learning; Micah and his grandfather

Book 4: Dom rebuilds; Louie going out the door; Jak builds a wharenui; A story about clouds; Your brain is for thinking

Book 5: Nanny's story; A gift of fluffy slippers; Exploring local history; Rangiātea; Growing trees

Book 6: Dinosaur exploration; "I did it!"; Growing potatoes; The "mooshy gooey" bus; Skye in a box

Book 7: Te rakiraki; "Like something real"; Fe'ao

Book 8: Jayden's towers; Double-ups

Book 9: John's connecting stories; A father's story; "I can't tell you how amazing it is!"

These additional exemplars provide teachers who wish to reflect on the analysis and assessment of learning outcomes within the Exploration/Mana Aotūroa strand with a comprehensive collection of exemplars for discussion.