

## Using ICT To Enhance Maori Language Teaching

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### Abstract

*Since the Maori Language Petition of 1972, the number of people speaking Maori, the indigenous language of New Zealand, has increased steadily after nearly dying out. Unsurprisingly, however, the quality of the language used by the new and youthful generations of speakers is in decline, as is the number of native-speakers. When Maori tribal radio station, Radio Kahungunu started up 21 years ago, its aim was to revitalize the Maori language. Native-speaking elders were taken into the radio station daily and their on-air sessions sound recorded. Today the station has over 2,000 such sound recordings in its archives.*

*The purposes of this paper are a) to describe a current research project utilizing 20 of these recordings as a resource for teaching the Maori language, and b) to show how ICT will be utilized to enhance both the research and the teaching processes. Each recording is about one hour long and features two elderly women conversing in Maori as part of a daily 9am-10am radio show. The two-year project is due for completion in August 2011 and is based at The University of Auckland. The lead presenter is Chairperson of Radio Kahungunu and principal investigator for the project while the co-presenter is an MA student attached to the project as a stipend-holder.*

*Specifically, the research objectives are to produce: a 'talking book' comprising the 20 digital recordings, transcriptions and translations; a vocabulary and linguistic analysis using Antconc Concordance software; and a template for a radio and/or online Maori language course using the two women's actual voices. Originally the intention was to publish a hard copy book and distribute it to tribal members along with a set of 20 CDs of the recordings or an MP3 player with the 20 recordings downloaded onto it. However, due to the high costs of achieving this, and in order to enable high accessibility to the resource by prospective learners, the completed book will be placed online, along with the associated recordings converted to MP3 files for downloading by learners. Hence learners will be able to listen to the recordings; read the Maori text; and refer to the translations, the annotated footnotes, and the vocabulary and linguistic analysis – through ICT applications.*

### 1. Introduction

The Maori language in Aotearoa (New Zealand) was identified as being in a perilous state in the mid 1970s through research by Dr Richard Benton of the New Zealand Council for Educational Research [1]. The convergence of Dr Benton's seminal research; the Maori Language Petition to the New Zealand Parliament of 1972; and the proactive struggles by Maori themselves to save their language has led to many developments. The language is now available in some capacity or other at all levels of the education system. The language is also broadcast via 20 tribal radio stations and the national Maori Television Service [2].

It is not surprising therefore, that a survey by Te Puni Kokiri (The Ministry for Maori Development) for the period 2001 to 2006 shows that the percentage of Maori adults who used Maori language as a significant language of communication with their pre-schoolers rose from 18% to 30% [3]. What such



surveys do not reveal, however, is that the quality of Maori language being spoken now has greatly diminished.

One of the contributing factors to this diminishing in the quality of the language nowadays is the rapid loss of the number of native speakers in households – particularly older folk. After World War II there was a great change in demographics which saw mass urbanization of the Maori population and the transformation of the Maori household from rural village-based extended families to urban nuclear families. This phenomenon had a decimating effect on the Maori language and culture as the native-speaking grandparents were more often than not left behind.

Consequently it is no real surprise today to find that many of the exemplars of Maori language in the radio and television media are youth who have learnt the Maori language as a second language. From these people, it is not uncommon to hear the use of poor grammar, euphony and pronunciation through the airwaves. One effect of this phenomenon is the perpetuation of such errors within the greater population.

It was due to the concerns over the diminishing language quality of such Maori language delivery that the research project outlined in this paper arose.

## **2. Description of a research project utilizing archival sound recordings for teaching the Maori language**

The project title is: ‘Kia areare ki ngā reo o ngā tīpuna: strengthening Rongomaiwahine-Kahungunu dialects through archival recordings’. The phrase in Maori means ‘Hearken/listen to the voices of our forebears’. The organisation funding the research is Nga Pae o te Maramatanga, a Centre of Research Excellence based at The University of Auckland, New Zealand. The project commenced in January 2009 and runs until August 2012.

The research project uses archival recordings of elderly native speakers of Maori language as its primary source of data. It is fortunate that when Radio Kahungunu commenced operations 21 years ago, the directors had the foresight to commence recording native speakers of the language with the realization that such speakers were dying out at an alarming rate and the day would come when such voices would become quite rare. It is fortunate too that great efforts were made to enhance the longevity of these recordings by digitizing the reel-to-reel and cassette recordings and storing them in a vault. Currently the station has commenced downloading the largely CD collection onto external drives for storage at other sites and potential lodging with the National Library of New Zealand.

