Version

This is the Accepted Manuscript version. This version is defined in the NISO recommended practice RP-8-2008 http://www.niso.org/publications/rp/

Suggested Reference


Copyright

Items in ResearchSpace are protected by copyright, with all rights reserved, unless otherwise indicated. Previously published items are made available in accordance with the copyright policy of the publisher.

For more information, see General copyright, Publisher copyright, SHERPA/RoMEO.
Article Title:
Ki te tika te hanga, ka pakari te kete: With the right structure we weave a strong basket.

Short title:
Ki te tika te hanga, ka pakari te kete.

Journal Name:
Cataloging and Classification Quarterly

Corresponding Author:
Penelope Bardenheier, University of Auckland Libraries and Learning Services, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand. Email: p.bardenheier@auckland.ac.nz

Co-authors:
Elizabeth H. Wilkinson, University of Auckland Libraries and Learning Services, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand. Email: e.wilkinson@auckland.ac.nz

Hēmi Dale (Te Rarawa, Te Aupōuri), Director Māori Medium Education, Faculty of Education, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand. Email: h.dale@auckland.ac.nz

Acknowledgement:
The authors gratefully acknowledge our colleague Tauwehe Tamati for her advice and encouragement during the Māori Language Readers Project.
Ki te tika te hanga, ka pakari te kete: With the right structure we weave a strong basket.

Whakarāpopototanga | Abstract

Two indigenous frameworks were successfully applied to a significant collection of junior Māori language material at the University of Auckland, New Zealand. Ngā Kete Kōrero Framework is used to assign levels to readers designed for structured literacy development and formed the basis of a new classification system. Ngā Ūpoko Tukutuku is an indigenous subject headings schema developed to empower and enrich records using Māori knowledge and terminology. Library staff worked collaboratively with Māori language literacy experts to transform access to the material. The indigenous frameworks, their application for reclassification and record enhancement, and associated benefits of the project are described.

Ngā kupu matua | Keywords

indigenous, classification, Māori, subject headings, Ngā Ūpoko Tukutuku, Ngā Kete Kōrero, literacy

Whakatakinga | Introduction

The Sylvia Ashton-Warner Library, (part of the University of Auckland Libraries and Learning Services (Library) | Te Tumu Herenga) serves the Faculty of Education and actively collects junior Māori language material. The application of two indigenous frameworks - Ngā Kete Kōrero Framework and Ngā Ūpoko Tukutuku – within a reclassification project has transformed access to Māori language readers for both students in the Māori medium initial teacher education pathway (Huarahi Māori), and other language learners.

Nearly fifty metres of the Māori Junior Non-fiction titles designed to promote literacy development were virtually unhandled. Comparable English medium readers were very well used so why not this
rich resource, the Māori language readers? Investigations revealed that intellectual and therefore physical access was in disarray. Over the years a variety of call number sequences had been applied. In addition, a lack of understanding of the Ngā Kete Kōrero system for assigning levels to instructional literacy resources added to the confusion. In collaboration with literacy specialists from Te Puna Wānanga, the School of Māori Education, the Library proceeded to reclassify and enrich two decades of junior Māori language bibliographic records.

Ngā Kete Kōrero Framework enabled us to establish a new call number sequence that reflected the different levels of Māori language readers. This achieved consistency in the collection and is also meaningful and useful to library patrons.

The application of Ngā Ūpoko Tukutuku | Māori Subject Headings to older Māori language readers’ bibliographic records provided a ‘voice’ to these records. Ngā Ūpoko Tukutuku is an invaluable tool as it provides a thesaurus of Māori language subject heading terms that patrons can relate to and use to find material in libraries.

Ngā Kete Kōrero Framework and Ngā Ūpoko Tukutuku are outcomes of “indigenous models of practice”.1 Both frameworks were developed by Māori acting assertively according to their own indigenous knowledges, practices and worldview in support of language revitalization, educational achievement and access to knowledge, and for the transformative benefit of Māori people.2 This article describes the two indigenous frameworks and their genesis, the collaborative project to enhance Māori language reader catalog records, and the positive outcomes that have been achieved.

Kapapori | Background

The indigenous peoples of Aotearoa New Zealand, now known collectively as Māori, have been in extended contact with Europeans from the late 18th century. Permanent European settlement occurred from around 1814 and the mostly British settlers came to be known as Pākehā. In 1840 Te Tiriti o Waitangi (Te Tiriti) | the Treaty of Waitangi (Treaty) was signed; the parties being the Crown and some Māori from various tribes. Both Māori language and English versions of the treaty were written, but did
not directly translate and nearly all Māori signed a version written in their own tongue. The British regarded the Treaty as a transfer of sovereignty but Māori signatories to Te Tiriti envisioned a partnership in which Māori retained self-governance and unfettered possession of their lands, waterways and resources. Nevertheless the newly arrived settlers came to dominate the country.

Colonization has had profound consequences for Māori, who have been dispossessed of most of their land and marginalized in many ways over successive generations. Language loss has been a key theme, and education a prime mechanism for advancing the assimilative objectives of the dominant society. Māori hold these experiences in common with other peoples who identify as indigenous.

However in recent decades Māori struggles for their rights under Te Tiriti have had some tangible results, notably those arising from the language revitalization movement. From the 1970s some Māori communities and groups established sites of bilingual and Māori immersion education, in particular kōhanga reo (Māori language preschools) and kura kaupapa Māori (Māori language primary/elementary schools). Prompted by judicial rulings, the 1980s saw renewed status for the Treaty of Waitangi in national legislation, recognition of te reo Māori (Māori language) as an official language and government support for kōhanga reo and kura kaupapa Māori as distinctive sectors in the state education system. The indigenous schema, Ngā Kete Kōrero Framework, is an educational resource developed in the 1990s by Māori educators to support literacy development in te reo Māori.

