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## Theme 1.

# Māori language resources and Māori initiatives for teaching and learning te reo Māori

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### General introduction

As the most southerly member of the Polynesian languages, a sub-group of the widespread Austronesian language family (Harlow, 2007), te reo Māori has been the subject of substantial analysis, documentation, and analyses of its structure since first contact with Captain Cook in 1769 (Whaanga & Greensill, 2014). The history, trials and tribulations of te reo Māori in Aotearoa have been well documented (see, for example, Reedy, 2000; Spolsky, 2005; Waitangi Tribunal, 1986, 2011). The various reasons for the language's decline has been an area of ongoing debate and critique by academics, researchers, linguists, language activists, parliamentarians and Māori in recent times (see, for example, Bauer, 2008; Benton, 2015; Higgins, Rewi, & Olsen-Reeder, 2014; Rata, 2007; Winitana, 2011).

Like other Indigenous languages of the Pacific, te reo Māori was passed from one generation to another through a rich oral tradition and a large unwritten literature of waiata (songs), pūrākau (narratives) that contain philosophical thought, kupu whakarite (metaphor), poetry, whakataukī, whakatauākī and pepeha (proverbs), that described their epistemological constructs and cultural codes (McRae, 2017). Prior to the arrival of Pākehā/European, and for sometime after “Māori was the language of communication in the intimate and public domains of Māori life. It was also the major language of communication for economic, cultural and religious exchange between Māori and the first group of non-Māori” (Hohepa, 2015, p. 245).

The early period of the nineteenth century was a period of profound change for te reo Māori, when our oral tradition began to take on a written form (Whaanga & Greensill, 2014). During this period, the collection and documentation of oral tradition, lifestyle and customs of Māori were a preoccupation for many early European missionaries, colonial administrators, ethnographers, linguists, explorers and politicians including, George Grey (1853, 1857); William Colenso (1844, 1868, 1878, 1879, 1884); Percy Smith (1898, 1910; Smith, Whatahoro, Te Matorohanga, & Pohuhu, 1913, 1915); John White (1887-1890); William Williams (1844) and Elsdon Best (1922, 1923, 1924a & b, 1925, 1942). This period also saw the introduction of Western print literacy and the proliferation of niupepa Māori (Māori newspapers) with more than forty niupepa being produced by and for Māori on a range of social, political and religious issues (see, for example, Curnow, Hopa & McRae 2002, 2006; McRae, 2007).

However, with the signing of the Treaty of Waitangi in 1840 and the subsequent onslaught of Pākehā/European settlers in the later half of the nineteenth century, the Māori world, traditions, lifestyle, language, customs and the mechanisms and institutions for

transferring these oral traditions was unequivocally transformed (Orange, 2011; Reedy, 2000; Walker, 2004; Winitana, 2011). Conflict and war between the government and Māori over the transfer of Māori land to the settlers soon followed and lasted for nearly three decades from 1845 to 1872 (see, for example, Belich, 1986, 2001, 2007; Keenan, 2009; Ryan & Parham, 2002). As noted by Reedy (2000, p. 157):

In 1840 when the Māori people signed the Treaty of Waitangi with the British Crown, Māori was the main ethnic group, with a population numbering between 200,000 and 250,000. But by the turn of the century, swamped by land-hungry British colonists and the outbreak of wars and diseases, the Māori population had fallen to a low of 42,000.

The new government soon passed a series of policies and acts to establish an Eurocentric education system in order to move Māori speakers “from Māori monolingualism, through bilingualism, to being English monolinguals” (Spolsky, 2005, p. 69). The act of concerted assimilation, language domination, linguistic assimilation and hegemony was underway. This process began with the introduction of the Education Ordinance Act 1847 by the then Governor Sir George Grey. This Act outlined the principles for education in Aotearoa in which “religious education, industrial training, and the instruction in the English language shall form a necessary part of the system in such schools” (Simon & Smith, 2001, p. 160). The Native Schools Act 1867 then established primary schools in Māori communities whereby instructing them to teach in English and, later in 1877 the Education Act created a “national system of secular and compulsory primary schools” (Walker, 2016, p. 24). As Simon and Smith (2001, pp. 160-161) note:

While the state sought English language schooling for Māori to fulfil its assimilation agenda, Māori sought it at this stage in an effort to maintain their sovereignty and ensure they would not be disadvantaged by the growing dominance of Pākehā. There is no evidence that Māori wanted to cease using their own language. Rather it would appear that they wished to become bilingual. Thus, in wanting to learn English they were seeking to extend and broaden their communication base by adding another language to their repertoire. The state, however, through the assimilation policy sought to eliminate Māori language and replace it with English.

