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Can I Tell You Something?

Exploring the Instruction and Reading Comprehension of Year Three and Year Four Students in Kura Kaupapa Māori Contexts

Noema Toia Williams

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education, The University of Auckland, 2011
Abstract
Reading comprehension instruction and learning in the Kura Kaupapa Māori context is the subject of the thesis. Relatively little is known about the development of reading comprehension for students schooled in other than the English-language mainstream context in New Zealand. Little is also known about comprehension instruction in Māori language immersion contexts.

The research explored three major themes in a cross-section longitudinal study of cohorts of Year three and Year four students in Kura Kaupapa Māori. The exploration included; the general patterns of student reading comprehension; the general patterns of comprehension instruction and the associated Māori language use between teachers and students during comprehension instruction; and, the effect or effects of comprehension instruction intervention in Kura Kaupapa Māori.

The teacher and student data was collected over two-years that comprised a one-year baseline followed by a one-year intervention phase. Eight teachers (kaiako), fifty-four Year three students (tauira), and fifty-three Year four students were the participants. They were from different Kura Kaupapa Māori in the Tai Tokerau - North Auckland region. Many students and their teachers were second language learners.

Findings include: that student reading comprehension patterns in five Kura Kaupapa Māori show similarities to those found in other New Zealand studies conducted in similar contexts, that is, bilingual and/ or full immersion units and classes; that consistent with both New Zealand and international studies, student comprehension is sensitive to explicit comprehension instruction; and, that planned evidence-based strategic intervention can create a positive shift in both teacher instruction and student comprehension.
Acknowledgements

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The research fieldwork would not have been possible without the assistance of the Boards of Trustees, principals, teachers, students and whānau of the Kura Kaupapa Māori involved. Your communities and our children give substance to the work. I am indebted to you all for your inspiration. E mihi kau ana ki ngā whānau whānui o ngā Kura, ngā marae, ngā hapū, koutou ngā iwi o te Tai Tokerau puta noa.

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Chapter 1
Part 1

“...but somehow I had been wallowing illicitly in the daily papers” (Lee, 1960).

1.1.0 About the Writer

Ko Whakataha te maunga.  
The mountain is Whakataha.

Ko Waitangi te awa.  
The river is Waitangi.

Ko Tauwhara te marae.  
The court of encounter is Tauwhara.

Ko Ngātokimatawhaorua te waka.  
The canoe is Ngātokimatawhaorua.

Ko Ngaitāwake ki te tuawhenua te hapū.  
The sub-tribe is Ngaitāwake of the interior.

Ko Ngāpuhi te iwi.  
The tribe is Ngāpuhi.

My identity is shaped by my genealogical links to my ancestors and the land. The opening pepeha (recitation) identifies the range of my homeland, its location and the people who dwell within its boundaries. Pepeha contain the fragments of code from which the comprehension of my story begins. I am the mountain, the river, the canoe, the sub-tribe and the tribe. In turn they are me. Subsequent to the death of my grandmother I was one of the first-born grandchildren and was named to commemorate the occasion. I was whāngai – literally, the feeding child, of my matua tūpuna (grandfather, Pāpā), and his family. I am a child of the extended whānau (family).

Pāpā was my first reading teacher. Our home was not flooded with books. Preschool reading material consisted of a steady diet of: The New Zealand Herald, a daily provincial newspaper; the pink-covered editions of The New Zealand Weekly News, which summarised the major national events of the week; the Northern News, the weekly local newspaper; and, The New Zealand Agricultural and Horticultural Journal, a national periodical for farmers. When Pāpā read the newspaper, I pulled out my pages. I would point to words and they were duly fed back in the language of the text – English. Our language of communication was te reo Māori (the Māori language). A special treat was to be the first to
read’ the Journal complete with its new, inky perfume, all on my own. When Pāpā read, I read too.

When Pāpā wrote, I wrote. Each day he attended to his diary and I, with charcoal from the open fire, wrote on the walls! Layer upon layer of printed text, embellished with the handwritten contributions of tamariki (children) embraced one at the waking hour, and again, at the sleepy closing of the day. The walls were my slate. When the ‘wall paper’ became discoloured by the smoke and fumes of the open fire our lives were further enriched by another layer of newspaper – a repository of a generation of child ramblings. I learned to write English words in a Māori-speaking world. I knew instinctively that I could read and write English before I went to school. The origins of the thesis began back then, in humble family dwellings, where one was surrounded by the rich world of print on walls.

1.1.1 The Title of the Thesis

Can I Tell You Something? Exploring the instruction and reading comprehension of Year three and Year four students in Māori-medium contexts.

It is not unusual for students to transfer from urban schools to rural schools. The transfer from a large urban school to a small rural Kura Kaupapa Māori\(^1\), however, is more unusual. One such student (tauira) attended one of the participating Kura (school).

After a description of the comprehension assessment process by the researcher (kairangahau) the student began reading the Māori language text aloud with the self-confidence of an independent, fluent reader. On completion of the reading, and prior to addressing the first comprehension question, the student turned to the researcher and with the same self assurance demonstrated in the reading said in English:

**Tauira:** Whaea (female elder), can I tell you something?

**Kairangahau:** Ae. Whakamāramatia mai. (Certainly. Tell me).

---

\(^1\) Kura Kaupapa Māori (Māori language immersion) schools were officially designated with the approval of the Minister of Education under Section 155, of the Education Act, 1989
**Tauira:** You know, Whaea. I didn’t understand a thing!

The exchange informed the spirit of the study and the title of the thesis.

### 1.1.2 The Geographical Parameters

Mountains are some of the first indicators to a Māori person’s connection to the land and to other Māori people. Nestled below the mountains are papakainga (literally, the home lands, papa) on which villages (kainga) have survived, if only by name, for generations and where Kura in the Tai Tokerau (the northern tide, province) may be situated. Some Kura can be found in isolated rural areas whilst others are located in the more populated country towns.

The study took place in the Tai Tokerau region of North Auckland, Aotearoa/New Zealand beneath the mountains of Maungataniwha in the north, Whiria in the west, Pūtahi at the centre, Whakaaraara in the east, and Parahaki in the south (Figure 1).

![Figure 1: Te Tai Tokerau. The mountains in the research study](image)
The fieldwork began in February 2004 and was completed in November 2005. Many of the teachers and almost all their students were second-language learners of the Māori language. Although the thesis reports on the research conducted for a discrete study, the research methodology drew on some aspects of two other studies (Hohepa, Williams, & Barber, 2006; Lai et al., 2003).

_Can I Tell You Something_ was something of a comprehension reconnaissance – unknown ground. The language of instruction was te reo Māori (the Māori language), which as well as the indigenous language is along with English and New Zealand Sign Language, an official language of Aotearoa/New Zealand. The study explored comprehension instruction and learning in full immersion, Māori language schooling contexts.

The objective of the fieldwork was to explore the effect or some of the effects of comprehension instruction on both student achievement and teacher instruction, compared to baseline data, in three themes.

### 1.1.3 The Themes

Three integrated themes converged to provide impetus to the study. The intention of the first theme was to set about establishing a baseline profile of student comprehension achievement. Data gathered thereafter could then be compared against the baseline profiles for the two cohorts of Year three participants and the two cohorts of Year four participants. The intention of the second theme was to gain an increased understanding of the relationship between teacher instruction – based on pre-lesson interviews, actual classroom observations, and post-lesson interviews with teachers, and student achievement in reading comprehension within the observed environment. The intention of the third theme was to explore the effect, or effects, of strategic comprehension instructional intervention.

**Theme One: Profiling Student Reading Comprehension Achievement**

Profiling student achievement in reading comprehension in te reo Māori contexts was an important consideration for the study for two reasons. In Aotearoa/ New Zealand there is relatively little empirical evidence about how students manage the understanding of texts written in Māori when many of the students are also second-
language learners of Māori; and, whilst educationalists and researchers are gaining more understanding in the field comparatively little is also known about understanding then determining what instruction may or may not be effective or appropriate. Gathering student achievement data for reading comprehension using Māori as the language of instruction is a fairly recent research activity in Aotearoa/New Zealand (Rau, 1998a; Rau, 2001; Rau & Berryman, 1998; Rau, Whiu, Thomson, Glynn, & Milroy, 2001). Generally, reading comprehension instruction in New Zealand schools is an integrated part of the reading programme and reading assessment process (Phillips, McNaughton, & MacDonald, 2001b).

Questions generated by the first theme were complex – ranging from the availability of comprehension-specific assessments or comprehension diagnostic instruments from which to build student profiles in Kura contexts, to student and teacher language use preferences when articulating understanding of texts written in Māori. The key question posed by the first theme was: What are the patterns of comprehension achievement for Year three and Year four students in Kura Kaupapa Māori settings?

The first theme drew on data from student results collected in fieldwork from the specific Kura in Tai Tokerau. The exploration, which began in February 2004, consisted of a one-year baseline phase which was followed by a one-year intervention which concluded in November 2005. To gain, then add to understanding and knowledge about student achievement in reading comprehension in Kura contexts was a primary objective of the first theme. A cross section longitudinal design was used – with quantitative and qualitative data collected at four time-points during the study.

**Theme Two: Exploring Comprehension Instruction**

Learning about comprehension instruction, in part, is to learn about the magic of the multiplicity of the meanings of words in print. Reading was the writer’s pre-school dream, and remains the dream of many adults who have yet to unlock its secrets. Learning about letters in order to decipher words, plus a myriad of other skills, to obtain the gist from texts is often the making or the shattering of the dream for many. What the classroom teacher learns very early in a teaching career is
aspects of teaching practice that do not work (and children have not got it). This can often be the most agonising point of many carefully planned lessons be those lessons in reading, mathematics or physics. But teachers are not alone. Much of what is now known about comprehension research over the past twenty years was motivated by this same lesson – we learn most from what we now know is not happening. So how do comprehension teachers in Kura bounce back?

Theme two consisted of two related sub-themes – comprehension instruction and learning and te reo Māori use-patterns within such instruction.

Questions generated by theme two were associated with managing comprehension instruction within the parameters of the reading programme such as time, text selection, learning about and developing theories, and instructional approach preferences. Exploring comprehension instruction underpinned the link to the student profiling objectives of the first theme, and provided a preliminary exploration into the Māori language use patterns of both student and teacher during instruction time. Research that explores the Māori language use-patterns of teachers in the classroom has been conducted (McNaughton, MacDonald, Barber et al., 2004) and was of interest to the study in terms of its impact on teaching and learning comprehension. For instance, language exchanges between teacher and student (as well as student-teacher and student-student) during the lesson, and what such exchanges could tell us about making sense of the comprehension process.

The first theme’s profiling of student comprehension achievement was likely to provide some understanding about some of the Māori language preferences used by students and teachers to, for example, describe and explain understanding of information contained in Māori language texts.

The key question posed by the second theme was: How do teachers teach comprehension in Kura Kaupapa Māori contexts when using non-fiction Māori language texts?

The instruction phase was explored through pre-teaching interviews, classroom teaching video observations, and post-teaching interviews. Questions were posed to
assist with identifying the strategies teachers knew about, what teachers adopted and/or adapted to their classroom situation, and how teachers evaluated the effect or effects of the strategies with regard to the development of student comprehension using non-fiction Māori language texts.

Theme two was examined in professional development intervention work carried out with teachers over two teaching sessions (one at the beginning of the 2004 school year, and one towards the end of the 2004 school year) in the one-year baseline phase, followed by two teaching sessions (one at the beginning of the 2005 school year, and one towards the end of the 2005 school year) in the one-year intervention phase. Theme two focused on Kura teachers as practising professionals and managers of learning in their classrooms.

*Theme Three: Exploring Intervention in Comprehension Instruction*

The theme three explored the effect, or effects, of professional development intervention in comprehension instruction on teachers and students. The intervention consisted of: data collection and analysis, data report back sessions, and kaiako (teacher) workshop sessions.

*Data Report-back Sessions*

Data report-back sessions for the baseline phase (Time 1 and Time 2) were conducted in Kura through July and August 2004. Five focus questions (what is non-fiction text; how can we teach children to comprehend non-fiction texts; how can we teach children to work out what words mean in context; what are effective ways to focus on vocabulary when teaching reading; and, how do we teach predicting and inferencing from text) were discussed by teachers and researchers as the results were presented. Such an approach to reporting baseline data not only formed a part of the intervention process (and gave teachers the opportunity to think on and critique their own literacy practices) but also reflects or enacts the Kaupapa Māori view of sharing and discussing information and may have had the effect of changing some teacher practice in questioning, vocabulary and feedback exchanges in the classroom. The final data report back session for Time 1 and Time 2 was conducted in a workshop session in January 2005.
Data report back sessions for the intervention phase (Time 3 and Time 4) were carried out in four Kura in August 2005. The report back session for the fifth Kura was conducted in October 2005.

*Kaiako Workshop Sessions*

A one day teacher professional development workshop content consisted of the report back of results from the baseline, and discussion sessions: exploring best practice principles which have been applied in both the New Zealand (Alton-Lee, 2003; R. Bishop, Berryman, & Richardson, 2001), and international contexts (Block & Pressley, 2003; Guthrie, 1981b); and, exploring comprehension processes and instructional strategies found to be effective in classrooms. Teachers spoke about the comprehension strategies they had used – with the benefit of videotaped classroom observations. A balance between patterns of teaching practice identified from classroom observation data at the baseline phase, and practising activities aimed at increasing instructional density was an area of focus for the intervention phase – for example, teachers might have focused on surface text and surface meanings of texts level in observations of teaching, and the workshop activities could add to the focus on text meaning by using vocabulary, prediction and inferencing activities with which teachers were familiar alongside practising new or modified activities in the workshop using texts that were used in reading instruction.

If the study had brought about comprehension awareness, teachers would have the opportunity in the workshop to discuss with colleagues what they had learned.

Questions generated by theme three were linked to actions prior to, during, and after teaching instruction occurred. What comprehension strategies are available? How did teachers find out about the strategies? What does strategic comprehension intervention in full immersion Māori language contexts look like in action? How are strategies specific to comprehension instruction applied within the context of Kura classrooms?