The highly visible resurgence of Māori activism during this period led some other individuals and groups in New Zealand society to examine the relationship of Māori and Pākehā in their own contexts. Concepts of biculturalism were discussed and various actions taken. In the library sector several national organizations sponsored reports in the 1990s around these topics. Ngā Ūpoko Tukutuku thesaurus, an indigenous response to the dominant Western paradigm in libraries, is one outcome of New Zealand libraries’ exploration of biculturalism.
Ngā pūnaha whakarōpū o te whare pukapuka | Library classification systems

The Sylvia Ashton-Warner Library uses the Dewey Decimal Classification (DDC) scheme. Arising from the 19th century North American academic milieux, DDC is extensively used across the globe. Although it has undergone a number of revisions it still reflects a particular world view and is seen by many to marginalize indigenous materials in Western libraries. In particular, the structure of DDC is viewed as not being able to effectively represent the cultural and intellectual diversity of indigenous knowledge.

The function of classification is to collocate kinds of material. According to Hope Olson “because the relationships between concepts can be drawn in a variety of ways, classifications will give more advantageous space in the overall structure to some concepts than to others”. Classification tends to reflect the most dominant version of these relationships, resulting in the marginalization of concepts outside the mainstream. This applies to the treatment of Māori material, with general information about Māori being located under the “History of Australasia …, New Zealand,” class number 993. Māori language material is classed at 499.442 – under “Miscellaneous languages” and Māori writings and literature are classed under 899 – “Other literatures”. This dispersion within the DDC scheme means that relationships between historical works, linguistic works, and Māori literature is lost. The disconnection of material is contrary to the Māori world view which values relationships as paramount. In addition, the result does not reflect the official and equal status of te reo Māori (Māori language) with English and New Zealand Sign Language.

The Brian Deer Classification scheme, used for First Nations materials in Canada, is an example of a classification scheme that is seen by some to address the issues associated with DDC and the classification of indigenous material. However for many libraries the DDC scheme remains the best classification solution at present. The Sylvia Ashton-Warner Library uses DDC across all its collections for reasons of consistency and resourcing, and in line with New Zealand school libraries. Cataloging is undertaken centrally and Māori language material is classified under “Miscellaneous languages”.

Pūāhua | Situation

The Sylvia Ashton-Warner Library is typical of tertiary education libraries in many respects. However, as with the University’s General Library and many New Zealand public and education libraries, it features a separate and clearly identified Māori collection. He Kohikohinga Pukapuka e pā ana ki te Iwi Māori (the Māori collections at the Sylvia Ashton-Warner Library) were established to improve access to Māori material, support biculturalism and serve the needs of the Faculty of Education.  

The Faculty offers an initial teacher education program, Huarahi Māori, delivered in the Māori language and underpinned by Māori customary practices and knowledge systems. The English medium teacher education programs also include compulsory courses designed to meet national requirements for graduating students around aspects of the Māori world.

He Kohikohinga Māori includes thousands of resources aimed at children and young adults, mostly published by the Ministry of Education (Ministry) from the 1990s onwards. Teacher education students should become familiar with these resources for lesson planning across the content areas, and especially Māori language learning. Hence, the existence of Library locations such as Māori Picture Books, Māori Junior Fiction and Māori Junior Non-fiction.

During 2009 the attention of Library staff became focused on the at-capacity Māori Junior Non-fiction shelves, which were also seriously under-browsed and under-borrowed. Ministry resources for classroom use in te reo Māori continued to accumulate but multiple copies of most titles remained in pristine condition. Some titles looked as though they should be in Māori Picture Books; others with natural history. Some appeared to be periodicals; most were monograph series. Some older series were translations of English language literacy resources but the classification was dissimilar. For example the English language version had cutters indicating reading levels but the Māori equivalents were based on author.

The diversity and volume of material was very concerning. There was over 45 metres of stock written in te reo Māori and cataloged as language learning material, as indeed most of it was. However the
works had been classified variously over time by title, author, series or combinations of these, dependent on the judgment of the cataloger working in consultation with the subject librarian.

Wherever possible the practice with Māori junior resources was to follow the classification of equivalent English material but in the case of the readers both purpose and framework were obscure to Library staff. Therefore any indigenous knowledge structure underpinning the resources was being lost in the classification process, and the ability to identify literacy series and the reading level of items heavily compromised. The situation called for investigation and resolution.

**Tūhuratanga | Investigation**

As in many New Zealand organizations Pākehā Library staff working with Māori material lacked not only te reo Māori, but also an understanding of language learning resources and literacy development in Māori contexts. Fortunately experts in these areas were close to hand, and the Library called on Te Puna Wānanga (School of Māori Education in the Faculty) for advice.

It became apparent to Library staff that much of the material was explicitly designed to support Māori language and literacy development. Key monograph reader series such as He Purapura and Ngā Kete Kōrero were identified by the literacy experts. Conversations began with the Māori collections’ primary cataloguer about how this material might be described more effectively - the initial thinking being to group it by series and then title.

English language literacy development is supported in New Zealand by a levelling system called the Colour Wheel. Children begin with readers denoted Magenta and progress through nine color-coded levels incorporating 22 finer gradations to independent fluency at Gold. Prior to the 1980s junior English language readers were color-coded red, yellow, green and blue but Marie Clay’s work on Reading Recovery established the need for more steps. The Colour Wheel was developed in the early 1980s alongside the revised Ready to Read series. The color sequence does not conform to the usual gradation in hue but aligns texts with the 4-color categorization pre-dating Ready to Read and infills with other distinct colors. Alongside gradations within colors, texts are identified on the Colour Wheel.
logo as suitable for Guided reading by the superposed letter G. Teachers use professional judgement to identify higher or lower difficulty texts for children to read on their own (Independent) or in Shared contexts.

For some years the Sylvia Ashton-Warner Library has been classifying English language readers by the Colour Wheel - at color level only - so as to group levelled resources; thereby enabling the key access point for this material. However connections between the Māori readers and the Colour Wheel were absent, and Te Puna Wānanga had not realized that levelling systems could be drawn upon to bring order to the shelves.