The research project concentrates particularly on Maori elders. Their voices are the exemplars that we need to counter the ‘damage’ created by the youthful voices and to help ‘bring back’ the language of the ancestors of the Maori people. One particular advantage of the recordings selected for use for the project is that they are recordings of conversations, not monologues, narratives or speeches. It is for such natural conversational Maori that learners are yearning. For years they have learnt to read and write yet despite this, it is their conversational skills that are lacking.

The two broad research objectives are to produce a ‘talking book’ and to produce a template for a Maori language course using the actual voices of native speakers of the language. The proposal for funding was to publish a hard copy book and distribute it to tribal members along with a set of 20 CDs of the recordings.

Since the commencement of the project, there has been a major development in terms of utilizing the voice recordings for the teaching of the Maori language. It has been realized that the whole teaching process can be enhanced by the use of ICT. In terms of dissemination, this is a major departure to what was proposed in the original research proposal.

## 2.1 Production of a 'talking book' as a learning resource

The primary research objective is to produce a hard copy 'talking book'. Essentially, a 'talking book' is a set of written texts with accompanying sound recordings. The research material has been selected from a collection of over 2000 oral recordings of various elders from the Rongomaiwahine-Kahungunu region of Hawke's Bay and collected by the radio station from 1988 to today.

The focus is on twenty hour-long recordings from a radio show featuring two elderly native-speaking women conversing in the Maori language. The women, who passed away in recent years, were Apikara Rarere and Irirangi Robin. The former of the two women hosted a regular Monday to Friday radio show featuring Maori elders who came into the studio on a rostered basis. The original intention was to focus on 15 different elders and to make a shallow but broad comparative study to highlight differing dialectal variations from across the tribal region. It was decided in retrospect, however, to make a more in-depth study of just these two particular women. One reason was that the radio station had plentiful recordings of the pair – hence providing the researchers with a large sample and corpus of material for processing and analysis. Another reason was because their language was regarded as being particularly high in quality and rich in terms of figures of speech, idiomatic sayings and so on.

Outlined below is the research process proposed for the duration of the 2 year 8 month project:

- select appropriate oral recordings
- develop brief biographies of the two subjects
- transcribe 20 oral recordings
- provide footnoted annotations and explanations
- create a master copy of a 'talking book'
- analyse the transcriptions and list common verbs, nouns, idioms, dialectal features etc using Antconc Concordance software,
- translate the transcriptions into English, and
- design a template for a radio course using the material.

On completion of the project, the beneficiaries will gain access to oral recordings with transcriptions that will enable them to read along with the recordings and so ideally improve their pronunciation and euphony. The provision of translations into English will enable learners to match up the spoken Maori word, the written Maori text, and the English translation. Consequently, the integration of the functions of language – listening, reading, speaking and writing will be activated and in doing so, will ideally contribute to the accelerated improvement in the Maori language skills of learners.

Furthermore, the close analysis will enable the students to listen with a more critical ear and read with a more critical eye. A particular focus in the analysis phase is to identify and resurrect idiomatic sayings based on the premise that it is these expressions that are the first victims of language loss, as compared to narrative statements for example. Another focus of the analysis is on maintaining local dialects. The desired end-result is that there will be a vast improvement in the quality of Maori language being used by Maori people today and in the future.

As mentioned earlier, since the commencement of the project, it has been realized that the whole teaching and learning process can be enhanced by the use of ICT. It is now intended that the 'talking book' inclusive of MP3 files of the full hour-long recordings be placed online.

## 2.2 Production of a template for a radio course using the research data

The secondary research objective is to produce a template for a radio Maori language course using the material processed during the research project. A template for such a course already exists. The short name for the course was 'Korokoro Kiwaha' and it was offered over a 4-5 year period until 2005 [4]. It was designed and produced by Radio Kahungunu in conjunction with the local polytechnic now known as EIT Hawke's Bay. It was then produced in studio by the radio station and distributed to other Maori radio stations through the Maori radio network via the internet. From there, it was re-broadcast by the respective regional Maori radio stations through the airwaves and picked up by listeners through radios in their homes. However, the voices used in the course were those of actors and the words they spoke were simulated conversations written by a scriptwriter.