A key question posed by the third theme was: In Kura Kaupapa Māori what development of professional knowledge about comprehension occurs before, during
and after instruction? The sub-question was: What were the effects on kaiako and tauira?

A cross section longitudinal design was used. The collection of quantitative and qualitative data occurred at the four specified time points during the study.

The three themes and their related key questions set the parameters for the study.

1.1.4 The Limitations of the Study

The study was small scale – limited to five Kura Kaupapa Māori (from a total of nine) and fewer than 190 students from the Tai Tokerau – North Auckland province. The schools, students or teacher participants selected for the fieldwork are deemed to be fully representative of students or teachers in Kura throughout the Tai Tokerau or Aotearoa/ New Zealand.

1.1.5 The Purpose of the Study

The purpose of the study was to explore comprehension teaching and learning in Māori immersion education contexts, namely Kura Kaupapa Māori.

Some approaches to defining comprehension have focused on what it is that needs instructing. The study is important because apart from teacher-generated post-reading questions relatively little is known about the process of comprehension instruction in Māori immersion classrooms. What is generally assumed is that instructional strategies which could be applied in most English-speaking classrooms might also be replicated in non-English language contexts. In New Zealand, a society dominated by the English language, the instructional needs of many students from diverse cultural backgrounds have not always been adequately met by the notion that what might work, particularly for reading and writing, in one educational context could necessarily work in another. Thus, through an exploration of commonalities and contrasts with other indigenous and western constructs the study could investigate ways in which comprehension instruction could be framed for teachers and students in Kura. The study acknowledges the selfless contribution of dedicated reading and reading comprehension educator and research teams throughout New Zealand and the international education community.
1.1.6 The Structure of the Thesis

The key questions for the study lead Chapter 1, Part II. The following review commences with a brief historical overview of events which have influenced comprehension instruction. Definitions of reading comprehension are explored, a working definition for the study is developed and forms the foundation on which the results are examined and the analysis to follow. Theoretical approaches, models of comprehension and assessments developed from such theories are explored. The review continues with an exploration into comprehension instruction, and instructional variables. The penultimate section of the review explores te reo Māori, its language community and the full immersion language context in which the teaching and learning of reading comprehension is positioned. The review concludes with a framework which forms the basis on which responses to the key questions for the study are presented.

Chapter 2 comprises the methodology and is divided into five sections as follows: the participants – Kura (schools), Tauira (students), and Kaiako (teachers); the comprehension assessment – the texts, the sub-tasks, the sub-task assessment criteria; teacher instruction, that is, pre-, in-class, and post-teaching at the baseline phase; the intervention, analysis of teacher exchanges; and, reporting to the Kura communities.

Chapter 3, in two parts, contains the quantitative results from the baseline and intervention phases with discussion for Year three (Part I) and Year four (Part II) students.

Chapter 4 contains the qualitative and quantitative results of teacher exchanges - kaiako discussion and interviews (Part I), kaiako classroom teaching observations (Part II), the Year three kaiako classroom teaching observation results (Part III), and, the Year four kaiako classroom observation results (Part IV).

Chapter 5 comprises the discussion for the study – aims, results, classroom practice and the relationships between these elements that assist children to find meaning from non-fiction texts in Kura Kaupapa Māori contexts.
1.1.7 The Findings

The study found,

- that student reading comprehension patterns in five Kura Kaupapa Māori show similar results to other New Zealand studies conducted in bilingual and/or full immersion units and classroom contexts;
- that consistent with both New Zealand and international studies student comprehension is sensitive to explicit comprehension instruction; and,
- that planned evidence-based strategic intervention can create a positive shift in both teacher instruction and student comprehension.

1.1.8 Definitions and Terms Used

Comprehension, reading comprehension

For the purposes of the thesis comprehension or reading comprehension is defined as,

‘te hanga, te whakamārama kōrero mai te pukapuka’ – ‘to shape, to elucidate the talk of books’ (p.24.).

The terms comprehension and reading comprehension within the context of the thesis have been used interchangeably.

Kura, Kura Kaupapa Māori

Kura or Kura Kaupapa Māori for the purposes of the thesis are defined as schools established under section 155 of the New Zealand Education (Te Aho Matua) Amendment Act 1999.

Section 155(2) states that “… The Minister has absolute discretion to refuse to establish a school under this section.” Section 155.3(A) states that “… te reo Māori (the Māori language) is the principal language of instruction”, and that “… the charter of the school requires the school to operate in accordance with Te Aho Matua (as defined in section 155A).”

Te Aho Matua

Te Aho Matua for the purposes of the thesis is defined in section 155A of the Education (Te Aho Matua) Amendment Act 1999 as “… a statement that sets out
an approach to teaching and learning that applies to schools designated under section 155.”

The official version of the Te Aho Matua statement is written in te reo Māori. The kaitiaki –literally, caretaker, is Te Rūnanga Nui o Ngā Kura Kaupapa Māori o Aotearoa (The High Council of the Kura Kaupapa Māori of Aotearoa/ New Zealand) – the body defined in legislation, and regarded as “… the most suitable to be responsible for determining the content of Te Aho Matua, and for ensuring that it is not changed to the detriment of Māori” (Section 155B Te kaitiaki o Te Aho Matua – Education (Te Aho Matua) Amendment Act, 1999: p.3).

Kura that participated in the study are Kura Te Aho Matua. It is important to note however, that not all Kura or Māori immersion schools in Aotearoa/ New Zealand are Te Aho Matua schools.

1.1.9 The Use of Māori Vocabulary
When new Māori vocabulary is introduced its meaning is explained with an English-language equivalent (in parenthesis) at first use. A glossary of Māori words is appended. The meanings given are appropriate to the study.

Part II
1.2.0 Introduction
In order to engage with, critique and be entertained by or gain knowledge from texts, understanding the context of the text is essential. Questions about comprehension may be answered in many different ways. For many children reading and understanding printed texts usually begins in the formal environment of the school reading programme.

Chapter 1, Part II continues with the reiteration of the key questions of the study. The review commences with three events which converged to continue to exert an influence, despite the passage of more than twenty years, on comprehension instruction to the present day. Definitions of reading comprehension are explored, and a working definition for the study is developed and forms the foundation on which the results are examined and the analysis to follow. The review continues
with an exploration into comprehension instruction, and instructional variables that have been found to make a difference to student reading comprehension. The penultimate section of the review explores reading comprehension and Māori language contexts - comprehension assessments, comprehension instruction, and comprehension intervention in Kura. The review concludes with a framework developed for the study and forms the basis on which responses to the key questions are presented.

1.2.1 The Key Questions
1.2.1(a) Question One
What are the patterns of achievement in comprehension for Year three and Year four students in Kura Kaupapa Māori settings?

The first question was explored through the range of comprehension measures used in Aotearoa/ New Zealand’s primary institutions and to their applicability at Year three and Year four in Kura Kaupapa Māori contexts. The specific concerns raised by the question related to what if there are none and a comprehension measure needs to be constructed. The thesis argues for the development of standardised diagnostic assessments of reading comprehension in te reo Māori for use in Kura Kaupapa Māori or Māori language immersion contexts.

1.2.1(b) Question Two
How do teachers teach comprehension in Kura Kaupapa Māori contexts when using non-fiction Māori language texts?

The second question calls for the description and analysis of patterns of how teachers teach comprehension in Kura Kaupapa Māori. The thesis suggests the position that teacher instruction is a key factor that makes a difference to student achievement in Kura contexts.

1.2.1(c) Question Three
In Kura Kaupapa Māori what development of professional knowledge about comprehension occurs before, during and after instruction?

The third question explores the notion that changes to teaching practice, may likely to occur through the provision of professional development-in-action in Kura
Kaupapa Māori context, and have effects on teachers and students. The thesis argues that professional development in Kura Kaupapa Māori contexts is more effective when teachers remain in Kura (with external expert guidance and learning as appropriate), with the teachers in control of what should occur in their development.

1.2.2 Comprehending the World of Words...

The rich world of books and print materials simply remain words on a page unless the reader learns how to connect text and meaning for text releases its power only after meaning has been extracted from it. For the reader, the search for meaning can be analogous to a skirmish between letters, sounds, words and sentences. Letters and sounds scuffle to create words, subjects and predicates contest grammatical expedience, and big and small ideas battle for ascendancy and the reader must make sense of it all. In schools comprehension has long been conceptualised as the notion that in order to measure a reader’s level of understanding of the text content the accepted protocol was to interrogate, interrogate and interrogate some more. But whilst comprehension is regarded as the main purpose of reading, at least getting the author’s intended message, a rather delicate balance is required between process and instruction, during which questions perform an important role.

1.2.3 The Passing Years...

The history of comprehension instruction has been relatively short. Between 1978 and 1981 three events occurred from which research dedicated to comprehension instruction began to emerge. First, Dolores Durkin (1978 -1979) released the findings of her comprehension research which concluded that there was too much testing but not enough teaching. At about the same time Kinstch and van Dijk (1978) published their theory of text comprehension, and Pearson and Johnson (1978) published *Teaching Comprehension* that explored comprehension instruction beyond the direct method of instruction. The third event was the release of Guthrie’s *Comprehension and Teaching: Research Reviews* (1981b) dedicated in its entirety to comprehension and its instruction.
1.2.4 Reading Comprehension

Comprehension as a definition is used in slightly different ways by different people. For example, the researcher has often discussed using the English language with whānau – family, what members think comprehension might be. Descriptions such as, ‘...understanding... what you read...’ or ‘...getting the meaning... out of writing...’ have been usual responses. Firstly, we have the writer (who employs text as the medium of communication) and secondly, the reader (who draws meaning from the words and the context used by the writer). Discussions with whānau surrounding the term ‘comprehension’ using te reo Māori, on the other hand, are revealing not so much for any perceived contrast but for the additional clarity of meaning. The terms ‘mārama’ (light, not dark; clear, of sight or sound; transparent; easy to understand, plain) or ‘whakamārama’ (make light, illuminate, elucidate, explain) emerge from almost all descriptions in conversation – the notion that comprehension is an intricate part of a process complete with its own shades of meaning.

The keyword entry ‘comprehension definitions’ in a Google™ search on the world-wide-web revealed over one million citations ranging from research to dictionary entries. If dictionaries provide maps to the lexicon of the day then Dolores Durkin’s concern, to teach comprehension as opposed to testing it, was far from being alleviated more than twenty years later. Comprehension is however, deemed a complex process and not easily captured in a single definition.

This section of the chapter explores comprehension definitions by Beimiller (1999); Sweet and Snow (2003); Block, Gambrell and Pressley (2004), and others (Kinstch, 1998; Guthrie and colleagues, 1981).

Beimiller’s (1999) definition accords with Durkin’s notion in that instruction is pivotal to comprehension. Instruction may consist of either teacher-directed questions or written, multiple-choice questions about texts students had read and were supposed to have understood. In studies conducted by Cazden (1981) in which a history of rich interaction or relevant lesson ‘talk’ (p.124) exchanges between teachers and students had occurred, improvements in comprehension and other literacy skills (for example, writing, language, interpretation, inferencing, and
expanded vocabulary) was evident. Such instruction is consistent with Vygotsky’s (Vygotsky, 1978) socio-constructivist theory of learning and development which views learning as the simultaneous process of development (and development as a simultaneous process in learning). Vygotsky theorised that with adult guidance a child’s level of potential development was greater than could be achieved by the child independently. Offering leading questions that link tasks to ideas presented in texts may comprise, according to Vygotskian theory, not only good indicators of learning and development relevant to comprehension but may also bring to bear student prior knowledge and knowledge about the world in many instructional and learning contexts. But Beimiller’s definition in practice can be considered an adult-dominated power relationship which contrasts with the guidance-type relationship advanced by Vygotsky.

Block, Gambrell and Pressley (2002) defined comprehension as the process of ‘acquiring meaning from written texts’ (p. 4) based on the textual content and context. The definition compared with that of Beimiller in terms of the requirement for the reader to describe understanding of a text. Both definitions require some form of interrogation. It is often at the point of interrogation that some intervention, usually adult, is important in developing comprehension functions which may possibly exist in a state of dormancy. In addition, Block, Gambrell and Pressley’s definition explores the notion that readers are independently required to construct meaning by means of the context described. The definition assumes that the reader has reached a level of maturation and skill in the meaning-making process in knowing how to get meaning, knowing how to verify meaning, and knowing how to construct meaning relevant to context.

Sweet and Snow’s (2003) definition of comprehension explores ‘the process of simultaneously extracting and constructing meaning’ (p.1) which highlights the significant role of the socio-cultural milieu from which the reader draws meaning which include attitude to reading, text preferences and what counts as literacy. The definition contrasts with the notions of instruction proposed by Beimiller (1999), and independent meaning-making by Block, Gambrell and Pressley (2002), and contends that text alone is insufficient as a ‘determinant of comprehension’ (p.1). However, the definitions converge on the major challenges faced by the reader such
as the taking and building meaning from text, a process which demands that readers figure out how print is transformed from letters into words, fashioned economically into accurate sounds, while at the same time creating new meaning and integrating new information with old.

Such definitions of comprehension are indicative of the complex processes that underpin the learning and the instruction of reading comprehension. Questioning is without a doubt an essential element in the process (Beimiller, 1999). The quality of the question framed within the context established by the text is significant (Block, Gambrell & Pressley, 2002), whilst recognising that the parameters for reading, for example, the purpose, the processes and the consequences according to Sweet and Snow (2003) are ever-changing. These researchers are consistent in noting the importance of readers knowing how and when to engage cognitive, metacognitive and linguistic processes in order to comprehend texts. The comprehension process demands high levels of text management in simultaneously shifting between figuring out vocabulary meanings which match the context, in integrating old information with new, and in constructing meaning through employing an appropriate range of strategies, in and beyond the text, as reading progresses. Readers must do it rapidly and efficiently.

1.2.5 A Reading Comprehension Definition for the Research

In Kura Kaupapa Māori reading comprehension is a relatively new field of study. For the purposes of the current study reading comprehension is defined as,

'\textit{te hanga, te whakamārama kōrero mai te pukapuka}’ – ‘to shape, to elucidate the talk of books’.