Therefore it was a red letter day when the Ngā Kete Kōrero Framework Teacher Handbook came to the attention of Library staff. \(^2^1\) It described an overarching framework for assigning difficulty levels to Māori language readers, analogous to the Colour Wheel in purpose but fundamentally different in nature. Both frameworks lay out a progressive levelling system for categorizing resources intended to help children learn to read. However they reflect differing language contexts, pedagogies and beliefs about knowledge acquisition. The genesis and distinctive features of *Ngā Kete Kōrero Framework* will be discussed below. For the Cataloging Department (Cataloging) the discovery of the *Ngā Kete Kōrero Framework* was a major find as it provided the key to formulating a sequenced call number classification. This classification would incorporate the much needed reading level and provide a structure that supported the progressive levelling of Māori language readers on the shelves.

### Ngā Kete Kōrero Framework: Whanaketanga | Development

The advent of Māori language immersion schooling in the 1980s brought a demand both for an increase in the number of Māori language readers and for a systematized reading framework for those learning to read through the medium of the Māori language. The few Māori language children’s books in existence had not been written for literacy development purposes but to provide some literature in te reo Māori for New Zealand primary school children. The expression “necessity being the mother of invention” had particular resonance for teachers in the first decade of Māori immersion classes who, as
one strategy, made new use of English language readers by translating them and pasting Māori language text boxes over the top of the English text.  

The Colour Wheel, used successfully in the Ministry of Education’s Ready to Read series to show the gradation of English language texts, was educationally and politically inappropriate for grading Māori language readers. Children beginning to read in the Māori language were not in the same position as those learning in the dominant language, English. For example, children’s books in Māori were rare rather than abundant and te reo Māori was usually not the children’s first language. Neither was the language spoken in many homes or in wider society. Māori language materials formed “the de facto Māori language universe for many children”. Second language learners were often learning the language at the same time as learning to read, which had pedagogical implications. Another difference from the English context arises from the phonemic regularity of Māori language, which affects the balance between reading accurately and reading for meaning at various stages of literacy development.

The founders of Māori immersion education in the 1980s drew up guiding principles, Te Aho Matua, based on Māori philosophies and Māori control of Māori contexts. This nexus of concepts has found expression in Kaupapa Māori theory, which emphasizes transformative change brought about by Māori, for Māori according to Māori principles and precepts. Mason Durie has articulated goals for Māori education which have become widely accepted; including “to live as Māori” and “to actively participate as citizens of the world”. Māori educators, at the forefront of re-conceptualizing Māori schooling, sought an indigenous approach to Māori literacy development resources and tools.

Publication by the Ministry of Education of readers written entirely in te reo Māori and designed for Māori learner contexts began in the late 1980s and continues to present times. The subject matter ranges across both modern and traditional families and communities, urban and rural contexts, indigenous narratives and practices, new technologies and popular culture, Māori concepts relating to guardianship of the natural world and other content of interest to children and young people. The body of work represented by various reader series provides material to support the whole spectrum of Maori experience envisaged by Durie.
Much energy was expended by schools in developing their own frameworks for levelling Māori language readers. However criteria varied widely and there were also diverse judgments about the level assigned to particular readers. Sometimes there would also be a difference in the scale of progression from one reading level to another.

National educational goals of promoting higher levels of achievement for Māori students and the revitalization and maintenance of the Māori language created the opportunity for the establishment of a Framework Group in 1993. This group oversaw the development of a research-based reading framework named *Ngā Kete Kōrero*, founded on a Māori world view. The use of the word kete (basket) established an immediate connection to the Māori mind, being the receptacle by which knowledge was brought to te ao kikokiko (the physical world) for the benefit of humankind. In the context of the reading framework the phrase “ngā kete kōrero” means “baskets of language”; each basket representing a reading level within the Framework.

The four levels are: te kete harakeke (flax basket), te kete kiekie (kiekie basket), te kete pīngao (pīngao basket) and te kete miro (miro basket). Harakeke corresponds with the ata pō or emergent reading stage, kiekie with the ata puao or early stage, pīngao with the ata tū or early fluency stage. Miro corresponds to awatea or fluency. Each of the kete are subdivided into A, E, I, O, representing a progression from low to higher levels. Across the kete there are only ten sublevels – about half those found around the Colour Wheel, and a reflection of Māori learner contexts. The following table shows each of the levels of the *Ngā Kete Kōrero Framework* together with their associated sublevels.

See Table 1.

[TABLE 1 HERE]

The criteria developed for identifying and assessing difficulty levels of Māori language readers for children (vocabulary, text, language structure and illustrations) take into account the nuances of learning to read in Māori. These nuances include the phonetic nature of the Māori language, the linguistic demands of texts for second language speakers of te reo Māori and the pedagogical importance of a scaffolded approach focused on ensuring comprehension. Variability in language learning contexts and
the practice of Māori pedagogies mean that appropriate texts for Guided, Independent or Shared reading are not indicated - teachers make their own determinations.

In addition, the Framework reflects its foundations in a Māori world view. For example, the woven baskets hold layers of symbolic and metaphorical meaning in addition to serving functional purposes in literacy contexts. As well as referencing Māori narratives around the acquisition of knowledge, the texture of the woven baskets reveal a progression that parallels literacy development; harakeke being the coarsest and commonest fibre for weaving and pingao the most fine and prized.

The result is a distinctively indigenous framework for scaffolding literacy development, having some parallels to English language levelled reader schema, but with notable differences in foundations, structure and application. That which is distinctive about Ngā Kete Kōrero Framework has arisen not only from research around the acquisition of literacy in te reo Maori but because the project was undertaken by Māori people for Māori learners. In contrast, the Colour Wheel reflects a pragmatic approach to its development and reflects learner needs determined in the context of an English speaking majority culture and the national schooling system.