This position is aptly described in the stance of the Director of Education, T. B. Strong, who stated that “the natural abandonment of the native tongue involves no loss to the Maori” (1931, p.193). By the turn of the twentieth century the majority of Māori still spoke te reo Māori with a steady shift towards bilingualism. This situation rapidly changed in the 1930s and following the Second World War, which resulted in rapid technological growth, development and the mass exodus of Māori from their rural strongholds to larger

urban cities in response to an increased demand for industrial labour (Chrisp, 2005). This together with the racial amalgamation, assimilation and integration policies of subsequent governments, such as the 'pepper potting' of the Māori urban population to prevent residential concentrations (Walker, 2004), assisted in the rapid decline in the proficiency and use of te reo Māori as a medium of everyday communication. By the mid-1970s, the perilous situation of te reo Māori was confirmed by Richard Benton's research (1979, 1997), noting that:

Approximately half the Maori population is under the age of 15 years, but in our sample, at least, only 15% of this age group were able to speak Maori. On the other hand, those aged 45 and over, only 12% of the total Maori population, accounted for 38% of all the Maori speakers (1979, pp. 23-24).

For the first time, statistical evidence on the critical state of the language had been collected revealing the serious nature of affairs. It may be argued that the government's policies of assimilation, language domination, linguistic assimilation and hegemony had run its course culminating in the degeneration and loss of Māori cultural norms, collectivism, language and knowledge systems (Walker, 2004).

Spurred on by the disastrous state of affairs and inspired by the worldwide civil rights movement in the 1960s, a series of Māori-led campaigns, petitions, claims and initiatives were embarked upon by Māori to bring the language back from the brink of death. These protests and petitions in the 70s and early 80s set the scene for unprecedented changes in the educational settings in Aotearoa (Te Rito, 2008). Led by Māori activist groups like Ngā Tamatoa, Te Reo Māori Society, and the Wellington Māori Language Commission (Harris, 2004), the initial protests were founded "on the failure of the government to honour the Treaty of Waitangi, which guaranteed the recognition of Māori rights and protection of taonga (treasures), including te reo Māori" (Whaanga & Greensill, 2014, p. 10). The Te Reo Māori Petition, containing more than 30,000 signatures, was presented to parliament on the 14th September 1972. This event later resulted in the establishment of Māori Language Day, Māori Language Week, and in the official recognition of te reo Māori by the New Zealand government through the enactment of the Māori Language Act of 1987.

In the educational sector, Māori communities "were so concerned with the loss of Māori language, knowledge and culture that they took matters into their own hands and set up their own learning institutions at pre-school, elementary school, secondary school and tertiary levels" (Smith, 2003, pp. 6-7). This began with the first bilingual school in Ruatoki in 1978, followed by Kōhanga Reo in 1982, Kura Kaupapa Māori in 1985 and the establishment of Te Wānanga o Raukawa in Ōtaki in 1981, the first of many Wānanga Māori (see Winitana, 2011).

While significant gains have been made over the past 50 years, te reo Māori remains at risk, with the percentage of te reo Māori speakers declining from 25% to 21% between

2011 and 2013 (Statistics New Zealand, 2013). With the recent establishment of Te Mātāwai, a lead organisation tasked with spearheading te reo Māori revitalisation on behalf of iwi and Māori under Te Ture mō te Reo Māori 2016 (The Māori Language Act 2016) (Te Puni Kōkiri, 2017), there is now provision for a more balanced responsibility for te reo Māori between the Crown, iwi and Māori, and reo stakeholders. Consisting of 13 members (seven appointed by iwi; four appointed by reo tukutuku (Māori language stakeholder) organisations; and two appointed by the Minister for Māori Development), Te Mātāwai will play a significant leadership role in "promoting the health and well-being of the Māori language for iwi and Māori, . . . [and] support, inform, and influence the Crown's initiatives in protecting, promoting, and revitalising the Māori language" (Te Puni Kōkiri, 2017).

This short introduction of the history of te reo Māori has highlighted the winds of change which have blown over Aotearoa since the arrival of Pākehā/European settlers. Sadly, the decline of Indigenous languages throughout the world follows a similar path, driven by globalisation and a massive demographic shift towards linguistic and cultural homogeneity (Whaley, 2003). For the contributors to this section, the extinction of te reo Māori is not an option. Each author is committed to the ongoing vitality of te reo Māori and its longevity for future generations. Enter new technology! With the advances made in ICT and digital technology over the past two decades, further opportunities now exist in this burgeoning sphere for Indigenous language revitalisation and regeneration. In Aotearoa, a variety of online tools and other electronic resources have been harnessed to provide new domains for the use of te reo Māori and, with those domains, new possibilities for teachers and learners of the language. In the chapters that follow, the different authors describe a range of initiatives and resources which they have designed or implemented to enhance the availability and breadth of Māori language resources that can be ultimately used in the teaching and learning of te reo Māori through digital technology.

The first paper (*Māori Language Interfaces*) by Te Taka Keegan discusses the relevance, usability and significance of language interfaces alongside the roles and ramifications for te reo Māori. Here he poses a thought-provoking but rather important question that many of us who have worked in ICT have often asked ourselves: 'Why would we want to create software that has an interface in te reo Māori?'