The definition reflects the simplicity and profundity of te reo Māori which takes into account the notions of answering questions (Beimiller, 1999), the acquisition of meaning from texts (Block et al., 2002); and, the simultaneous extraction and construction of meaning (Sweet & Snow, 2003) and incorporates the richness of comprehension definition already established by educationalists and researchers. One such educationalist is Dr Rangimarie Turuki Pere (1991) who deems language to be one of the most important forms of child ‘empowerment’ in not only
communication but also ‘in transmitting …values and beliefs’ (p.9). Within the Māori learning environment tamariki (children) are positioned at the centre. A cross-range of kaumātua (elders, both male and female) shared their expertise and knowledge (Vygotsky, 1978) in the form of songs, chants, dances, historical accounts, genealogical ties, conversation, debate, and challenge amongst others (Gee, 1990; Krashen, 1976). Te reo (language) encapsulates ‘… the life principle of a people… gives sustenance to the heart, mind, spirit and psyche…’ (Pere, 1991: p.10). Such culturally-based language and ideas (McNaughton, 2002) are examples of what children might have in their heads (Clay, 1991; Urquhart & Weir, 1998), talk inwardly to themselves about (Gaskins, 2003), and store as sensory imagery (Keene, 2002) when engaging with texts. The comprehension definitions explored and assigned through the work of the above-mentioned researchers have generally informed classroom practitioners regardless of teaching and learning context, including Kura Kaupapa Māori, in Aotearoa New Zealand.

1.2.6 Theoretical Approaches to Reading Comprehension Development

Over more than twenty years a number of theoretical approaches have attempted to describe and explain the development of reading comprehension. Researchers working in related fields (for example, psychology, cognitive science, linguistics and philosophy) have contributed to both a refinement in experimental method, and an expansion of comprehension theoretical frameworks. Reading teachers and reading researchers would generally agree that reading comprehension is a process consisting of many complex parts. Readers comprehend words, phrases, sentences and paragraphs (and not necessarily in that order) in a bid to determine what message the writer is intending to convey. Three models of reading have prevailed over the past twenty years or more: the bottom-down, the top-down, and the interactive models, and have impacted on the ways in which readers are taught to comprehend text.

Gough (1972) for example, theorised that reading was initiated by visual cues as a decoding process (bottom-up), whilst Goodman (1970) argued that not only do good readers use visual cues they also generated hypotheses about the text (top-down). In contrast, Rumelhart (1975) conceptualised reading as an interactive process, the combination of both the bottom-up and top-down models.
Distinct from the top-down, bottom-up or interactive theoretical debates was the text comprehension theory proposed by Kintsch and van Dijk (1978). Kintsch’s comprehension paradigm is concerned with the psychological processes involved in acts of comprehension. The researchers theorised that comprehension arose as the result of mental processes. In theory when a majority of specific relational elements or idea units enter into a process to form an interconnected network then, theoretically, comprehension occurs. The process could be conceptualised as a melting pot of idea units but some idea units fit whilst others do not. The unrelated elements are temporarily rendered inoperative but remain in the long term memory. Meanwhile related elements supported by (information from) the perceptual system, usually the long term memory, integrates information (that fits) to achieve comprehension. It is then required that the reader engage in language processing in order to describe the idea unit (or units). Kintsch (1974) initially, was concerned mainly with descriptive systems which consisted of units that provided the basis on which a reader’s responses (language processing or as conceptualised in this thesis as language use) to texts were investigated. The proposition was one such unit of analysis.

The term ‘proposition’ is defined by Pearson and Camperell (1981) as ‘a clause [that] contains an active or stative verb’ (p.31). Kintsch, on the other hand, theorised propositions as representations of text (either text derived or supplementary to the text from long term memory experience) that focus on aspects of meaning ‘directly’ relevant to ‘how people understand a text’ (Kintsch, 1998, p. 49). Kintsch theorised human text comprehension as the transformation of either written or oral language into ideas in the reader’s mind. The main ideas from texts appeared to constitute the premise that determined the type of processing a reader selected in order to derive meaning. That is, only comprehension elements that relate meaningfully to each other are thought to be implicated in the process whilst others remain dormant.

In collaboration with van Dijk (1978), the theory of the proposition as a process emerged which constituted a discourse shift from that of a systems framework to a concern about the mental processing of main ideas represented by texts. Kinstch and van Dijk’s (1978) research proposed that idea units are formulated in the text
microstructure and the global units in the macrostructure (Figure 2). Propositional representations focus on features relevant to text meaning, specifically, meaning as the author intended. Semantic microprocessors (for example, letters, words, clauses, and sentences) are characteristics embedded in text and in comprehension comprise the microstructure (or the sentence-generated information) ‘... as supplemented by and integrated with long term memory information’ (p.50). The propositions, which appear to be ordered in a hierarchical fashion form an implicit part of the theoretical macrostructure from which for example, recall and summarisation protocols may be formulated. It is these mental processes involved at the levels of micro- and macrostructure that were subjected to analysis in the research and not the textual material.

Figure 2: ‘Representations in the reader’s mind’ (based on Kintsch & van Dijk, 1978).

Thus the comprehender may, depending on the active control schema, begin meaning-making of the text at the theoretical micro-level all the while constructing a rough mental model from elements of information provided by the text and the comprehender’s own ideas that form coherent relationships to describe or explain understanding. Theoretically, it is thought that the mental process of meaning-making is the realm in which chaos reigns. Some information belongs but some is errant. So the comprehender may mentally oscillate between the theoretical micro- and macro-structures in an effort to extract the gist from text but still lack
comprehension because of a poor fit between elements. Therefore propositional representations of text must fulfil many functions such as the complex interconnectivities between related elements of text content that focus on meaning.

According to Kintsch, representations in the mind may be conceptualised as a development through three distinct phases; perception, understanding and problem solving, each of which acts to either constrain or support one phase or the other[s] at some point in the process. For the purposes of scientific discourse, Kinstch contrasts understanding (‘when the relationship between the object and its environment are at issue or when action is required’) and perception (‘isolated instances of perception’ where no action is required’) with problem solving (the ‘repair process’). Perception and understanding are characterised as parallel yet discrete phenomenon that appear to generate problem solving if and when readers do not understand words, phrases or sections of text. They each serve to constrain yet, at the same time, satisfy the resolution of events in the mind through a succession of complex procedures.

The research in cognition which documents the developmental nature of children’s comprehension was strongly suggestive of socio-constructive paradigms but classroom practice in comprehension instruction sometimes reflected a Piagetian view (Piaget, 1955) of learning and development. For example, in text comprehension when some children ‘hit the wall’ (Reutzel, Camperell, & Smith, 2002) perhaps for the want of sufficient background knowledge what forms of interrogation may be required to co-construct understanding with the reader who might know some ‘bits’ (of knowledge) but not others. Piaget’s approach was based on the premise that learning lagged behind development and a child’s readiness was ‘a precondition of learning’ (Vygotsky, 1978). Children were generally supposed to work independently of competent peers or expert adults. Paris and colleagues (1988, 1984, 1984 cited in Block & Pressley, 2002:141) argued that comprehension demanded a shift in cognition because meta-cognition and reasoning continued to develop through the primary years. This and other works (Sheldon, 1965; Seigler, 1976, 1996; White, 1996 all cited in Block & Pressley, 2002, p.141-142) suggested that different types of comprehension work might be more effective if taught at
different grade levels. White, in particular, emphasised children’s development in ‘learning to reason with others’ (p.144) during the cognitive shift.

Krashen’s monitor theory of language acquisition and learning (1976, 1981) proposed two knowledge systems that may underpin language performance (1976, 1981 cited in Block & Pressley, 2002, p.142). The first, ‘acquisition’, was considered to function subliminally in social groups whilst the second, ‘learning’, was more deliberate and formalised. However, Gee (1990) argued that these cognitive operations were mixed and that the balance achieved could be different at different developmental stages. Salomon and Perkins (1989 cited in Block & Pressley, 2002, p.142) supplemented the contrast in cognitive operation in equivalent terms: either, a ‘low’ road to transfer, dependent on practice in related but expanding contexts; or, a ‘high road to transfer’, demanding of the ‘mindful abstraction of knowledge from a context’ (p.143).

Although Krashen and Gee hold contrasting views, on language acquisition and learning, these second language researchers converge on process. The process of comprehension acquisition (Block & Pressley, 2002, p. 144) is well-known as a learning situation demanding teacher support (high road transfer). Helping children to develop their reasoning, vocabulary and language usually occurs orally at first. For example, developmentally, the retell task is considered one of the first language proficiencies to emerge in the form of narrative story-telling (Francis & Reyhner, 2002) and a contextualised process involving expert others (Vygotsky, 1978) during knowledge transfer. The process for learning to comprehend texts however, at least in its aim to modify comprehension behaviour, is often a process of de-contextualisation of the cognitive elements that form the rules or principles observed in comprehension strategy instruction. In other words, the process to modify comprehension behaviour could often occur with little or no guidance from expert others about text genre or topic.

1.2.7 Comprehension Models
Comprehension models can be linked to processing types or models characterised by attempts to demarcate the reading process into approaches that were described
by Gough (1972) as bottom-up, by Goodman (1970) as top-down or by Rumelhart (1975) and others (Stanovich, 2000) as interactive.

Text-driven processing (Jenkins & Pany, 1981, p. 166), or text-focussed processing (Urquhart & Weir, 1998, p. 40) roughly appears to correspond with the bottom-up, data-driven process concerned with text-related, cognitive structure (such as for example, unfamiliar vocabulary, sentence syntax) and background knowledge of the comprehender. Schema-driven (Jenkins & Pany, 1981, p. 166) or reader-driven processing (Urquhart & Weir, 1998, p. 43) appears to correspond to the top-down approach and is concerned with the linguistic demands of the text, that is, individuals make use ‘of existing knowledge structures to interpret and organise prose’ (Jenkins & Pany, 1981, p. 165). For example, the positive relationship between the reader’s vocabulary and the individual’s comprehension (Gough, 1984; Stanovich, 2000) is dependent on rapid decoding and word recognition. Palinscar and Brown’s reciprocal reading model is an example of the interactive model of comprehension. It is an approach which shows an individual’s attentional factors and levels of processing (Craik & Lockhart, 1972 cited in Jenkins and Pany, 1981, p.166). While the approach might give the impression that the individual possesses adequate background knowledge and a suitable level of reasoning skill there the capacity to ‘maintain focus on and self monitor comprehension or to employ systematic memory strategies’ (Jenkins & Pany, 1981, p. 166).

In Figure 3 the comprehension models above are simplified. In practice it is fairly difficult to agree on when one model ends and the other begins. For the purposes of analysis, however, it is fairly simple that if hypothetically, instruction is oriented towards sound-symbol relations to facilitate rapid decoding then we are looking at one aspect of the bottom-up comprehension model. If the same hypothetical lesson commenced with discussion about the title of the narrative, an aspect of the top-down model, theoretically the influence on cognitive structure had been exerted. And if the hypothetical comprehender was provided feedback which focused on meaning as opposed to sound-symbol relations then the complete comprehension package was activated almost without proceeding beyond the front cover of the book. Both comprehension assessment and comprehension instruction however,
have been found to be generally based on variables derived from the comprehension models discussed in this section of the review.

![Diagram of Models of Comprehension](image)

**Figure 3:** Models of comprehension

### 1.2.8 Standardised Diagnostic Assessment Procedures

A dearth of assessment tools exists across all curriculum areas in Maori immersion schooling contexts. The knowledge base concerned with reading assessment and reading comprehension assessment, in particular, is still growing in Kura kaupapa Māori it is still very much in its infancy. What is known is that assessment is a dynamic, social process (Cazden, 1981) and as such forms an integral part of learning and teaching programmes. Assessment is also known to be informed by teachers’ beliefs and assumptions about the potential achievement of students which in turn may have an impact on the selection of assessment procedures particularly for students of diverse backgrounds.

Comprehension and its assessment have been closely aligned to and very much determined by the comprehension models (discussed in the previous section) and comprehension instruction. Such comprehension models have in general, provided the theoretical basis on which instructional frameworks and their attendant assessment processes have been developed. There is general agreement among reading theorists however, that it is the reader who completes any text by converting it into meaningful dialogue which could possibly account for different readings of the same text. Comprehension assessments were constructed for the
purposes of measuring student performance against an ‘agreed standard’ (Urquhart & Weir, 1998, p. 111). So assessments need ‘to test what we actually want to test (validity) and that we can depend on the results our tests provide (reliability)’(Urquhart & Weir, 1998, p. 111).

Reading assessments in general use in the early primary school years (Year one through to Year four) in Aotearoa/New Zealand English language mainstream settings include standardised diagnostic assessment procedures such as the Schools Entry Assessment procedure, the Running Records procedure, and the Observation Survey procedure (also known as the six-year net). All standardised diagnostic reading assessment procedures available in Aotearoa/ New Zealand contain sub-tests that assess comprehension. Mainstream schools may also access other standardised and non-standardised assessments across all other curriculum levels.

In Māori immersion contexts a total of three reading assessments are available in te reo Māori (See Section 1.2.12) which are roughly equivalent to:

*The Schools Entry Assessment (SEA)*

The Schools Entry Assessment is a set of three specific procedures. The SEA helps teachers to gather information about a five-year old child’s literacy and numeracy skills during the first two or three weeks of school. The comprehension-related sub-test in the procedure is the retelling task.

*Running Records*

Developed by Marie Clay (1993), the running records procedure provides an outline for the systematic observation of children’s reading behaviour – recording exactly what children do as they are reading. From the data gathered during this procedure a teacher can gain considerable insight into what strategies children use to solve unknown words, children’s developing competence in drawing sources of information together, the development of a child’s self monitoring and self-correction strategies, and a child’s proclivity for risk-taking. A comprehension-related sub-test for this procedure is the additional provision for teachers to invite children to retell the story. The retelling task however, is not part of the running records procedure.
The Observation Survey (The Six-Year Net)
The Observation Survey (Clay, 1993) provides a reading stock-take from six measures for systematically observing children who have attended for one Year in Aotearoa/New Zealand schools. Comprehension-related sub-tests for the Observation Survey procedure include oral language, concepts about print, reading of continuous text, letter knowledge, and reading vocabulary amongst others (writing vocabulary, and hearing and recording sounds in words).