**Ngā Kete Kōrero Framework: Te rongoā | Solution**

Fourteen years after the advent of the Ngā Kete Kōrero Framework Library staff realized that here was a schema that would provide Cataloging with the means to classify Māori language readers at appropriate, easily identifiable reading levels. However assistance was needed to identify the exact purpose, audience and continuing relevance of multiple reader series in te reo Māori. The Library and Māori literacy experts at Te Puna Wānanga engaged in further discussion around the educational and publishing characteristics of junior Māori language series.

Another issue was associating reader titles with levels. The evolving nature of Māori reader publishing over more than two decades had resulted in multiple scenarios, even within series. Fortunately, despite appearances a large proportion had been authoritatively levelled and could be identified either by various Ministry of Education handbooks, teacher guides and pamphlets, or by printed symbol on texts
published after 2005. Some titles which fell through the gaps had been assigned levels by recognized experts in the field. However we were initially confronted with a very confusing situation and it took considerable time to track down and authenticate the authorities.

Preliminary work in understanding the nature of the educational reading resources at Māori Junior Non-Fiction and the realization that a reading level schema existed made resolution of the problem technically possible. However over 700 records would have to be re-cataloged and nearly thirteen thousand items reprocessed. A project to improve access to this material would require a significant commitment of Library resources, and solid justification.

A project proposal was put forward citing overall benefits of: improving intellectual and physical access, increasing usage, facilitating learning and the development of language and information literacies, supporting Māori language revitalization and addressing an inequitable situation. Intellectual access could be further improved by the application of Ngā Ūpoko Tukutuku | Māori Subject Headings, and the enhanced records made nationally available. The University of Auckland Libraries and Learning Services was supportive of a thorough reclassification of the material and work commenced at the end of 2010.

Ngā Kete Kōrero Framework: Whakatinanatanga | Application

The first step in reclassification was to establish a call number sequence that would reflect the different levels of Māori language readers and meet the needs of Library patrons. In the past, a decision was made at Sylvia Ashton-Warner Library to assign the DDC 499.3 (Malagasy language) instead of the more correct 499.442 for Māori language readers. Unfortunately we only had limited resources for this project, and had to give priority to indicating reader levels. Therefore 499.3 was retained for the reader material, which does ensure it remains as a discrete section within Māori Junior Non-Fiction. We acknowledge that 499.3 is not an accurate reflection of content in the DDC system.

Over the years a variety of cutters had been added to 499.3. They consisted of three letter groups identifying series, reading level, and title. However cutters had not been applied consistently, and
frequently the reading level had either not been included or was not prominent in the call number sequence. Our overall aim was to establish sequences that would achieve consistency in our Māori language reader collection.

The *Ngā Kete Kōrero Framework* included an abbreviation schema providing a graded flow in reading levels. 31

- e.g. Kete Harakeke A = KHa
- Kete Harakeke E = KHe
- Kete Harakeke I = KHi.

See Table 1, above.

This abbreviation schema forms the first and most significant part of the new Māori readers’ cutter sequence. The schema was varied slightly by including a hyphen between the ‘K’ and following letters. The result is to improve recognition for shelving and to make the Framework, kete, and sublevel more readily identifiable to users. The level is followed by the first three letters of the series and then title.

- e.g. 499.3 K-Ha KET KOT corresponds to:

The *Ngā Kete Kōrero Framework* abbreviation schema achieves the desired flow in classification, reflecting reading levels, with the exception of Miro (fluency). The official abbreviation for Miro, M, would place these titles in the midst of Māori junior journals following the readers. We considered applying K-M to this level but it would be out of sequence within the Framework progression, placing it before the early fluency level, K-P. So, we assigned the letter ‘R’ to correct the placement thereby allowing Miro (K-RMiro) to sit after K-P (the previous level) and before K-T which we have used for teacher guides related to *Ngā Kete Kōrero Framework*. See Table 1, above.

Having recognized the importance of the Framework and applied the abbreviation schema to the two main series, Ngā Kete Kōrero (series) and He Purapura, other Māori reader series were reviewed. Ara pānui and Ara pūretā (Pīpī) were mostly levelled and the call number sequence could be adjusted to reflect: Framework/Part/Level – Series – First letters of title. The series Tōku Kōhanga consists of books
published specifically for early childhood education. The letter ‘H’ was assigned to the cutters of these books, thereby allowing them to sit before the levelled readers - having cutters beginning with ‘K’. 32

The series Ōku Wawata would have been interspersed with readers by the new classification system as titles were levelled. However it is a very short series with a focus on health – a content area somewhat ill-served by published material to date. 33 Māori medium schools and language units reportedly use Ōku Wawata in health rather than literacy contexts. In consultation with Te Puna Wānanga the Library decided to classify these works by topic, placing them outside the levelled readers section.

A number of titles appeared not to have been levelled or lacked a sublevel, for example He Purapura titles published between about 2000 and 2003. Series within Te Huinga Raukura have Kete assigned but two (Kahukura and Whatukura) do not have sublevels. 34 In cases where available authorities did not provide needed information Te Puna Wānanga literacy specialists undertook outstanding levelling. On completion, both local bibliographic records and those in the New Zealand National Bibliographic Database were enhanced.

The junior journal series Kawenga Kōrero, He Kohikohinga, Ngā Kōrero, Te Tautoko, Te Whakawhiti, and Te Wharekura consist of collections of articles and stories aimed at independent readers and sit beyond the works levelled by the Ngā Kete Kōrero Framework. There is some progression in difficulty with respect to both language and concepts across series, but difficulty is not defined below the level of series. Fortuitously, the existing alphabetical classification by series title (excluding the words ‘He’, Ngā’ and Te – which are prepositional) achieved a low to high gradation of fluency and so reclassification proved unnecessary. The call number sequence for these journal series only display the series and first three letters of title e.g. Kawenga Kōrero has the cutter KAW for the series and is followed by the first three letters of the title.