The second paper (*A Translation of Moodle into Te Reo Māori*) by Hōri Manuirangi is an assessment of the processes involved in the translation of the Learning Management System 'Moodle'. This paper provides valuable insight into the process implemented by university staff of Te Ratonga Whakamāori (Māori Translation Service) and the university's WCEL team (Waikato Centre of E-Learning). This research also gives a detailed account, from the perspective of the translators, supplemented with anecdotal student feedback and concluding with a review of results collected from automated Moodle analytical results.

The third paper follows on from the work of Manuirangi and a small team of dedicated te reo Māori teachers and translators that have spent the past decade providing language resources to this generation of te reo speakers and learners. In his paper (*Machine*

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*Translation for te reo Māori*), Keegan discusses the relevance and usefulness of machine translations systems for te reo Māori. Although there remains some work to be done to enable these systems to produce accurate translations, the overall outlook looks promising with more and more digitised language data being made available all the time.

There follows a number of pieces from our colleagues at Te Ipukarea - The National Māori Language Institute and the International Centre for Language Revitalisation. The first by Tania M. Ka'ai (*Te Whare Matihiko o Te Reo - digital tools for the revitalisation of te reo Māori*), describes Te Whare Matihiko o te Reo, a Ngā Pae o te Māramatanga funded research project comprising four interrelated digital projects. The first project, Tomokanga Rauemi Reo Māori, details the development of an online digital te reo Māori language portal/advanced search engine that will act as a National Māori Language Data Base Portal for te reo Māori resources such as publications, iwi radio, television programmes, community initiatives, websites and social media. The second project, Tāmata Toiere, describes how digital technology can be used to preserve language and cultural knowledge; in this case a collection of waiata and haka that have not been previously published. The third project is a Māori thesaurus called He Punakupu Taurite. Its function is to provide a comprehensive list of synonyms for the Māori words in the Te Aka Māori-English, English-Māori Dictionary. The final project, He Pātaka Kupu, outlines the digitisation and development of an app for He Pātaka Kupu – Te kai a te rangatira monolingual Māori language dictionary. Ka'ai's paper provides the reader with valuable insight into Te Ipukarea's multi-pronged project that uses digital technology to support the ongoing preservation and revitalisation of te reo Maori in order to advance our knowledge and expertise in te reo Māori.

The second paper by John C. Moorfield (*Te Whanake and Te Aka digital resources*), describes the development of the Te Whanake and Te Aka digital resources. It discusses the advantages of these types of resources, which resulted in the development of the Te Whanake Animations, Te Whanake Podcasts, Te Whanake TV and Tōku Reo websites. He also outlines the nature and development of the Te Aka Māori-English, English-Māori Dictionary online. He concludes by noting that these types of digital initiatives involve some significant costs to develop, and also require regular updates and maintenance, which incur further expenses.

The third paper by Dean Mahuta (*Building virtual language communities through social media – because we don't live the village life anymore*), explores the role of social media in creating, developing, and sustaining virtual language communities. He presents a compelling discussion of the importance of engaging and inhabiting these new digital spaces to increase the number of domains in which te reo Māori is the language of choice. He posits that these types of virtual spaces create connectivity across an ever expanding virtual village.

The next paper by Wahineata Smith (*Te Whanake animations: Development and implementation*), details her involvement and recollections as an original team member in the development and implementation of the Te Whanake animations. In this paper she

outlines the development of the Te Whanake Animations, the research team, characters, modules, movies, exercises and songs, which form the basis of these language resources.

The final paper in this section is by Karaitiana Taiuru (20 years of reflections using technology to compile Māori Language Dictionaries). In this paper he reflects on his involvement in the development and creation of te reo Māori word lists/dictionaries, and te reo Māori software, over the past 20 years. He provides insights on the variety of issues associated with this endeavour concluding that the impact of commercialisation, the numerous gatekeepers of mātauranga Māori and te reo Māori as well as a general fear of technology has seen te reo Māori development slow in the digital area.

## Conclusion

Although the new millennium brings with it new challenges and growing concerns regarding the survival of te reo Māori, it is hoped that the hard work undertaken by the many Māori and non-Māori in ICT, including the significant contributions made by each of the authors in the following chapters, will provide the impetus and foundational material for inspiration and stimulus for future generations. As highlighted by Keegan and Cunliffe (2014, pp. 386-387):

The younger generation today are growing up in a time of rapid technological change. While their parents may consider mobile phones, the internet, computers or even television as new technologies, as far as the younger generation is concerned, they have always existed. . . . These technologies are commonplace and ownership of and access to them is taken for granted by many young people . . . . Given young people's importance in language survival and the way in which their technology landscape has recently evolved, some serious questions need to be asked about how technology influences their attitudes towards and use of te reo Māori.

As pen, paper and literacy transformed the lives of our ancestors, so too will ICT for this and future generations.

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