Other standardised procedures which include comprehension-related sub-tests and available in te reo Māori are the Ministry of Education and The University of Auckland’s (The Ministry of Education & The University of Auckland, 2003) asTTle diagnostic procedures for reading, writing and mathematics.

Assessment Tools for Teaching and Learning (asTTle)
The asTTle tools in literacy and numeracy are assessments for students in both primary from Year 4 to Year 8, and secondary schools from Years 9 to Year 13. Once scored, the asTTle tool generates interactive graphic reports from which analyses of student achievement against curriculum levels, curriculum objectives, and population norms can be made. The asTTle assessments are administered and marked to specified standards.

Informal or non-standardised assessment tasks which are usually developed by teachers in Māori immersion contexts include the informal prose inventories and cloze tests.

Informal Prose Inventories
Informal prose inventories involve both oral and silent reading. Such inventories are usually presented in two parts: the first part is read aloud by the student during which time the teacher takes a running record to establish the student’s reading accuracy. The student completes the second part by reading silently. Questions and discussion follow in which the student’s understanding of what s/he has read is explored. In general a wide range of comprehension-related information may be gathered, for example, whether students’ are inferencing and making connections with and the use of word level information.
The cloze procedure is generally used to assess a student’s comprehension. Words have been deliberately removed from the text. Students are required to use the context or surrounding text to help them identify words to fill the blank spaces.

### 1.2.9 Comprehension Instruction

From the early 1980s to the present day comprehension instruction research has grown rapidly. The range of comprehension topics has been extensive from focussing on comprehension as an integral process in reading, like for example, Rumelhart (1981) on schemata, Pearson & Camperell (1981) on text structures, and Trabasso and Bouchard (2002) on strategic comprehension instruction, to practices in the classroom such as the strategy acquisition research of Borkowski, Carr, Rellinger and Pressley (1990), the instructional strategies studies of Block and Pressley (2002) and colleagues, and the second language acquisition (Baker, 2001; Urquhart & Weir, 1998) and comprehension research in bilingual contexts of Elley (1981) and others.

Comprehension instruction could include such dimensions as the differences to teaching and its supporting activity which could be influenced by instruction (Wharton-McDonald, 2002), or culture (Cazden, 1981; Delpit, 1995), or text, or the knowledge and experiences each reader might bring to the comprehension task (Block et al., 2002), or a combination thereof. Pressley (1998) and Wharton-McDonald (2002) argue that cultural accommodation may be regarded as the need for balanced instruction in student-centred learning environments. Cultural accommodation, however, could mean also that practice and its representations become so implicit that (it) ‘...gives the world its self evident, natural character’ (Bourdieu & Nice, 1977, p. 3) – a notion that accords with research conducted by McNaughton (2002), Alton-Lee (2003) and others (Francis & Reyhner, 2002; Hill & Hawk, 2000; Hohepa & McNaughton, 2002) and suggest that the conceptualisation of balanced instruction may differ according to contexts of cultural diversity.

Much research has acknowledged the contribution of Kintsch and van Dijk’s (1978) text comprehension theory which proposed that comprehension is developed from...
both ‘big’ and ‘small’ ideas contained within texts. However, researchers continued to explore the ways in which ideas from texts may be developed, re-framed and described by readers when expressing understanding. For example, the vocabulary knowledge research of Beck et al. (1982), and Anderson and Freebody (1981), Cazden’s (1981) and Delpit’s (1995) research into the social context of learning to read, and Trabasso’s (1981) inferencing research amongst other comprehension-related topics, and best practice in literacy instruction (Block et al., 2002; Morrow, Gambrell, & Pressley, 2003; Sweet & Snow, 2003).

Dolores Durkin’s research highlighted where the comprehension-focus of many reading programmes in the United States and elsewhere lay, that is, in comprehension testing. Different teaching approaches were created to foster the development of comprehension. The most widespread approach, the directed-reading lesson developed in the 1950s, was generally characterised by a reader’s ability to recall surface features of texts through a question-response approach. Instructional primer materials of the time (Beck, 1984) came packaged complete with their own texts and prescribed teaching approach. Encounters with text content were often assumed by the preceding material in a series. Durkin’s findings drew attention to the fact that understanding text was not a natural consequence of reading and a review of comprehension teaching was called for.

Such a review was hampered, in part, by the apparent reluctance of school districts, boards and educators to accept that what was happening in classrooms with regard to the teaching of reading comprehension was not working, and partly by the ‘reading wars’. Much reading research focussed on matters such as: beginning to read or ready to read (Adams, 1990; Chall, 1991; Clay, 1991); basal readers or authentic texts (Beck, 1984); whole language or phonics instruction (Perfetti, 1977; Weaver, 1994; Williams, 1980); contextualised or de-contextualised word recognition (Ehri, 1992; Nicholson, 1991), skipping over unknown words or sounding out them out, amongst a range of others, all despite the knowledge that numbers of students still failed to understand what they were reading, and a growing body of comprehension literature that began to explain why that might have been so.
According to the ERIC database, the number of journal articles and other publications that mentioned ‘comprehension’ rose exponentially from 50 articles in 1966 to 550 new articles in 1978, and peaking in 1983 to 600 new articles (Urquhart & Weir, 1998, p. 21). Interest in comprehension studies and the cognitive processes central to it was reflected in the number of articles written at the peak (between 1983 and 1985) seemed to be stimulated mainly by reading and comprehension research conducted by a new generation of cognitive psychologists, linguists, and educationists (amongst others) that explored reading beyond decoding to reading as an intricate network of cognitive processes.

Coincidental to, but discrete from Durkin’s findings was the release in the United States of the 1980 National Assessment of Educational Progress (NAEP) report (cited in Block, Gambrell & Pressley, 2002) equivalent to the report card on schools and their delivery of the curriculum across targeted subject areas. Among the recommendations for the teaching of reading was that instruction ought to reflect higher level cognitive thinking (Borkowski et al., 1990), expository (Burns, Snow, & Griffin, 2003) and interpretation skills (Gaskins, 2003) and instructional strategies and approaches (Block & Pressley, 2002; Keene, 2002; Trabasso & Bouchard, 2002). Attention to effective comprehension instruction combined with the development of teaching strategies in order to improve and increase understanding from printed texts were considered fundamental to successful comprehension outcomes for students.

The NAEP report was significant in acknowledging the specific role of comprehension in the reading programme and concluded that unless instruction extended the learner’s skills to independent text processing (Michael Pressley, 1998) then, to paraphrase Chesterton², half comprehension would be better than no comprehension. Instruction by and large involved teacher-generated, post-reading comprehension questions (Durkin, 1978-79) which focused on specific text content as opposed to the development of metacognitive schema (Rumelhart, 1981) for the comprehension of all texts. Comprehension required a conceptual transition from

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² Chesterton, G.K. - The British writer and poet. (1874-1936). In What’s wrong with the World? (1910) Chesterton stated, “Compromise used to mean that half a loaf was better than no bread. Among modern statesmen it really seems to mean that half a loaf is better than a whole loaf”.
one instructional state to another, that is, from interrogation and testing (Durkin, 1978-79) to explanation (Gaskins, 2003), demonstration and modelling (Palinscar & Brown, 1984).

The impact of an American influence on literacy was widespread. In New Zealand this occurred roughly about the time of the Japan war (1940s). By the late 1940s teachers in Aotearoa New Zealand rejected the notion of an English literary-based curriculum – reading rather than English literature became the ‘key tool subject’ (Soler & Smith, 2000, p. 24) of the primary school literacy curriculum. By the 1950s terms such as ‘reading age’” standardised test’, ‘basal readers’ (Soler & Smith, 2000, p. 24) amongst others had become a part of the teacher discourse. American educational researchers became influential. The testing regime about which Durkin (1978-79) had reported in her research had taken a foothold in Aotearoa New Zealand. The 1953 Reading Syllabus marked the entry of reading as a ‘legitimate and independent primary school curriculum area’ (Soler & Smith, 2000, p. 33). Reading had shifted in emphasis from an English-language cultural and morals-based literary focus to reading as a fundamental need – more scientifically-based with the introduction of scientific graded readers even in Aotearoa New Zealand’s Native School system (see Section 1.2.11). The post-war reconstruction witnessed changes that continue to shape literacy practices in Aotearoa New Zealand into modern times.

Throughout Aotearoa New Zealand there is a similarity in the way in which children are taught to read. Reading is identified as a process, the aim of which is to gain meaning from written text. Context in reading is used as one primary instructional strategy with writing seen as being closely connected to reading. The Ministry of Education is supportive of the teaching methodologies adopted and adapted by teachers, and evidence-based publications for teachers are issued free of charge to schools. One such publication is Effective Literacy Practice in Years 1 to 4 (Ministry of Education, 2003) which focuses on the critical role of the classroom teacher in improving learning outcomes for students. The message is clearly put, the teacher is important and what the teacher does in the classroom is important. Far from directives issued from on high (evident in the early years) the publications inform teachers on such research evidence as: focusing on practice, knowing the
learner, instructional strategies, engaging learners with texts, teacher expectation, partnerships in school an out of school, and characteristics of effective programmes (Ministry of Education, 2003, p. 7). The reading comprehension messages in Aotearoa New Zealand (McNaughton, Lai, MacDonald, & Farry, 2004; Rau, 2005) resonate with the theories of learning and instruction developed by Pressley (1998) and others (Cazden, 1981; Delpit, 1995; Gaskins, 2003; Morrow et al., 2003). The transition from one instructional approach to another was all but ignored in practice for, ten years after the release of the 1980 National Assessment of Educational Progress report, the predicted comprehension instruction upheaval (Pressley, 2001, September) had not occurred despite the incomparable accessibility to comprehension instruction research evidence (Urquhart & Weir, 1998, p. 21).

1.2.10 Instructional Variables and Instructional Strategies

Instructional variables and instructional strategies for the purposes of the Can I Tell You Something study refer to intentional attempts, external to the text, to fine-tune a student’s comprehension of that text (Jenkins & Pany, 1981). Instructional variables may be influenced by the text, the reader or the teacher (El-Dinary, 2002; Gaskins, 2003; Guthrie, 1981b; Sweet & Snow, 2003). El-Dinary’s (2002) research refers to the term transactional strategies instruction which describes the emphasis on long term instructional goals. Instructional strategies refer to the modification of one or more instructional variables that are considered to improve the reader’s comprehension of written texts (Block & Pressley, 2003), and that assist the reader to monitor understanding (Block et al., 2002).

The major goal of reading instruction is to ensure that all students read independently and fluently with appropriate comprehension. In practice such an ideal has long been fraught with underlying tension. Examining one’s beliefs in order to understand what might impact on improving student comprehension outcomes which extend beyond the surface features of text were traditionally considered the task of researchers, not teachers. Unravelling the content of texts that students were likely to encounter, complete with the assumptions about previous knowledge, vocabulary knowledge and the structure of genre embedded in texts were tasks for publishers and policy makers, not teachers. Learning to be an
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The instructional strategist is challenging and ‘clearly more complex than interventions... evaluated by ... researchers’ (El-Dinary, 2002, p. 201).

The challenge for change was compounded by the preponderance of reading approach controversies about the analysis of the language of texts (Kinstch, 1974), and how to instruct in order to gain meaning such as the word by word or the look and say approach of the pre-1980s, or whole language or the multiple cue systems approach of the post-1980s. Phonics-oriented advocates claimed that whole language was responsible for the under-development of decoding skills. Knowing letters in words and the sounds they represent sounding them out and blending the letters had subsequently been found to make a difference to comprehension (Nicholson, 1991). Indeed, decoding a word is a prerequisite to reading but not sufficient in itself for comprehending text (LaBerge & Samuels, 1974; Liberman & Liberman, 1992; McNaughton, 2002). Rapid decoding however, has been found to have a more positive effect (Stanovich, 2000). Comprehension requires many complex skills – skilled reading, a keen sense of anticipation and the ability to review events in texts (Block & Pressley, 2002), knowing when information encountered in texts is relevant to the goal and purpose of reading (Block & Johnson, 2002), relating new knowledge to prior knowledge about topics in texts (Ogle & Blachowicz, 2002), the capacity to monitor own reading (Snow, 2003) and, reflection about text content.

It seems that many instructional variables have provided the main tools of analysis in efforts to modify reading comprehension (Gough, 1984; Jenkins & Pany, 1981; Kintsch & van Dijk, 1978; Rumelhart, 1981; Sweet & Snow, 2003). Palinscar and Brown’s (1984) approach involves the use of four specific instructional strategies: formulating and generating questions, clarifying ideas from texts, prediction using prior knowledge combined with information in texts and summarisation. Incorporating options such as answering questions, inferencing and drawing conclusions amongst others the approach has potential for rich dialogue and discussion. The teacher models and explains the strategies which is integral to the teaching process. El-Dinary’s (2002) transactional strategies instruction which includes modelling, explaining and scaffolding, is not dissimilar to Palinscar and Brown’s (1984) approach. The teacher explains the strategies consistent with the
direct explanation model at the beginning. This procedure is also full of rich dialogue and interactions.

Pearson and Duke’s (2002) studies in pre-school, primary and intermediate grades reviewed comprehension instruction in the United States. Their work clearly rejected the notion that comprehension instruction should not be taught in elementary grades whilst children are still learning to decode text. Pearson and Duke assert that it is never too early to begin systematic comprehension instruction. Their research summarised specific techniques for comprehension instruction which included retelling, recalling and the shared book experience, as well as a concurrence with the cognitive and interpretive strategies mentioned elsewhere in this thesis. But regardless of the programme the literature overwhelmingly proposes that instruction must consist of modelling, scaffolding, guided practice, and independent use of strategies so that an internalised self-regulation of comprehension processes is developed (Block et al., 2002).