Therefore there is a progression in reading levels over the entire extent of junior Māori language material designed for literacy development, from early childhood texts through the levelled readers; continuing at fluency to a progression of junior journals.

See Table 2.
New Zealand libraries have preserved Māori knowledge that has come into their possession in various forms, but there has often been an imperfect understanding of the material and problems with accessibility. For example, researchers attempting to compile a tribal bibliography of Ngāti Kahungunu found inadequate description of indigenous knowledge via library catalogs to be a significant barrier. Their ability to identify and retrieve material was governed by the mono-cultural, monolingual and Western systems used in most libraries - systems that tended to stand between Māori and their taonga and mōhiotanga, treasures and knowledge.

Documented cases such as these led weight to bicultural initiatives examining the nature of New Zealand libraries’ custodianship of Māori material, services to Māori and the cultural competencies of library workers. Te Ara Tika was a project sponsored from the 1990s by several national organizations: the New Zealand Library and Information Association, Te Rōpu Whakahau (Māori Library and Information Workers Association), and subsequently the National Library of New Zealand. Several Te Ara Tika reports were published; the second included recommendations relating to access tools - in particular the development, promotion and use of a Māori subject headings thesaurus. In 1998 a National Forum on Māori subject headings was convened with the objective of exploring solutions to provide better subject access. At this forum catalogers suggested an option for “the allocation of a standard field in the MARC record designed to be used for a local nationally approved thesaurus”. The Māori Subject Headings Working Party was constituted and produced draft guidelines and recommendations, culminating in the Te Ara Tika: Ngā Ingoa Kaupapa Māori report in 2005. Construction of the list of Māori subject headings began that year and the Ngā Ūpoko Tukutuku online thesaurus was launched in 2006.

The objective of providing a thesaurus for use throughout New Zealand was achieved, and an invaluable resource for catalogers established. The purpose of Ngā Ūpoko Tukutuku is stated as being:
"to provide a structured path to subjects that Māori customers can relate to and use to find material in libraries …. It has been developed so that cataloguers and descriptive archivists have a reliable and comprehensive resource to use when describing material either in or about Māori”.  

The thesaurus name, Ngā Ūpoko Tukutuku, is based on analogy with how “words are woven into the structure of the thesaurus”, reflecting the way a team works, each with separate knowledge that is woven together. Ūpoko means head, upper part, headings; tukutuku is the complex patterning of lattice work or woven panels.

The thesaurus is bilingual and incorporates the holistic nature of a Māori worldview in its construction. The Kaupapa (terms) are woven into a Wharenui (meeting house) structure that recognizes the relationships between Te taha tinana (the people), Te taha wairua (the spiritual) and Te taha hinengaro (the mind). It incorporates Māori ways of thinking and te reo Māori (Māori language) into an information retrieval model.

A selected term or Kaupapa within the thesaurus is defined in both te reo Māori and English. The structure will usually provide: Whakamārama, an explanation or scope note explaining the meaning in Māori and a scope note in English; Tahūhū (broader term) and Heke (narrower term). Also linked to the Kaupapa is Kaho (related term), Tukutuku (used for) and Reo a Iwi (dialect term). Most of the terms can be identified as subject headings and are to be found on the New Zealand National Bibliographic Database as authorized headings. The headings provide a controlled vocabulary which allows for greater accuracy when conducting a subject search, and uniformity across New Zealand libraries’ catalogs.

The Library of Congress MARC Standards Office has authorised the use of a source code ‘reo’ to identify Ngā Ūpoko Tukutuku terms used as subject headings. Terms are normally used in addition to the Library of Congress Subject Headings. The headings are added to MARC bibliographic records in the following way:

e.g.  650_7 $a Whenua. $2 reo
Ngā Ūpoko Tukutuku does not contain personal or corporate body names or geographical place names. However the Iwi-Hapū Names List has been developed as part of the Māori Subject Headings Project. The list is a separate thesaurus and is applied differently. The thesaurus allows all material that relates to the same Iwi (nation, people, tribe) or Hapū (section of a large tribe, clan) to be catalogued or described in a consistent manner. Therefore material relating to specific regional groups can be retrieved collectively when searching the library catalog.

Ngā Ūpoko Tukutuku is regularly updated and “now lists over 1,400 headings and their associated references appropriate for use at a public library level”. New terms are developed by Te Whakakaokao (Ngā Ūpoko Tukutuku Reo Māori Working Group). The terms are key to accessing indigenous knowledge within the library catalog environment. They provide a ‘voice’ to bibliographic records that had previously been difficult to locate by linking library patrons with indigenous epistemology. Ngā Ūpoko Tukutuku also helps to sustain and promote the taonga, te reo Māori.

For those catalogers with limited te reo Māori it is the English definitions or scope notes that are of greatest importance, as without these guidelines it would be difficult to identify correct terms or subject headings. The scope notes can also provide information based around a different paradigm than that used in the Library of Congress (LC) subject headings. An example is the LC heading for ‘Land tenure’. This has quite a separate meaning from the apparently equivalent ‘Mana whenua’ in Ngā Ūpoko Tukutuku - which has the scope note “Customary law relating to the iwi/tribe's connection, ownership rights and role of stewardship to a particular area of land.” This example reinforces the value of scope notes to anyone working in this unfamiliar context.

Of concern is anecdotal evidence pointing to a degree of disquiet amongst some in the New Zealand cataloging community around using Ngā Ūpoko Tukutuku, supposedly from an inability to identify correct terms. An option reportedly taken in some cases has been to leave them out of the bibliographic record or to only apply them within a local library catalog. From the outset, catalogers have been encouraged to attend workshops and communicate directly with experts associated with Te Whakakaokao and Te Rōpū Whakahau (Māori in Libraries and Information Management). However there still appears to be a lack of confidence or commitment to this most valuable cataloging resource.
in some quarters. Jacinta Paranihi suggests that for the potential of Ngā Ūpoko Tukutuku to be fully realized, librarians need to engage in reinvention – involving not only technical skills, but also a degree of imagination and an appreciation of things Māori. 50 Within national and local organizations, suitably resourced ongoing measures are needed to address real or perceived issues. In contrast to concerns alluded to above, the experience of cataloging staff at the University of Auckland working on the Māori readers project has been that Ngā Ūpoko Tukutuku can be applied to very good effect.