When Radio Kahungunu started up 21 years ago, the station relied upon reel-to-reel tape-recorders or cassette recorders for producing programmes. This was quite an unwieldy process. As computers came more into vogue, however, this task became exponentially easier. The actors, some of them second-language learners, learnt their lines and were recorded digitally into the computer. Using Cool Edit Pro software, it became possible to manipulate this recorded material at will in the production studio. This was a major breakthrough in programme production.

As part of the course design, actors reading their scripts in Maori language were recorded. A literal English language version was also recorded – showing how the sentences were constructed with the thought that this would assist language learners to construct Maori language sentences. Then a third version was recorded – a 'proper' English language version. All three versions appear in the student text book in three columns set side by side and in parallel with one another.

Then an instructor's voice was added. The instructor would instruct the listening students to repeat phrases – with the actors, for example, and after the actors. This process was really made quite easy using Cool Edit Pro. A sentence or paragraph of spoken script could simply be copied and pasted in order to replay it, in the same manner that any written text could be copied and pasted. For a clearer idea of how this course was delivered, please refer to the poster presentation at this conference entitled 'A Radio Maori Language Course with ICT Applications'.

Again, as mentioned earlier, since the commencement of the project, it has been realized that the whole teaching and learning process can be enhanced by the use of ICT. It is envisaged that a similar approach to that described above will be made with the recorded conversations of our two elderly women, in the production of web-based courses. However the scripts will be the real life conversations between the two women not simulated scripts. The voices of second-language learners will be dispensed with. The rich voices and language used by the two women will bring true authenticity. The rise and fall of their voices, the use of short and long vowels, the use of filler words and non-verbal sounds will all be authentic – as will their subject matter. Again, software like Cool Edit Pro will be used to manipulate the material to our advantage. As with the simulated scripts of 'Korokoro Kiwaha' we will also be able to replay phrases, sentences or paragraphs – instructing the listeners to listen to the speakers, repeat along with the speakers, and then repeat after the speakers. In essence then, the voices of our forebears will be literally brought back into our households in lieu of the voices of our own familial grandparents of yesteryear.

Once the web-bound courses have been designed and produced in the studio, they can also be delivered by radio as well as online. For the course to be most effective, students will need to have access to a textbook that they can actually view. With 'Korokoro Kiwaha' a hard copy text book was provided to those students who actually enrolled. In 2003 there were in excess of 7,000 enrolments meaning we required at least 7,000 hard copy textbooks. Nowadays, however, such a book and the radio lessons can be placed online.

#### 4. Conclusion

The original research proposal to Nga Pae o te Maramatanga at The University of Auckland for funding was to publish a hard copy book and distribute it to tribal members along with a set of 20 CDs of the recordings. This data would be used to design and produce a Maori language course like 'Korokoro Kiwaha' to be delivered by radio. The latter realization that the whole teaching process can be enhanced by the use of ICT has presented the researchers with a major opportunity indeed.

By placing the 'talking book' online complete with full hour-long recordings as MP3 files; and by placing an actual Maori language course online; increases accessibility to this most sought after resource exponentially. This development is an unexpected bonus for the researchers and for the Maori language seeking beneficiaries. The replication costs for an unknown quantity of books and 20 CD sets of recordings are potentially incredible. On the other hand, an online publication and online MP3 files are not constrained by numbers of copies. The placement of the completed resource package online creates huge cost savings and avoids the other major challenge of the efficient distribution of hard copies along with the associated administrative costs.

Consequently anyone anywhere will be able to potentially access the online resource – whether in New Zealand or as far away as Italy. People can learn the language from the mouths of our two native speaking elderly women from just about anywhere in the world. And any number of people can do this. Individuals can access it at times to suit their individual circumstances. They need not travel anywhere but learn in the comfort of their own homes and at their own pace. They can replay the recordings at their own discretion. A language teacher is not required. What is required is a computer with a good sound system and a student with high motivation to learn the Maori language.

Hence through ICT applications of these recordings of elders from the Rongomaiwahine-Kahungunu tribal region, the learning process for potential students of Maori language will be hugely enhanced.

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