Trabasso and Bouchard (2002, pp. 178-187) identified from 205 studies twelve strategies that potentially could influence and affect comprehension instruction. This section examines some of the most commonly researched instructional strategies (which may have potential for the current study) that included questions, word recognition, vocabulary, prior knowledge, prediction, inferencing, retell, recall, and summarisation.

**Questions**

Questions are by far the most commonly used strategy for comprehension instruction. Questions may be of several types to support comprehension. For example, question answering where readers find answers from texts, question generation where reader’s self-question as they read texts (Trabasso & Bouchard, 2002, pp. 180-181), question prompts which are prevalent in the form of the Initiate-Response-Evaluate (I-R-E) in classroom talk (Cazden, 1981; 1988), questioning the author – conceptualised in the comprehension process as readers moving from ‘memorisation’ to ‘engagement with... author’s ideas and construction of meaning’ (Ogle & Blachowicz, 2002, p. 262), and questionnaires involving questions concerned with the assessment and development of readers
‘metacognitive knowledge and strategy use’ (Baker, 2002, pp. 85-86). What is clear from the literature is that quality questioning must form an integral part of the instructional process no matter what the reading programme.

**Word recognition**

Word recognition usually involves the ‘rote association of a word’s name and meaning with its printed counterpart’ (Sweet & Snow, 2003, p. 56). Word recognition can be known as whole word identification or sight word identification (Sweet & Snow, 2003), or word naming (McNaughton, 2002; Stanovich, 2000) or decoding. It is a basic part in the acquisition of fluency in text reading and is considered central to the reading process. A deficiency in it is considered likely to inhibit comprehension (Stanovich, 2000). Practice is required particularly with regard to words (at least in the case of English) not easily identifiable by the skill of decoding or content of the text for example, words such as *the, here, and,* in English language texts. Such words usually form a non-content part and have an essential rather than a referential role in texts (Sweet & Snow, 2003). Researchers also agree that whilst word recognition is necessary it is not sufficient for comprehending reading texts. For example, Burns, Snow and Griffin (2003) and others (Clay, 1991; Phillips, McNaughton, & MacDonald, 2001a) contend that the diagnosis and analysis of errors and miscues in a child’s reading may provide an insight into the extent to which children are monitoring meaning. Furthermore, patterns of errors may be informative in addressing future literacy needs (particularly, in the case of the phonetic regularity of written te reo Māori).

Theorists have posited two alternate routes to explain word-recognition processing. The first, via the direct route was the process from visual input to word meaning, without the incorporation of sound. The second more indirect route, was identified as the phonemic or phonological route in which the process commenced with visual input, to sound, and finally to meaning (Stanovich, 2000; Urquhart & Weir, 1998). Sweet and Snow (2003) and others have identified basic cognitive abilities that may contribute to the way in which individuals access word recognition. Two of three cognitive abilities relate to memory, such as phonological memory ‘important in acquiring vocabulary knowledge...’(p.59), visual memory or ability in storing and retrieving visual images, whilst the third cognitive ability or the visual-verbal
ability to ‘associate visual and verbal information’ (p.59). Positive development of one of the following cognitive skills such as phonological awareness, letter-sound decoding, spelling or word recognition is usually considered beneficial to positive growth in the other skills.

**Vocabulary**

It is now known that children learn how to imitate language patterns from an early age. They hear the sounds of words when they engage in conversation with others and when they are ready to. Over time, and much exposure to the language of texts, they eventually learn not only to hear the words but how to use the words in supporting, extending and inspiring their own language development (Cullinan, 1989). Children become skilled at adapting the language of texts to construct and tell their own stories.

The language-vocabulary strategy is described by researchers in various forms such as: the voice in the head (Clay, 1991); inner speech (Urquhart & Weir, 1998); active involvement (Gaskins, 2003); and, sensory imaging (Keene, 2002). In comprehension such descriptions of language explore mental processing as assuming metacognitive control of one’s thinking (Clay, 1991). There is much in the literature to suggest that inner speech follows post lexical processing, and that the sounds of words can affect reading accuracy and speed (Rayner & Pollatsek, 1989). These researchers suggest that the main function of inner speech is to hold information in the working memory in preparation for processing. Perfetti (1985) claims inner speech is weighted towards the initial sounds of words, and more prevalent in content as opposed to function words.

Comprehension is dependent on an extensive vocabulary and the richer the vocabulary the better the comprehension. It is reasonable to expect that reading words already contained in the speaking vocabulary will be more straightforward to learn than words that are not. According to Sweet and Snow (2003) deficient ability in vocabulary and language can lead to difficulty in ‘the acquisition of word recognition and related phonological skills... especially in disadvantaged and bilingual children (p.58). But it should be noted that Sweet and Snow’s statement referred to children who speak other languages learning to read English texts.
Prior Knowledge (Background Knowledge or Schema)

All new knowledge is based on existing knowledge and experience. In their studies in schema-theoretic orientation, Pearson and Camperell (1981) established a link between prior knowledge and the reader’s construction of meaning. Readers who are good comprehenders actively use prior knowledge in building and maintaining text coherence. Numerous schema appear to be activated at many levels as prior knowledge is synthesised into the cognitive processes involved in reading comprehension (Kintsch & van Dijk, 1978). In the process however, some schema may be automatically activated whilst others are temporarily rejected.

Prior or background knowledge is thought to be closely linked to schema (Rumelhart, 1981), that is, readers’ knowledge about topics, events and situations; and schema theories; the bases on which the comprehension of texts may be explained and representative of a constructivist view (Piaget, 1955). The processing, interpretation and recollection of texts seems to be largely determined by background knowledge and experience. In activating prior knowledge as another source of information teachers assist students to make connections between what the reader knows and what the reader is reading. The connections help students to predict, infer and interpret as they read which theoretically, helps build and improve comprehension.

Prediction

Prediction is identified as a metacognitive ability and may be used to identify words in texts and to anticipate what could happen next. Readers’ expectations may be generally aligned to information gained initially in texts. Prediction requires readers to hypothesise (Sweet & Snow, 2003) based on such information. To complete a task the activation of background knowledge is necessary with further reading either confirming or disproving hypotheses. Prediction is considered to be more than supposition as it has a strong relationship to meaning and may also draw on readers’ use of ‘syntactic, semantic, visual and grapho-phonics’ (Ministry of Education, 2003, pp. 28-30) clues in texts. Readers generally need guidance and instruction to know when and how to use prediction.
For all readers at all stages of reading development prediction could occur in different ways. For example, the beginning reader could draw on a combination of letter-sound knowledge or initial letters or repetitive text or illustrations to predict words, whereas the fluent reader might use prior knowledge as well as information in the text to make decisions about meanings of unknown vocabulary. Usually readers can begin to anticipate what might happen next if graphic organisers such as paragraph headings, sub-headings, and any questions embedded in texts are on hand.

Inferencing

According to Block, Gambrell and Pressley (2002) inferencing requires, amongst a raft of the types of inferences proficient readers use, access to prior knowledge (schema) and textual information in order for readers to form crucial judgements about and construct distinctive interpretations from texts. Drawing inferences is generally thought to be about creating meaning as one reads and may occur as predictions, conclusions or summaries (Block et al., 2002). Causal inferences appear to be important for building a coherent understanding of text (Block & Pressley, 2002).

Readers generally may have practised inferring in their early shared book reading experiences because stories are read aloud to them as they are learning to read. The shared book experience almost always uses narratives with high-interest story lines which support the generation of inferences. Frequent retellings and increased exposure allow children to grasp ideas as well as print conventions to be found in texts. Such experiences move the reader from guided reading, listening and speaking with the teacher and others, to independent reading or reading with a peer or listening-reading for example, reading with the aid of an audio tape. Individual differences in cognitive abilities do matter and ultimately determine what information readers’ learn from text.

Retell

Retelling or re-narration (Francis & Reyhner, 2002) of a story may be considered similar to paraphrasing. It can take two forms either oral or written. Retelling is generally associated with numerous repetitions of a story with each retelling bringing to the fore aspects of plot or grammar or the discovery of new aspects of
narratives (Francis & Reyhner, 2002). Participation in the shared book experience provides opportunity for readers to ‘tell’ aspects about a story. Often individuals will retell different aspects of the same story.

Retelling is more than ‘a rote-memory type, language task’ (Francis & Reyhner, 2002, p. 148). It necessitates a schema so that readers can assemble their own version of a story. Readers must first remember the storyline in order to analyse the story into its component parts (characters, locations, events, episodes, for example) and then synthesise the information into a coherent whole. It is considered that by such a process readers could ‘reconstruct and compose’ (Francis & Reyhner, 2002: p.148) their recollections of stories. So retell is open to reader creativity. Oral retellings for the purposes of scoring and analysis generally call for audio-taped versions.

**Recall**
Recall like retell can be either oral or written. Recall is remembering the events (or for example, episodes, characters, setting) in a passage of text. For assessment purposes the recall task will likely take the form of different types of questions, short answer or multiple-choice, to which readers’ responses are written using their own language. Recall however, draws attention to the fact that readers ‘may not... remember all they have understood’ (Urquhart & Weir, 1998, p. 165). Comprehension may not be equal to remembering. Like retell, for the purposes of analysis the capture of oral recall arguably requires the aid of an audio-taped version to ensure that problems associated with scoring are minimised (Francis & Reyhner, 2002).

Trabasso and Bouchard’s (2002) instructional strategies research was significant in developing the oral comprehension assessment for the *Can I Tell You Something* study. Of nine instructional strategies discussed previously six strategies (including retell, recall, inferencing, vocabulary knowledge, questioning, and summarisation) were incorporated into the oral assessment for the study. The cloze activity comprised the only pen and paper task in the *Can I Tell You Something* study.
1.2.11 Comprehension and Non-fiction Texts

Non-fiction texts are not often reported by teachers as material they readily use in literacy instruction (Dreher, 2002; Ogle & Blachowicz, 2002). However, when students are observed in school or public libraries they can often be observed choosing non-fiction titles. Regardless of their reading ability or chronological age students want to read such texts.

Non-fiction texts are comprised of the genre otherwise generally known as fact literature such as for example, text-books, newspapers and magazines, dictionaries, maps and increasingly, information from the internet. Some important purposes of non-fiction texts are to provide information, explain, argue or demonstrate content about a variety of topics (Kristo & Bamford, 2004; Ministry of Education, 1996). The writer often chooses the form or structure that best suits the content, and which also aids the reader’s understanding of a topic (Kristo & Bamford, 2004). Teachers generally use narrative texts when introducing concepts about print, language, meanings and ideas in texts. During the early stages of reading instruction many learners begin to develop the use of prosodic features (Kuhn, 2003) that include intonation and pitch, and stress and emphasis (Dowhower, 1991; Schreiber, 1991) are readily identifiable in fluent readers. Comprehending a variety of narrative texts and the incorporation of prosodic aspects into a reader’s repertoire may allude to the process of comprehension (as in the case of the tauira who provided the impetus for the Can I Tell You Something study).

Introduction of non-fiction texts in the early years at school may facilitate the learning of new comprehension strategies (Morrow et al., 2003) that meet the demands of processing new information in both traditional and recent media (e.g. the internet). Strategies such as learning new and specific vocabulary, questioning and critiquing, comparing prior knowledge with new information, and organising and presenting ideas are some aspects of comprehending content material with which students seem to face some difficulty (Block & Pressley, 2003; Sweet & Snow, 2002). Ogle and Blachowicz further contend that reading has been largely associated with the reading of fiction, arguably, to the possible disadvantage of students faced with the prospect of difficult content areas in their latter years at school. What is known is that the cognitive demand on readers increases on their
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passage through school (Morrow et al., 2003). Non-fiction texts however, are still used infrequently as instructional readers in the early years despite research to the contrary which suggests that the use of a variety of texts, for example, newspapers, magazines, entertainment guides and increasingly non-linear texts such as computer-generated hypertexts) is essential in developing an expanding range of comprehension strategies (Gaskins, 2003; Guthrie, 2003; Ministry of Education, 2002b; Ogle & Blachowicz, 2002).

All texts and books selected for the research were non-fiction, expository or informational texts available (in Māori) as standard issue to all schools in New Zealand. The use of Māori language non-fiction texts in the study was based on the idea of reading to learn from such texts. Initially, Māori language fiction texts were considered but rejected for other reasons including: excessive word counts or an insufficient number of words; highly repetitive text; uninteresting content; or, a combination of these factors as reported by teacher educators in the study. This was noted and reported to the research Advisory Group (see the Ethics section, Chapter two).

What the review has revealed are the complexities of comprehension and its instruction in English-medium contexts that could be compounded in Māori-medium contexts. Reading comprehension in the absence of cognitive activity is generally considered to be out of the question (Block & Pressley, 2002; Gambrell, Block, & Pressley, 2002; Guthrie, 1981b; Urquhart & Weir, 1998). Cognitive and metacognitive abilities of individual students entail many complex variables which call to account instruction that caters for such individual difference. Instructional variables taught in appropriate combinations have been found to be effective particularly so with the synthesizing potential of scaffolding. Good student comprehension outcomes depend on good instruction. The literature review thus far has focused on reading comprehension instruction in English-medium contexts, in particular, educational contexts in which students who are speakers of other languages are required, almost subliminally, to forsake their mother tongue in school in order to comprehend and learn about the material contained in English-language texts. Since 2000, the focus on bilingual and second language learning and teaching in te reo Māori in New Zealand studies has been on: reading and
writing development (Rau, 2001); effective teaching and learning strategies (Bishop et al., 2001); and, teacher development in reading instruction (Rau et al., 2001).

So what are some of the implications for reading comprehension instruction in te reo Māori?

In the following sections the review explores te reo Māori contexts in which the teaching and learning of reading comprehension is positioned, standardised diagnostic assessment procedures in te reo Māori; comprehension instruction in Kura; and, comprehension intervention and professional development in Kura.

1.2.12 Te Reo Māori Contexts and Reading Comprehension

In addition to mainstream English-medium educational contexts Māori children could be schooled in one of three distinct options at primary, intermediate or secondary contexts in New Zealand which may or may not offer instruction in te reo Māori. The first option is the bilingual (Māori and English language) school, bilingual unit or class usually situated within and administered by mainstream English-language schools. The second option is the Māori language rūmaki (full immersion) school, or rūmaki unit or class, again, usually located within and administered by mainstream English-language schools. The final option is that of Kura Kaupapa Māori, usually physically removed from and administered independently from English-language medium schools. All three options are funded by the New Zealand Government arguably on an equitable basis.