Ngā Ūpoko Tukutuku | Māori Subject headings: Whakatinanatanga | Application

The establishment of Ngā Ūpoko Tukutuku in 2006 greatly improved the accessibility to indigenous knowledge in all new bibliographic records imported from the National Bibliographic Database to local catalogues. These records included junior Māori language readers published from that date. However the older Māori language readers’ bibliographic records within the University of Auckland’s Catalogue, dating back to 1979, lacked Māori Subject Headings. The decision was made within the scope of the Māori language readers project to retrospectively enhance these records using Ngā Ūpoko Tukutuku.

As with English texts, the nature of Māori language readers is that they are published as instructional reading material, providing fictional and non-fictional texts that reflect the cultural identities, interests and experiences of children growing up in New Zealand. 51 The books are about topics familiar to children such as animals, family, and nature – sea, sun and so on. When the project to update the reader bibliographic records began, it was found that Māori Subject Headings’ terms relevant to children such as Ngeru (cat), Whānau (family), Moana (sea) and Rā (sun) were in the thesaurus. However the number of terms relevant to children was somewhat limited at the time and this caused a few difficulties in applying the correct subject heading to represent the topic. Some libraries have created their own ‘in-house’ lists of Māori terms specifically for children. There was a time when the University of Auckland’s Library also had an ‘in-house’ list of Māori terms. These terms were general rather than specifically for children’s topics. However since the advent of Ngā Ūpoko Tukutuku, and with the Library’s current preference for authorized headings, the in-house list is no longer used.
Since the commencement of the junior Māori material upgrade project in 2010, Ngā Ūpoko Tukutuku has expanded and the number of terms relevant to children has increased. However there still remain terms that are not included, as would be expected with a thesaurus under ongoing development. An example of compromises being made, and perhaps opportunities being missed, can be illustrated by the absence of a term for ladybugs. There is the option to use the broader term, insects (aitanga pepeke), which still gives ‘direction’. However aitanga pepeke has not been used by the National Bibliographic Database for the record in question; only the English subject heading related to the topic (ladybugs) was applied. The preference of the University of Auckland Library’s Cataloging Department is to use the correct descriptive subject heading wherever possible. In the absence of an exact term, the broader term, aitanga pepeke, was added to the record.

Initially the Māori language reader records to be enhanced were imported from the National Bibliographic Database and overlaid existing records. These imported records did not usually contain the subject heading Pānui pukapuka, so it was added locally. Pānui pukapuka has the scope note “Works containing material for instruction and practice in reading te reo Māori”. The use of Pānui pukapuka enhances the bibliographic record and aids retrieval for library patrons using the catalog. The absence of Pānui pukapuka in imported records was raised in 2010 at the national LIANZA Conference. Subsequently all Māori language reader bibliographic records imported from the National Bibliographic Database now contain this subject heading.

Māori language readers support Māori literacy and language development and the importance of this growing body of literature cannot be underestimated. The ability for library patrons to effectively retrieve this indigenous material is strongly linked to the application of Māori Subject Headings relevant to children’s topics. Continuing expansion of the Ngā Ūpoko Tukutuku thesaurus with an emphasis on Māori terms relevant to children is highly desirable. Catalogers and other interested parties are encouraged to support this objective by submitting new terms.
The Māori readers’ project has resulted in a user-centered classification scheme that is proving its worth locally and nationally. Usage of the material has increased dramatically. Several years later a number of other outcomes and benefits are apparent.

Students throughout the Faculty of Education are able to plan effective Māori literacy development strategies for the classroom using appropriate resources. They can identify reader titles according to level of difficulty by undertaking a call number search in the catalog or by browsing the shelves.54 Organization of the Māori readers is aligned with the official indigenous levelling schema, Ngā Kete Kōrero Framework, used in classrooms to support Māori language literacy. Te Puna Wānanga lecturers can now confidently send students to the Library on literacy resource-finding missions. Topic searching across Māori junior resources has been vastly improved by the application of Ngā Ūpoko Tukutuku and the reader content is integrated, via subject headings, into the range of Māori Junior Non-Fiction content. Māori language learners in the wider University can also use the material to scaffold their own language development. In all these ways the project is furthering the revitalization of te reo Māori and supporting Māori education.

Library personnel have become much better informed in areas relevant to their professional roles and activities. A better understanding of the resources has provided a basis for de-selection of excess copies and transfer of archival material including some rare early Māori language readers. Shelving is far more straightforward now there is a clear basis for organization. Frontline staff are better able to assist users discover items in this collection. Cataloguers have benefited from having greater certainty when describing the material. The Cataloguing department’s capacity for working with Māori resources and Māori information frameworks has deepened and strengthened. In an environment where some are hesitating to make use of Ngā Ūpoko Tukutuku it is important that stories such as these are told, so as to encourage and inspire others.

Enhanced records are nationally available on the National Bibliographic database; and this has proved timely as the Ministry of Education recently opened up the distribution of its junior Māori language resources to public libraries. The extensive work done in matching titles to reader levels has been used by another tertiary institution in a reclassification project, and other institutions are contemplating
similar work. A local kura kaupapa Māori (Māori medium school) has used the catalogue to identify levels for reader titles and reorganize their resource room.

Both kaupapa Māori terms and kaupapa Māori indigenous foundational schema have been applied in appropriate contexts - releasing these Māori literacy resources, to a significant extent, from the strictures of inappropriate Western bibliographic systems. The Māori readers' project has set a dysfunctional situation to rights, and by providing effective access has raised the Māori language reader collection to reflect its equal status with English language material.

