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# A Mobile Game World for Māori Language Learning

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## **Abstract**

This project involves the research, development and evaluation of a mobile assisted language learning tool that teaches some aspects of the Māori language within a virtual game world. The Māori language has been going through a process of rejuvenation since the mid-1900s. A wide range of multimedia resources have been created to support the process of language rejuvenation and there have been some effective digital resources created. Despite the ubiquity of modern games, computer games are a form of media that is under-represented in the wealth of Māori language resources and there are only a small handful of existing software tools for Māori language learning, of which few are game based.

There is growing interest in the application of modern game mechanics to other areas; popularly termed as gamification. This project aims to use the more dynamic features of modern games within a simulated game world to structure Māori language learning experiences. While globally there have been many computer assisted language learning tools and there is some research on virtual worlds and language learning, there have been few language learning tools developed within purpose built simulated game worlds.

The project is structured around the Design Science Research Process in which short iterative design cycles are applied to the development phase with prototypes being developed and tested with teachers, students and academics as design partners. The implementation of techniques in human centred design ensures that design partners are involved in the whole design and research process. In practice this involved testing early prototypes with educators then subsequently whole classes of students. In between testing the software was redeveloped based on the observations and feedback collected.

Classroom observations during the iterative development cycle showed the tool was both engaging and effective for vocabulary learning. Knowledge was generated about how a wide range of game mechanics can be used in a game world to structure mobile, Māori language learning experiences. The quantitative evaluation showed that students were able to learn vocabulary over a short time using the tool.

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## Contents

<b>1. Introduction</b>	<b>1</b>
1.1 Overview	1
1.2 The Importance of Māori Language Learning	2
1.2.1 The Role of Media and New Media in Māori Language Rejuvenation	2
1.2.2 The goal of this project	3
1.2.3 Research Method	3
1.3 Research Questions	4
1.4 Background of Māori Language Revitalisation	4
1.4.1 Māori Language Teaching and Learning	4
1.5 Māori Content and Multimedia	5
1.5.1 Interactive Media and Māori Language Content	6
1.5.2 Māori Content in Video Games to Date	7
1.6 Māori Language Software Tools	8
1.6.1 Web-based resources	9
1.6.2 Mobile Māori Language Learning Applications	10
1.6.3 Other Māori Language Learning Software	13
<b>2. Literature Review</b>	<b>15</b>
2.1 Structure of Literature Review	15
2.2 Detailed Research on Māori Language Learning and Mobile Devices	15
2.3 Indigenous Language Learning and Technology	18
2.4 Quantitative Analysis of Indigenous Mobile Language Apps	21
2.5 Indigenous Mobile Language Learning Software and Resourcing	24
2.6 Computer Assisted Language Learning	25
2.7 Mobile Assisted Language Learning	26
2.8 Wider Language Learning Theory in Relation to the Project	28
2.9 Gamification and Game Mechanics	29
2.9.1 The Evaluation of Gamification in Educational Software	31
2.9.2 Gamification and Instructional Design	32
2.9.3 Game theory and Flow Channel	34
2.10 Game Based and Simulation Learning	36

2.10.1	Learning Games that use virtual worlds	37
2.10.2	Virtual Worlds and CALL	38
2.10.3	Purpose Built Language Learning Tools That Use Virtual Worlds	39
2.11	Findings of Literature Review	40
<b>3.</b>	<b>Methodology</b>	<b>41</b>
3.1	Outline of Methodology	41
3.2	Design Research Models	41
3.2.1	The Most Suitable Design Research Framework for the Current Project	42
3.2.2	Design Science Research Applied in the Current Project	43
3.2.3	Design Science Research, Design Science and Design Practise	44
3.2.4	The Value of the Design Science Research Process	44
3.3	Phases of the Design Science Research Process Operationalised in the Current Project	45
3.3.1	Awareness of Problem	45
3.3.2	Suggestion	46
3.3.3	Development	46
3.3.4	Evaluation	47
3.3.5	Conclusion	48
3.3.6	Similarities Between Design Science Research and Iterative Design Cycles	48
3.4	Codesign	48
3.5	Game Design Tools	52
3.5.1	App development tools for Android and iPhone	53
3.5.2	The Use of the SDK and the Current Project	56
3.5.3	Additional Software that Supports the Creation of the App	56
3.5.4	Defining the Nature of the Game World	57
3.6	Ethics	58
3.7	Language Learning Tasks and Theory in the Research	59
3.7.1	Operationalising Language Learning Theory in Research	59
3.7.2	Caleb Gattegno's 'The Silent Way' and Te Ataarangi	61
3.7.3	Theoretical Basis of The Silent Way and Te Ataarangi	62
3.7.4	Determining an Area of Language Learning to Focus on	63

3.7.5	Nature and Theory of Language Learning Tasks	65
3.7.6	Teaching Sentences Within the Software Tool	66
3.7.7	Summary of Language Learning Theory in the Project	68
<b>4.</b>	<b>Design and Development Phase</b>	<b>69</b>
4.1	Low-Tech Prototyping	69
4.2	The Development Phase and Iterative Design Cycles	69
4.2.1	Iterative Design	69
4.3	Nature of Iterative Design Cycles	70
4.3.1	Summarisations of Iterative Design Cycles	72
4.4	Summary of Iterative Design Cycles	84
4.5	Game Mechanics and the Game World	85
4.5.1	The Game World	85
4.5.2	Scaffolded memorisation	86
4.5.3	Stars, achievements and bonuses developed within the iterative development cycle	87
4.5.4	Achievements and bonuses implemented after iterative development	88
4.5.5	Feedback intervals and exponential progress markers	90
4.5.6	Different Dialects	91
4.5.7	Culturally and Nationally Significant Game Content	92
4.6	Quantitative/evaluative pre-testing and post-testing	94
4.7	Final Outcome of Development Cycles and Quantitative Testing	99
<b>5.</b>	<b>Discussion</b>	<b>101</b>
5.1	The Effectiveness of the Learning Tool	101
5.2	Knowledge Generated from the Design Science Research Process	102
5.3	Structured Language Learning Within Virtual Worlds	102
5.4	Knowledge Creation through Artefact Development	104
<b>6.</b>	<b>Conclusion</b>	<b>106</b>
6.1	Limitations Further Research	107
6.2	Future Opportunities for Thorough Quantitative Evaluation	108
6.3	General Further Research in the Field	109
	References	110