The threshold of Māori language used to teach in an immersion programme at primary schools in New Zealand is determined by the level of the target (Māori) language usage. The Maori Immersion Teachers Allowance (MITA) provides options to teach immersion programmes, as a percentage of total teaching time, to deliver the national curriculum at level one (81%-100%), level two (51%-80%) or level three (31%-50%). The level of te reo Māori usage is defined as the language of communication and instruction without the aid of another native speaker. In rūmaki schools, units and classrooms (including Kura) teachers are generally required to communicate and instruct using te reo Māori at level one. Fluency of the teacher in the target language is not the determining factor in Māori-immersion
Kura Kaupapa Māori were established under section 155 of the New Zealand Education (Te Aho Matua) Amendment Act 1999. Section 155(A) states that ‘… te reo Māori (the Māori language) is the principal language of instruction’, and ‘…the Charter of the school requires the school to operate in accordance with Te Aho Matua (as defined in section 155A)’. The official version of Te Aho Matua (see Section 1.1.9) is written in te reo Māori. All Kura participating in the study supported the principles of Te Aho Matua.

Māori people who lived in Tai Tokerau were among some of the first to learn to read and write English in Aotearoa New Zealand. In the 1800s their journeys as sailors on British trading ships took Māori to destinations such as Sydney, Australia and beyond. Missionaries stationed in Australia, in their anxiety to learn more about Aotearoa New Zealand in order to set up missions there, commenced the process of befriending then converting Māori to Christianity with indoctrination (schooling) at the mission school in Parramatta, Sydney (see Jenkins, 1991). English was taught to communicate the Gospels. By 1814 mission stations, each with its own mission school, were becoming established near pā (fortified village) sites in the Bay of Islands in northern Aotearoa. Missionary Thomas Kendall was one of the first teachers. At first Māori adults as well as children flocked to the schools for some simple reasons, out of curiosity or to access strange food. But Māori became enamoured with the printed word (Simon et al., 1998) so much so that they were soon teaching each other (p. 4) and it is said that Colenso’s printing press increased the demand for the Bible and other publications (Simon et al., 1998, pp. 3-4).

Kendall is credited with the development of the orthography of Māori sounds and words as the Māori language had no written format. Tītore, a young man from the Tai Tokerau travelled to England to assist in the development of the written orthography for the Māori language. Tītore’s Ngāpuhi tribe was greatly concerned with comprehending English language texts because of the perceived spiritual connection between the written word and proximity to God. The perception was
encouraged by the missionaries. The content of Kendall’s teachings was Calvinist doctrine (Jenkins, 1991, p. 26), the objective to tame the savage. According to the missionaries the definition of civilised beings was synonymous with those who could read and write English, at best in the virtues of Christianity. Accordingly, learning ‘letters’ and reading the Bible rapidly developed with the introduction of the printing press. But for Māori comprehending words written by missionaries in the context of missionary work not only meant learning Māori words in their newly written form but also adopting an entirely new mind-set in viewing the world through learning how to use corresponding English-language words. Ironically almost two hundred years later, the writer’s concern (and a descendant of Tītore) continues with comprehending te reo Māori texts.

Parallel to comprehension instruction in the United States were comparable historical and political debates that have shaped literacy instruction in Aotearoa New Zealand. It is a past heavily laden with links to Mother England. Much as Kendall taught literacy through Christian–based spiritual doctrine, the development of the primary schools syllabus was integral to the development of the nation as a South Pacific version of English culture and literature. For example, the 1904 school syllabus was an era of the centrality of the English language to the primary schools curriculum. English language literature across all school levels underpinned the development of English character and moral ideals. Reading instruction was more aligned to knowledge about literature as opposed to the teaching of reading. So too, was the need for young children to conform to the ‘British standards of speech and culture’ (Gordon & Abell, 1990, pp. 32-35 cited in Soler & Smith, 2000, p. 15). In less than 100 years after the signing of Te Tiriti o Waitangi (the Treaty of Waitangi) the Māori language had been sidelined in favour of English for educational purposes in Native Schools.

Initially, Māori children gained literacy in the English language by learning to read and write in Māori (Simon et al., 1998). This was short-lived. In the post-World War II years Native Schools soon became seeding grounds for the promotion of the idea that culture was conformity to English high culture and English language

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3 Te Tiriti o Waitangi – The Treaty of Waitangi – Aotearoa New Zealand’s founding document.
norms. The primary means of reading instruction was the Direct Method which excluded any teaching in the Māori language. In the 1920s Maori leader and politician Apirana Ngata, signaled the idea of the ‘native mind’ (NZPD, 1922, vol. 196, p.248 see Soler & Smith, 2000, p.35) in challenging the notion. Just as Māori avidly read print material off the press in the early 1800s so too they came to appreciate Shakespeare and other great English writers (Simon et al., 1998; Soler & Smith, 2000) in the Native Schools syllabus. The inculcation process regarding the superiority of English ideals and culture was almost unshakable. By the 1950s Ngata’s dream of literacy instruction in the Māori language in primary Native Schools was denied for it was considered by the authorities that there was nothing, not even aspects of Māori culture that could not be taught using the English language. The technocratic approach of the Direct Method prevailed in Native Schools. Teaching literacy in English continued. The politics of the 1800s and early 1900s were to have dire consequences for Māori traditional knowledge, Māori language and Māori whānau. However, what was good for Pākehā New Zealanders was considered good for Māori except for one change, the Māori language could be taught as a subject for ‘formal linguistic study’ (Simon et al., 1998, p. 74) at secondary school. The Māori language had passed through several stages: as the initial link to learning the English language; to being banned in the school grounds; then finally to a secondary school subject.

The influence of the scientific approach to teaching reading in Aotearoa New Zealand took a foothold in the mid-1900s. Literacy instruction of the time emphasised testing complete with psychometric-based materials, standardised reading tests, consultation with reading experts, and the use of ‘scientifically’ graded English language basal texts (Soler & Smith, 2000). But there were teachers in Native Schools who attempted innovative approaches to teaching literacy and Māori children. For example, one such teacher reported that,

‘For a long time now I have been of the opinion that the teaching of English should be through Māori. I know that in saying this I am up against the present directors of our system’ (Simon et al., 1998, p. 75).
Teachers of that time can be viewed today as the predecessors of the ‘New Zealand’ approach to the teaching of literacy. They were practitioners at the chalk face of the Native Schools system who witnessed the alienation of many Māori children from the literacy process.

‘When it came to historical things for New Zealand, they were taught according to what was in print at that time. So there wasn’t really anything. For instance... wars were Māori Wars – not Land Wars. Massacres were massacres when the Pākehā were beaten. It wasn’t a massacre when Māori were beaten’ (Māori pupil at Ngaiotonga Native School, 1948-53), (Simon et al., 1998, p. 100).

The continuing literacy debate in New Zealand today is much like the influence exerted by the ‘reading wars’ in the United States in the 1940s and 1950s – the public and political loss of confidence in the teaching profession and the education system, and the ‘standards’ crisis. Except that currently in Aotearoa/ New Zealand literacy practices have extended beyond mechanical and technical frameworks to take into account the complex cultural contexts now represented as an integral part of the fabric of New Zealand society.

Bilingual education research has informed teachers in Kura, as well as other educators in schools administering bilingual or full language immersion contexts in Aotearoa New Zealand, about second-language learning models. However, the result has tended to be increased educator familiarity with learning English as a second language. The Welsh experience (Baker, 2001) also explains the reverse situation of learning an indigenous language as a second language in a societal environment dominated by the English language. One model somewhat reflects the writer’s childhood position, that is, language learning with native- or Mother-tongue speakers using the first language to assist oral and written language competence in the second language.

In all but exceptional cases Māori learners of the Māori language had been raised as English language speakers from the 1960s onwards. Often adults in households spoke Maori to adults but not the children. In general, in the more recent cases of
exception, children and their parents together attended first the pre-school Kōhanga Reo (the Language Nests), from the early 1980s followed by primary education at Kura Kaupapa Māori from 1985. Kōhanga Reo and Kura Kaupapa Māori were created as a direct result of political exertion by Māori to regenerate te reo Māori, and the need to recognize te reo Māori as the language of instruction in schooling for Māori. Much like their predecessors of the 1800s, parents attend Kōhanga Reo and Kura with their children too.

Baker (2001), Fishman (1991), and Hohepa (1999) state that literacy instruction performs a major role in the regeneration of endangered indigenous languages. Schooling through the medium of an indigenous language is a critical factor in language retention and regeneration (Hohepa & McNaughton, 2002). Hohepa’s (1999) study explored the fundamental role of whānau, and ways in which the Kura might support language regeneration through the extension of literacy practices such as sharing Māori language texts in the home. The potential for such practice is not limited to language regeneration. Reading together has potential for both child and adult, for example, the positive development of book practices (Hohepa, 1999), learning to play with language and comprehend text as a social activity (Cazden, 1981), as well as building background knowledge (Pearson & Camperell, 1981) amongst other comprehension related skills, during the course of reading in the intimate (or chaotic) moments in the daily lives of families.

The 2001 New Zealand Census\(^4\) and the Māori Language Survey (MLS)\(^5\) released their summary of findings in three main areas: te reo in the community, te reo within whānau, and provision for te reo, regarding the Health of the Māori Language in different areas in Aotearoa/ New Zealand, including Tai Tokerau. Both the New Zealand Census and the Maori Language Survey findings concurred that about one third of the adult population (12,000 of 40,000 people over 15 years of age) in Tai Tokerau were able to converse in Māori.

The Māori Language Survey identified however, that te reo Māori was not the everyday language for most families. Research into minority languages suggests

\(^4\) [www.stats.govt.nz](http://www.stats.govt.nz)
\(^5\) [www.tpk.govt.nz](http://www.tpk.govt.nz)
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that such languages must be spoken in both the home and the community to ensure their survival as living, modern-day languages (Fishman, 1991). If the process of language shift began at home the potential for speaking the language in normal family life could increase. The power to protect te reo Māori lies within the bounds of the traditions practised by families in their homes and shared in a range of community and other family contexts (Hohepa, 1999).

Māori language exposure is achieved also through Māori radio and the Māori television channel which provides for about ninety-four per cent of Māori adults in Tai Tokerau. Mainstream radio and television in Aotearoa New Zealand are also beginning to use te reo Māori during normal transmission which are often limited to greetings or farewells. A significant Māori cultural event may be programmed in the mainstream media such as, for example, the death of a prominent leader in which case the programme is broadcast or telecast bilingually in te reo Māori and English.

At the commencement of the study the 2001 New Zealand census showed that fifty-one Tai Tokerau schools provided education in te reo Māori for about 2800 students. Of that number 517 students attended in nine Kura spread throughout Tai Tokerau. Kura were identified by the Māori Language Survey as sites for Māori language revitalisation in addition to the whānau and the community. However, societal goals continue to reinforce the need to be bi-literate and bi-lingual. The current expectation is that students educated in Kura will at some stage in their educational experience face the inevitability of exposure to literacy in another language, mainly English, in both subject and curriculum content. But even this perception has the potential for change as Kura partnerships in education begin the process of creating academically and culturally appropriate subject and curriculum content in te reo Māori.

However, relatively little research focuses on the systematic examination of patterns of Māori language literacy development in Kura Kaupapa Māori. Leading researchers in Māori-medium literacy have expressed concerns that in the absence of systematic literacy and language research conducted in Māori medium settings, there is a danger that teaching and learning, and professional and resource
development within these contexts will be largely informed by English-medium or first language/monolingual teaching approaches, knowledge and understandings (Crombie, Houia, & Reedy, 2000; McNaughton, Lai et al., 2004; Rau, 2001).

1.2.13 Standardised Diagnostic Assessment Procedures in te reo Māori

At the time of the study a dearth of assessment tools, three standardized, norm-referenced comprehension assessments were available in te reo Māori. Reading assessments in Aotearoa New Zealand, administered in English-medium classrooms, were sometimes used as locally-translated te reo Māori assessments in Kura Kaupapa Māori to profile the reading comprehension achievement of students. Translations and therefore assessment practices often varied from Kura Kaupapa Māori to Kura Kaupapa Māori throughout the Tai Tokerau. The current study is one such contribution to the development of the te reo Māori assessment-for-comprehension process in an attempt to minimise both assessment and instructional variation in Kura Kaupapa Māori classrooms.

Three assessment procedures in te reo Māori that provide descriptions of literacy (and numeracy) achievement in the early primary school years are:

- Aromatawai Urunga a Kura: AKA/ SEA School Entry Assessment (Ministry of Education, 1999) procedure is a criterion-based assessment used on entry to school when the language of instruction is te reo Māori;

- He Mātai Āta Titiro Matatupu ki te Tutukitanga Pānui, Tuhi: The Maori Reconstruction of an Observation Survey of Early Literacy Development by Marie Clay (Rau, 1998a) is the Six Year net for children whose language of instruction is te reo Māori; and,

- He Pūnaha mō te Whakaako me te Ako: the Assessment Tools for Teaching and Learning (asTTLe), are assessment tools for pānui (reading), tuhituhi (writing) and pangarau (mathematics) administered by the classroom teacher for students from Year three to Year 13 (Ministry of Education & The University of Auckland, 2003)
Other criterion-based assessments for all curriculum subjects and levels in te reo Māori are those administered only by the University of Otago (1995, 1999) for the National Education Monitoring Programme (NEMP).

**AKA: Aromatawai Urunga a Kura**

The AKA procedure, like its English-language counterpart SEA, assists teachers to gather information about the five-year old child’s literacy and numeracy ability during the first two or three weeks at Kura. The comprehension sub-test in the AKA procedure is Kī mai (Tell Me), the retell task. Retell is a criterion-referenced task consisting of four levels each of which represents the development of a plant: Te Kākano (The Seed), Te Tupu (The Shoot), Te Rea (Growth) and Te Aka (The Root).