The project can be seen as demonstrating the possibilities inherent in the bicultural partnership envisaged by Te Tiriti o Waitangi. By being prepared to reconsider assumptions and common practices Pākehā Library staff were able to work collaboratively and constructively alongside Māori literacy experts for the benefit of learners and the wellbeing of the Māori language. In the process of working together (kotahitanga) we have strengthened connections (whakawhanaungatanga), and these relationships will continue to lead to positive outcomes.

**Māori Language Readers Project: Te Mahi Ngātahi | Collaboration**

For Cataloging the success of the project was dependent on collaboration. Interdepartmental co-operation between Information Services and Lending at the Sylvia Ashton-Warner Library led to Cataloging being alerted to the extensive classification problem associated with the junior Māori language material. Information Services were instrumental in identifying the invaluable resource *Ngā Kete Kōrero Framework* which was the key to formulating the new call number sequences. Information Services were also responsible for ‘driving’ the project as without their insight it may not have preceded.

Collaboration extended outside the confines of the Sylvia Ashton-Warner Library with expertise from Te Puna Wānanga, the School of Māori Education, and access to supporting and background material for *Ngā Kete Kōrero Framework* and *Ngā Ūpoko Tukutuku*. The inspiration, dedication and expertise of the creators of both *Ngā Kete Kōrero Framework* and *Ngā Ūpoko Tukutuku* continues to resonate through their works and has been a source of ongoing encouragement. Assistance from National Library
School Services (Māori), Te Rōpū Whakahau, the Ministry of Education and Huia Publishers at pivotal points is also acknowledged.

Without the support and advice of the aforementioned groups the Māori language readers’ reclassification project would have lacked cohesion. The end result is a collection that is both meaningful and useful to library patrons.

**Whakawhāiti | Conclusion:**

*Ki te tika te hanga, ka pakari te kete: With the right structure we weave a strong basket.*

Prior to 2010 junior Māori language material at the Sylvia Ashton-Warner Library was being held in inappropriate structures which closed off access and suppressed indigenous knowledge. In these respects the organization of the collection did not meet the demands of social justice around providing equitable access for indigenous people.55 More broadly, it was not fulfilling the Library’s responsibility to connect the community it serves with needed information, as the national body, LIANZA, states it is ethically bound to do. 56 In collaboration with Māori literacy experts and by application of the indigenous knowledge frameworks, *Ngā Kete Kōrero* and *Ngā Ūpoko Tukutuku*, Library staff have been able to provide suitable structures for the junior Māori literacy resources and make them available to all.

The metaphor of the baskets of knowledge which underpins the *Ngā Kete Kōrero Framework* is exceedingly apt in a cataloguing context. Bibliographic records can be seen as baskets containing information about works, constructed to both hold information securely and display it to best advantage. By using *Ngā Kete Kōrero Framework* to devise a classification system these indigenous sources have been appropriately structured and organized for effective retrieval.

The use of *Ngā Ūpoko Tukutuku* brings together knowledge according to the Māori worldview, enhancing Māori language access and facilitating retrieval. Cataloging indigenous material with an indigenous thesaurus confers the ability of achieving greater accuracy and integrity. As with *Ngā Ūpoko*
Tukutuku the application of authorized names from the Iwi-Hapu Names List is a significant enhancement that has improved standardization.

Devising a workable structure for Māori junior literacy resources has only been possible by working together. What we see, looking backwards and forwards, is a sustained unity of purpose; kotahitanga. We have leaned on and learned from each others’ understandings and experience, and filled our own kete mātauranga (knowledge baskets). Key participants are also conscious that they have been involved in a productive collaboration in a bicultural space with very positive outcomes; an example of how partnership under Te Tiriti o Waitangi can be realized.

Papakupu | Glossary

Note: Definitions which are preceded by [MSH] have precise meaning in the context of Ngā Ūpoko Tukutuku | Māori Subject Headings, and may or may not be otherwise applicable

Aotearoa - New Zealand. Terms are sometimes used together: Aotearoa New Zealand

Hapū - subtribe

Harakeke – flax, used for weaving

He Kohikohinga Pukapuka e pa ana ki te Iwi Māori - the Māori collections at the Sylvia Ashton-Warner Library, University of Auckland, New Zealand

Huarahi Māori - Māori medium teacher training programme at the University of Auckland, New Zealand

Iwi - a nation, people, tribe

Kaiako - teacher

Kaupapa - [MSH] term; foundations, ground rules, plan, schema

Kaupapa Māori – Māori philosophy, theory

Kete - basket
Ki te tika te hanga, ka pakari te kete – With the right structure the basket is strong

Kiekie - New Zealand climbing plant used for weaving

Kōhanga reo – language nest; used for most Māori medium preschools; education delivered in the Māori language and underpinned by Māori principles and practices

Kōrero - speak, talk; conversation, story, narrative, discussion

Kotahitanga - unity, solidarity

Kura kaupapa Māori – Māori medium primary (elementary) school; education delivered in the Māori language and underpinned by Māori principles and practices

Māori - collective term for the indigenous peoples of New Zealand

Māori medium – delivered in the Māori language

Mātauranga - knowledge gained through education


Mōhiotanga - knowledge

Ngā Kete Kōrero - baskets of language

Ngā Kete Kōrero Framework - framework for levelled Māori language readers, designed to develop literacy

Ngā Ūpoko Tukutuku - Māori Subject Headings

Ngāti Kahungungu - a Māori tribal group / tribe

Pākehā - New Zealanders of European descent

Pānui pukapuka - [MSH] Māori language reader, book levelled for literacy development purposes

Pingao - golden sand sedge plant used for weaving

Pukapuka - book

Reo - language
Tai Tokerau – Northland region of New Zealand

Taonga - property, treasure, anything highly prized

Te ao Māori - the Māori world

Te Ara Tika - project examining the nature of New Zealand libraries’ custodianship of Māori material, services to Māori and the cultural competencies of library workers