The AKA procedure informed the development of the comprehension assessment because it is a standardised diagnostic procedure that provides an initial indication of a child’s oral response to written texts. However, descriptors for scoring literacy in AKA did not provide for discrimination of complexity of the language used by Year three and Year four students like, for example, the detail and complexity of short utterances or phrases as opposed to longer utterances or phrases which use simplistic sentence structures and vocabulary. Descriptors for the comprehension assessment were required to take into account aspects of language used to express message complexity and the technical terms of non-fiction texts. The Kī Mai (Tell Me) subtask did not provide for these aspects of language use and beyond the initial trials for the comprehension assessment its use was found to be limited.

*He Mātai Āta Titiro Matatupu ki te Tutukitanga Pānui, Tuhi (The Māori Reconstruction of an Observation Survey of early literacy development by Marie Clay)*

He Mātai Āta Titiro Matatupu ki te Tutukitanga Pānui, Tuhi developed by Marie Clay and Cath Rau (1998a) is an early literacy observation survey in te reo Māori. Comprehension-related sub-tests for the procedure include: ngā pūkete pānui haere (reading of continuous text), ngā tikanga o te tuhi kōrero (concepts about print), te
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whakamātautau kupu (sight word vocabulary), amongst others (writing, listening, hearing and recording sounds in words).

The reconstructed te reo Māori observation survey procedure provides kaiako with opportunities to record detailed accounts of what learners do as they are reading. Although the retell task is an additional task within the survey (children are invited to retell) results are not officially recorded. The observation survey was important in informing the development of the comprehension assessment (for the study) as a beginning point from which to describe examples of learner’s language-use. The specific guidelines for the retell sub-task descriptors (for the comprehension assessment) were developed as a consequence.

He Pūnaha Mō te Whakaako me te Ako (asTTle)

The asTTle project (developed in 2000) provides literacy (reading and writing) and numeracy assessment tools (from Year four through Year twelve levels) in English and te reo Māori as a part of the national monitoring strategy. The Can I Tell You Something study was concerned with the development of descriptors for productive and receptive oral language for comprehending texts in te reo Māori. The AsTTle diagnostic assessment tools are based on pen and paper tasks and were not considered for the development of the comprehension assessment.

NEMP (National Education Monitoring Programme)

The NEMP assessments for reading and writing in te reo Māori have been established since 1993. At the primary school level a random sample of students at the half-way point of primary schooling (at Year four) and those students at the end of primary schooling (Year eight) are assessed in different curriculum areas and related skills each year over a four year cycle. Flockton and Crooks’ (2001) evidence show gains in decoding but notes concern that the wide and increasing disparity in achievement on comprehension tasks persist (Lai et al., 2003). Like the asTTle diagnostic assessment, the NEMP assessments for literacy consist of pen and paper tasks.

Te reo Māori assessments such as AKA (SEA), He Mātai Āta Titiro Matatupu, asTTle and projects such as NEMP can provide teachers in Kura with snapshots of
student achievement over time but not fundamental information about instructional practices in Māori-medium contexts. The achievement of national literacy goals appear somewhat problematic given that formal procedures to gather such information for children instructed in te reo Māori at Kura had not been fully developed as an assessment priority at the time of the study.

1.2.14 Comprehension Instruction in te reo Māori in Kura
Comprehension instruction in the literature has historically been associated with expert instruction provided by expert teachers of reading in the English language. For speakers of other languages learning to read in English usually occurs at the expense of the learner’s Mother-tongue. Such research abounds but language loss is left unmentioned. The research story is often related to societal goals in which student academic achievement is measured in terms of subject and content knowledge via the medium of the English language. Inevitably, the research story often records the corollary to student achievement, that is, student failure. Bridging the reading and comprehension literature gap related to culturally and linguistically diverse classrooms in Aotearoa New Zealand is in its infancy. A growing corpus of knowledge is available, about student comprehension in mainstream schools (McNaughton, Lai et al., 2004), from Pacific nations (Toloa & McNaughton, 2005), about Māori students in mainstream, bilingual and full immersion classrooms (McNaughton, MacDonald, Farry, & The Woolf Fisher Research Centre, 2004), Māori students in Kura (Hohepa et al., 2006; Rau, 2005) and reading in homes (Hohepa, 1999).

Other research reports to the New Zealand government by the Literacy Task Force (1999) and the Literacy Experts Group (1999) focused on features of early literacy and the description of effective instruction in the early years at school. A key goal in Aotearoa New Zealand has been to understand and reduce the disparities in achievement for Māori and Pasifika students, and children in low decile schools in the first four years of schooling (McNaughton, Phillips, & MacDonald, 2003). Decile ratings for Aotearoa New Zealand schools indicate the general socio-economic level of their communities. Decile 1 schools draw the highest proportion of students from low socio-economic backgrounds. Many Kura are rated decile 1. The Literacy Taskforce (1999) report acknowledged that different procedures and
approaches for use in settings other than English-medium could be more appropriate (p.7). Additionally, Rau (2001) cautioned a strong possibility that procedures and approaches may not necessarily be defined nor measured in the same way by or for Māori-medium education as might be in English–medium contexts.

One of the most recent studies of reading comprehension in Aotearoa New Zealand was that conducted by McNaughton, Lai, MacDonald and Farry (2004) in a three-year research collaboration between researchers from the University of Auckland and South Auckland educators. The study involved six urban, decile 1 schools and more than 1500 students of low socio-economic status from communities that were culturally and linguistically diverse. The measure used was STAR, the Supplementary Tests of Assessment in Reading (Elley, 2001). McNaughton, Lai, MacDonald and Farry worked in school-based programmes in which teachers systematically collected, analysed and reported on teaching and learning data over time. Such school-based research provided the opportunity for participants to build sustainability in data collection and analysis, knowledge about student patterns of learning and achievement, and a sound basis on which to inform teacher classroom practice. However, relatively little is known about the reading comprehension of students schooled in Kura contexts as they progress from primary through to the later years.

1.2.15 Comprehension Intervention in Kura Kaupapa Māori

Researchers readily admit that they do not know enough about the process of teaching comprehension (Block et al., 2002; Sweet & Snow, 2003). It seems that if one read then comprehension was something one latched on to. We were taught reading but we caught comprehension, much like catching a cold. The research gap extends to second language teachers who are themselves second language learners of an indigenous language. Teachers practising in full immersion language settings such as Kura in Aotearoa New Zealand are, based on a fairly reasonable assumption, at least as challenged by the process of teaching comprehension as their mainstream counterparts all over the world. Block and Pressley (2002) highlight the difficulty of teaching comprehension in English. The challenge may be amplified by teaching in Kura. Reading comprehension is significant when texts
become one channel to language and vocabulary development, particularly, in an indigenous language which is the second language of the home, and also the language of instruction in the school. This is the case for the majority of students and teachers in Kura.

1.2.16 A Kaupapa Māori Framework for the Research

The essence of an embedded dimension in Māori life is the Kaupapa Māori philosophy and theory (Smith, 1992; 1995; 1997). It is the phenomenon described by Linda Smith (1999) as ‘the Māori way of thinking’ and ‘the Māori way of doing’ (p.188). The Kaupapa Māori theory and philosophy is the principle of right through which cultural aspirations, practices and preferences may be asserted. Kura Kaupapa Māori schooling in legislation is one such assertion. Kaupapa Māori theory also seeks to explain structures of power or subordination and how these might be addressed. Kura Kaupapa Māori contexts are concerned with sharing power and therefore comprises of a range of connections between teachers, learners, and whānau of both immediate and extended families. In Kura the term whānau is defined more broadly than the definition assumed by the general notion of the nuclear family. Kura may comprise of complete whānau structures such as te whānau o te Kura (the families of the school) but may extend as a further sub-set into a range of relationships determined by the task, for example, whānau kaiako (teachers), whānau hākinakina (sport), whānau manaaki (hospitality), whānau āwhina (helpers) and the like. To every experience is a dedicated whānau structure determined by individual Kura.

To this end whānau can be conceptualised as a part of a methodology (Smith, 1999), and researchers a part of the whānau construct. The researcher in Kaupapa Māori philosophy is significant in Kura schooling because the building of experience is central to the analysis of power relations. The Kura educational context may be considered a range of experiences upon which we build. It is an approach conceptualised as the process of ‘storying and re-storying’ (Bishop & Glynn, 2000: p.5), learning from shared experience which provides the foundation that gives voice to kaiako, whānau Kura and researchers. Kaupapa Māori philosophy and theory is significant within the Can I Tell You Something study because the issues of power and control remain with the Kura, the whānau and the
teachers. When teachers, parents, care-givers and Board members signed consents to participate in the study, the consent was on behalf of all whānau which could include the cleaner, the caretaker, the gardener and bus-drivers. The issue of participation and who has the right to know is identified as an issue that runs counter to the empirical and scientific notions of ‘proper’ research.

Other aspects addressed by Kaupapa Māori theory and philosophy in the research related to methodological issues such as concerns that Māori people are participants as researcher and the researched in the study of Māori people; that the sharing of the processes is inclusive of people beyond those intimately involved (that is, the researcher, the teachers and their students) but that the study still required legitimating by Kura tumuaki (Principal) and the teaching whānau (kaiako); that the participants exercised power and control of their own knowledge, intellectual property rights and the knowledge and benefits that accrued; and that the accountability for the study was directly to the whānau and its community of learners (Bishop & Glynn, 2000; Smith, 1992; 1995). The aspect regarding the rarity of capturing moments of time of a language in regeneration (Hohepa, 1999) during the study concerned the community of interest particularly the destruction of audio recordings that contained the Māori language employed by students and teachers on the completion of the study. The ethics application for the research stated that audio recordings would be preserved for reference purposes in the future.

Kaupapa Māori theory and philosophy is identified as the methodological approach adopted in the study. Such a theory and philosophy provides to Kura and whānau an assurance that the cultural and academic protocols and cultural and academic rigour of the research are observed because such aspects too are an integral part of the Kaupapa Māori theory and philosophy.

**Summary**

The *Can I Tell You Something* research is an exploratory and descriptive longitudinal cross-section study consisting of quantitative and qualitative analyses. The educational settings for the study are specific Kura Kaupapa Māori in Tai Tokerau.
In Part I of Chapter One the background to the study and the structure of the thesis was presented. The literature review contained in Part II (Chapter One) commenced with the positing of key questions under exploration. The literature review identified three central themes which were significant for the study.

Firstly, theories generally suggest that text comprehension requires both the extraction and the construction of meaning (Block & Pressley, 2002; Sweet & Snow, 2002) which are thought to be contained in both large and small units of meaning (Kinstch, 1974; Kintsch, 1998; Kintsch & van Dijk, 1978). The literature review identified comprehension strategies and processes that readers could utilise in different ways in order to extract meaning (Guthrie, 1981a; McNaughton, Lai et al., 2004). Some of the more successful and widely-used strategies include retell (Francis & Reyhner, 2002), recall (Palinscar & Brown, 1984; Peters & Levin, 1986), inferencing (Pearson & Duke, 2002), vocabulary in context (Gough, 1984; Stanovich, 2000), background knowledge and sequencing text content (Jenkins & Pany, 1981) amongst others. In programmes of learning for speakers of languages other than English the cloze strategy has been widely used (Urquhart & Weir, 1998). The literature review also suggested that teacher knowledge relevant to instructional strategy (Francis & Reyhner, 2002; G. Garcia, 2002; M Pressley, 2002) and process (Guthrie, 1981a; Ivey, 2002; Lai, McNaughton, Amituanai-Toloa, Turner, & Hsiao, 2009; D Pearson & Camperell, 1981) is significant in influencing how comprehenders learn and how such knowledge could be linked to teacher instruction.

Secondly, the Kura Kaupapa Māori educational context is a new area of study. We know very little about what goes on in comprehension instruction, let alone comprehension assessment or comprehension intervention or strategic comprehension instruction in Kura Kaupapa Māori. The literature in such contexts is scant. Standardised diagnostic reading assessments in te reo Māori are scarce. The development of assessments for use in diverse contexts is imperative when linking student data to instructional data (Lai et al., 2003) particularly when decisions about future instruction are made about the reader’s comprehension pathway, like for example, what was learned, what needs to learn be learned and
what the next steps might be. The Kaupapa Māori theory and philosophy ensured the integrity of the study.

Finally, the literature review highlighted the notion that the acquisition of good comprehension skill is acquired over time (Block & Pressley, 2002). There appears to be no justifiable reason why comprehension could not be taught in the early primary school years (Pearson & Duke, 2002), the earlier the better. Comprehension strategy should and can be taught in the early years of primary school.

In the following chapter the methods for the study are described. The key questions are restated. The design for the methodology while shaped by the three key questions under exploration describes the participants, the development of the comprehension assessment, the data collection and analysis for student assessments and the collection and analysis of teacher instruction and intervention data in five participating Kura Kaupapa Māori.
Chapter Two
Methods

‘It’s all very simple... In text... and illustration I merely drop to their level. What they do, I convey. How they draw, I draw and how they speak I write. Their own medium in meaning, line, colour and word. That’s all there is to it. Simple’ (Ashton-Warner, 1958, p. 208).

Introduction

Sylvia Ashton-Warner is credited with the development of ‘organic teaching’ in Aotearoa New Zealand. She worked in rural areas populated by Māori people and taught the infant class. Ashton-Warner could be appended to the list of bilingual teachers in Aotearoa New Zealand. Like Ashton-Warner’s, the methodology is rather an organic journey.

The methodology section describes the teacher intervention, that is, what was observed during classroom teaching by linking to student data. The method descriptions include the participants, the development of the comprehension assessment and the data collection and analysis for student assessments and teaching instruction. The section commences by restating the three key questions pertaining to the profiling student of reading comprehension, teacher instruction, and strategic comprehension intervention. It is contained in five sections as follows:

- the participants, that is, Kura (schools), tauira (students), and kaiako (teachers);
- the comprehension assessment, that is, the texts, the sub-tasks and assessment criteria;
- comprehension instruction as described by teachers and observed in video recordings of classroom teaching at baseline and intervention;
- the intervention including the observed teacher exchanges, and ratings (including the reliability of inter-rater agreements); and,
- reporting to the Kura communities.