Te Puna Wānanga - School of Māori Education within the Faculty of Education, University of Auckland, New Zealand

Te reo Māori - language of the indigenous peoples of New Zealand

Te Rōpū Whakahau - national organisation representing Māori in Libraries and Information Management

Te Tiriti o Waitangi, Te Tiriti - The Treaty of Waitangi, the Treaty

Te Tumu Herenga – Name gifted to the University of Auckland Libraries and Learning Services

Te Whakakaokao - Māori Subject Headings Working Group

Tikanga - correct and true way; culture; customs and traditions that have been handed down

Tukutuku - [MSH] used for; latticework

Ūpoko - head, upper part, headings

Whakamārama - [MSH] explanation, scope note

Whakawhanaungatanga – the making and strengthening of relationships

Whānau - family, extended family

Wharenui - meeting house

Whenua – land

He Pitopito Kōrero | Notes
1. James Graham, "Nā Rangi Tāua, nā Tūānuku e Takoto Nei: Research Methodology Framed by Whakapapa." 


19. Helen Villers, (Faculty of Education, University of Auckland) email message to author E. Wilkinson, November 25th, 2014


27. Mere Berryman et al., "Ngā Kete Kōrero.”


32. ‘H’ represents ‘hihi’ (ray), from ‘te hihi o te rā’; alluding to the first shaft of light as day dawns. This metaphor for early childhood literacy encounters was given to us by Nanny Moana and Whaea Karen Liley of Te Puna Kōhingahunga, the Māori immersion preschool on campus.


37. The New Zealand Library and Information Association is now known as the Library and Information Association of New Zealand Aotearoa – Te Rau Herenga o Aotearoa, (LIANZA).


42. Māori Subject Headings Project, "Ngā Ūpoko Tukutuku | Māori Subject Headings."


44. Māori Subject Headings Project, "Ngā Ūpoko Tukutuku | Māori Subject Headings."


48. Māori Subject Headings Project, "Ngā Ūpoko Tukutuku | Māori Subject Headings."


53. Māori Subject Headings Project, "Ngā Ūpoko Tukutuku | Māori Subject Headings."

Questions and feedback are welcomed by Te Whakakaokao (Ngā Ūpoko Tukutuku Reo Māori Working Group) who can be contacted at reo@dia.govt.nz.


Paranihi, “Tū Te Ihī, tū Te Wehi, tū Te Wana”, 7.

<table>
<thead>
<tr>
<th>Reading Stage</th>
<th>Kete, Sublevels</th>
<th>Official Abbreviation</th>
<th>Library Call Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ata pō</strong></td>
<td>Harakeke A</td>
<td>KHa</td>
<td>499.3 K-Ha</td>
</tr>
<tr>
<td>Emergent</td>
<td>Harakeke E</td>
<td>KHe</td>
<td>499.3 K-He</td>
</tr>
<tr>
<td></td>
<td>Harakeke I</td>
<td>KHi</td>
<td>499.3 K-Hi</td>
</tr>
<tr>
<td><strong>Ata puao</strong></td>
<td>Kiekie A</td>
<td>KKa</td>
<td>499.3 K-Ka</td>
</tr>
<tr>
<td>Early</td>
<td>Kiekie E</td>
<td>KKe</td>
<td>499.3 K-Ke</td>
</tr>
<tr>
<td></td>
<td>Kiekie I</td>
<td>KKi</td>
<td>499.3 K-Ki</td>
</tr>
<tr>
<td><strong>Ata tū</strong></td>
<td>Pīngao A</td>
<td>KPa</td>
<td>499.3 K-Pa</td>
</tr>
<tr>
<td>Early Fluency</td>
<td>Pīngao E</td>
<td>KPe</td>
<td>499.3 K-Pe</td>
</tr>
<tr>
<td></td>
<td>Pīngao I</td>
<td>KPi</td>
<td>499.3 K-Pi</td>
</tr>
<tr>
<td></td>
<td>Pīngao O</td>
<td>KPo</td>
<td>499.3 K-Po</td>
</tr>
<tr>
<td><strong>Awatea</strong></td>
<td>Miro</td>
<td>M</td>
<td>499.3 K-RMiro</td>
</tr>
<tr>
<td>Fluency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>He pukapuka kaiako</strong></td>
<td></td>
<td></td>
<td>499.3 K-T</td>
</tr>
<tr>
<td>Teacher handbooks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 2. Series in Māori Junior Non-Fiction at the Sylvia Ashton-Warner Library

<table>
<thead>
<tr>
<th>Publication Type</th>
<th>Early childhood books</th>
<th>Key levelled reader series, associated audio material</th>
<th>Junior Journals, associated audio material</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audience</strong></td>
<td>Preschool children</td>
<td>Developing Readers (Harakeke, Kiekie, Pingao)</td>
<td>Fluent Readers (Miro)</td>
<td>Various</td>
</tr>
<tr>
<td><strong>Call no. cutter prefix</strong></td>
<td>499.3 H</td>
<td>499.3 K-</td>
<td>499.3</td>
<td>By topic</td>
</tr>
<tr>
<td><strong>Call no. example</strong></td>
<td>499.3 H TOK POU</td>
<td>499.3 K-Ke PUR EHI</td>
<td>499.3 KAW</td>
<td>Various</td>
</tr>
<tr>
<td><strong>Series Names</strong></td>
<td>Tōku Kōhanga</td>
<td>Ngā Kete Kōrero</td>
<td>Kawenga Kōrero</td>
<td>Ōku Wawata</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pīpī</td>
<td>He Kohikohinga</td>
<td>Pīpī Pangarau</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ara Pānui</td>
<td>Ngā Kōrero</td>
<td>Tūhono</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ara Pūreta</td>
<td>Te Tautoko</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>He Purapura</td>
<td>Whakawhiti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Te Huinga Raukura</td>
<td>Te Wharekura</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Amokura</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Atakura</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Kahukura</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Whatukura</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>