The methods for each section are described in conjunction with the contents and design for the section.

2.1.0 The Key Questions

The context for analysis was the collection of data from student assessments and observations of classroom teaching. The data collection occurred in two parts over
two years. The first part was to collect student assessment data for Year three and Year four students and to simultaneously observe classroom teaching of comprehension in the classroom setting. The second part was collating and analysing the associations and links between the instructional data and student assessment data to begin to explore a one-year intervention of teacher professional development in comprehension instruction. Instructional data was filmed (by video) in planned classroom teaching observations. Student data was collected orally using the comprehension assessment developed for the research.

Three key questions were explored. First, what are the patterns of achievement in comprehension for Year three and Year four tauira in Māori language immersion settings? The question called for a description of the assessments available and in use in Aotearoa New Zealand and the analysis of the patterns of comprehension achievement for tauira in Kura Kaupapa Māori contexts. The absence of a comprehension assessment measure for students’ spoken (oral) te reo Māori meant the development of a preliminary measure for the study. However, it is noted that asTTLe pānui (reading and comprehension sub-task assessments) were available as pen and paper tasks. The second question related to kaiako comprehension instruction and tauira comprehension learning in Kura Kaupapa Māori contexts was: How do kaiako teach comprehension in Kura contexts when using non-fiction Māori language texts? The question required the description and analysis of patterns of kaiako exchanges during the course of instruction in Kura contexts so that effective instruction (or otherwise) could be identified. The third question explored the development of kaiako professional knowledge about comprehension before, during and after instruction and the effect of a professional development intervention on increasing the effectiveness of instruction. What was the effect of the professional development on kaiako and on tauira? Kura Kaupapa Māori teachers have become accustomed to attending professional development out of Kura, often delivered in the English language with a focus on English-medium schooling. What would happen if they controlled their own professional learning at Kura, focused on te reo Māori as the medium of instruction for learning and teaching?
2.1.1 Ethics Approval

The University of Auckland Human Ethics Committee approval (Reference 2003/388) for the research comprised of participant information and consent forms for Principals and Boards of Trustees, Parents/Guardians and teacher participants. The approval included a confidentiality agreement for transcribers. Clear statements regarding the security of consent forms and participant information, the project title, the researchers, explanation of the research, the consent and withdrawal process, privacy and confidentiality requirements, and restrictions regarding the future use of data. The contact address and phone number for the project leader were available. All relevant information was available in English language and te reo Māori texts.

At a meeting of the Principals of all Kura Kaupapa Māori in Tai Tokerau, in December 2003, preliminary discussion and presentation of ideas regarding the exploration of the possible research focus took place and preceded any formal work. Topics of discussion included Kura making decisions about: specific participants, for example, which Kura, kaiako (teachers) and tauira (students), which year groups; questions about consents and withdrawals, security and access to information. An over-riding concern was that individual Kura would not be identified and that the protection of the privacy of Kura, kaiako and tauira was assured. Kura were particularly supportive of the fact that the researchers, the main supervisor, the research assistants and transcribers were of Ngāpuhi descent and that the language and manner of reporting the research were sensitive to the Māori way (G.H. Smith, 1997; L. Smith, 1999). Kura, in essence, questioned the researcher about all aspects of the research in response to the information which was made available to them.

Researchers attended the February 2004 meeting of Te Rūnanga o Ngā Kura Kaupapa Māori o Tai Tokerau (The Council of Kura Kaupapa Māori in Tai Tokerau). Two members of Te Rūnanga o Nga Kura Kaupapa Māori o Aotearoa (The Council of Kura Kaupapa Māori of New Zealand) were in attendance. A full description (using relevant documentation) of the ethics approval for the study, the purpose and the duration of the study, the participants, the consent and withdrawal process, special requirements for the study, and the report back time-line was presented (followed by a lively question and answer section).
Each Kura confirmed the despatch and collection of participant information and consent forms by an agreed date (four weeks from the meeting date). Researchers were available to attend whānau meetings. Each Kura verified and confirmed student enrolments and identified students with special needs. Each Kura confirmed teacher employment and qualifications, and notified staff changes. Consents from new teachers entering the study as appropriate were obtained by each Kura. Principals (on behalf of the relevant Boards of Trustees) and Te Rūnanga o Ngā Kura Kaupapa Māori o Tai Tokerau (The Council of Kura Kaupapa Māori in Tai Tokerau) confirmed the selection of participating Kura.

2.1.1(a) The Research Advisory Group
The study required competency and fluency in te reo Māori and Māori cultural practices from all participants including researchers. Te reo Māori was a fundamental value in the study to all participants directly or indirectly involved in or connected to the study. Māori practices, values and beliefs and knowledge about them were an integral part of the study.

The Research Advisory Group for the study comprised of three University-based researchers who had whakapapa (genealogical) links and kinship ties to Tai Tokerau, and iwi (tribal) elders. All three researchers had either worked in/ or have children who are graduates of Kura Kaupapa Māori, have a commitment to schooling in Māori language contexts and te reo Māori regeneration. Advisory Group membership also included four other university-based researchers from three different New Zealand universities.

2.1.1(b) Ngā Kura (The Schools)
The locations of the Kura Kaupapa Māori in the research study roughly align with the geographical locations of the mountains (see Table 1). Informed consent was granted by the Boards of Trustees and Principals of five Kura to participate in the study. Formal participation was determined by the Kura Principals at the annual meeting of their regional council (Te Rūnanga o ngā Kura Kaupapa Māori o Te Tai Tokerau), underscored with the resolve that the two types of Kura in the region would be represented.
The first two were Kura tuakana, literally ‘the elder Kura’ that were already performing a mentoring role. These Kura tuakana had attained official Kura Kaupapa Māori status under Section 155 of the New Zealand Education Act 1989. The second type were three Kura teina (literally ‘the junior’ or Kura being mentored by an established Kura Kaupapa Māori) who were awaiting official full-status designation a process requiring the approval of the New Zealand Minister of Education and could take a minimum of two years and up to five years or more. All Kura teina had attained official status under section 155 of the Education Act 1989, at the commencement of Time 3 & Time 4 (2005) of the research. Participating Kura were self-selected, and agreed that the progress of, and all results from the research be shared between Kura in the region.

For the purposes of this research, participating Kura were identified as either large (260+ students, by New Zealand standards all participating Kura Kaupapa Māori were small schools) or small (30 students or less) – see Table 1. Since staffing ratios in New Zealand schools are determined by the number of student enrolments (therefore more students equal more staff), large Kura had designated teachers who taught specific year levels. In small Kura however, teachers taught in composite classes – often across more than two different year levels.

<table>
<thead>
<tr>
<th>Ngā Kura</th>
<th>2004 Baseline</th>
<th>2005 Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time 1 &amp; Time 2</td>
<td>Time 3 &amp; Time 4</td>
</tr>
<tr>
<td>Large</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Small</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 1: Ngā Kura

2.1.1(c) Ngā Tauira (The Students)

Year Three Tauira

Year three tauira were in their third year of compulsory schooling at the commencement of the Aotearoa/ New Zealand primary school year.

A total of 42 parental ethical consents for Year three tauira were collected. February 2004 (Time 1) data was collected from 34 tauira and November (Time 2) data was collected from 27 tauira, a total of 61 tauira comprehension assessment data at baseline (February and November 2004 respectively). However, of the total number
27 matched sets of data for Year three tauira was collected for analysis. Baseline data was incomplete because one Kura closure occurred (and in most cases tauira moved to other schools) or tauira were absent or lost from the study as the result of tauira or family mobility (Lai, McNaughton, Amituanai-Toloa, Turner, Hsiao 2009).

The first group of Year three students formed Year three Cohort 1 (see Table 2). Altogether, a total of 55 tauira comprehension assessment data was collected in the intervention year. In February 2005 (Time 3) data was collected from 27 tauira. In November (Time 4) data was collected from 28 tauira. Of the total number, 27 matched sets of Year three tauira data was used for analysis. Intervention data was incomplete largely because of tauira absence, or tauira or family mobility. The second group of Year three students formed Year three Cohort 2 (see Table 2).

<table>
<thead>
<tr>
<th>Ngā Tauira Year Three</th>
<th>2004 Baseline</th>
<th>2005 Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3 Cohort</td>
<td>Time 1</td>
<td>Time 2</td>
</tr>
<tr>
<td>1</td>
<td>27</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 2: Ngā Tauira Year Three

While the incomplete sets of data were not used in the study for analysis purposes the data were retained for the purpose of reporting back to kaiako, Kura and whānau. One Year three student was identified as having special speech and language needs by Group Special Education (of the New Zealand Ministry of Education). The student’s whānau (family) maintained contact with a Speech Language therapist.

**Year Four Tauira**

Year four tauira were students in their fourth year of compulsory schooling at the commencement of the (Aotearoa/ New Zealand) primary school year.

A total of 68 tauira comprehension assessment data was collected in the baseline year (February and November 2004 respectively). Thirty-eight parental ethical consents for Year four tauira were collected. At Time 1 (February) data was collected from 38 tauira. At Time 2 (November) data was collected from 30 tauira. Of the total number 27 matched sets of data for Year four tauira were used for the purposes of analysis.
Baseline data was incomplete mainly because one Kura closure occurred (and in most cases tauira moved to other schools) or tauira were absent or lost from the study as the result of tauira or family mobility. This first group of Year four students formed Year four Cohort 1 (see Table 2).

A total of 53 tauira comprehension assessment data was collected in the intervention year (February and November 2005 respectively). At Time 3 (February) data was collected from 27 tauira. At Time 4 (November) data was collected from 26 tauira. A total number of 26 complete sets of Year four tauira data were used for analysis. Data from the intervention year was incomplete largely because of tauira or family mobility (see Table 3).

<table>
<thead>
<tr>
<th>Ngā Tauira Year Four</th>
<th>2004 Baseline</th>
<th>2005 Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>Time 2</td>
<td>Time 3</td>
</tr>
<tr>
<td>February</td>
<td>November</td>
<td>February</td>
</tr>
<tr>
<td>Year 4 Cohort 1</td>
<td>Year 4 Cohort 1</td>
<td>Year 4 Cohort 2</td>
</tr>
<tr>
<td>27</td>
<td>27</td>
<td>26</td>
</tr>
</tbody>
</table>

Table 3: Ngā Tauira Year Four

The second group of Year four students formed Year four Cohort 2, and were originally the first cohort of Year three students at Time 1 of the study. While the incomplete sets of data were not used for analysis purposes in the study the data were retained for the purpose of reporting back to individual Kura.

Screening

No standardised reading or comprehension tests were readily available in te reo Māori at the commencement of the research that included the use of spoken Māori. However, the participating Kura Kaupapa Māori used the running record (Rau, 1998a) to identify student instructional levels. At Year three and Year four, the instructional texts recommended by the Ngā Kete Kōrero framework (Ministry of Maori Development, 1996) were identified as Pingao, and Miro and their respective sub-levels (see ‘The Texts’ section of this chapter).

The second group of Year 4 students (at Time 3, 2005) were Cohort 1 of Year three students in 2004.
Māori language regeneration (Hohepa, 1999) is a key purpose of Kura, another the achievement of all students. All tauira spoke te reo Māori no matter what the level of proficiency and was used by tauira in class, at play and in general conversation. All student assessments were administered using te reo Māori only. Individual Kura identified student participants with special needs as appropriate.

2.1.1(d) Total Tauira Assessments
A total of 108 Year three assessments and a total of 106 Year four assessments were administered and scored across the two-year study (see Table 4).

<table>
<thead>
<tr>
<th>Total Tauira Assessments</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 2004 Baseline</td>
<td>27</td>
<td>27</td>
<td>Time 3</td>
<td>27</td>
</tr>
<tr>
<td>Total 2005 Intervention</td>
<td>54</td>
<td>54</td>
<td>Time 4</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>54</td>
<td>Total</td>
<td>54</td>
</tr>
</tbody>
</table>

Table 4: Total Tauira Assessments

2.1.1(e) Ngā Kaiako (The Teachers)
Informed consents were collected from fifteen self-selected teachers. Eight teachers were consistently involved in the study from beginning to end (two teachers in Year three classes, two in Year four and four teachers in composite Year three and Year four classes). The remaining teachers joined at some point during the study. For example, one Kura experienced a complete change of staff (of four teachers). At the transition, participant information was discussed and ethical consents were collected from the new kaiako concerned. Although kaiako data were unavailable from that Kura at Time 2 tauira assessment data was still collected. At one other Kura, teacher data was unavailable at Time 3 because Year three and Year four classes were taught by relief teachers. However, the collection of tauira assessment data continued.

All kaiako had the Diploma of Teaching qualification. One teacher held a Bachelor of Education (Teaching) and one other a Master of Arts (Māori Education). Two teachers were native speakers and the remainder were second language learners of te reo Māori. Of eight teachers, four were provisionally registered to teach in New Zealand (that is, teaching experience was less than two years). At the conclusion of the research, two provisionally registered teachers gained full registration. The
remaining (four) teachers were fully registered teachers with an accumulated teaching experience of over 45 years. Two teachers began their careers in Kura whilst the remainder had experience in a variety of mainstream as well as bilingual and full immersion classes in mainstream settings. The background and experience of kaiako participants is shown in Table 5.

<table>
<thead>
<tr>
<th>Class Year Level</th>
<th>Teacher Education Medium</th>
<th>Gender</th>
<th>Teaching Experience (Yrs)</th>
<th>KKM Experience (Yrs)</th>
<th>Years at Current Level</th>
<th>Māori 1st or 2nd Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3</td>
<td>English</td>
<td>F</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3</td>
<td>Māori</td>
<td>F</td>
<td>Reliever</td>
<td>4</td>
<td>2</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3</td>
<td>English</td>
<td>F</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>English</td>
<td>F</td>
<td>20</td>
<td>4</td>
<td>4</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>Māori</td>
<td>M</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>L1</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>English</td>
<td>F</td>
<td>25</td>
<td>7</td>
<td>7</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>English</td>
<td>F</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>Māori</td>
<td>M</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>L1</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>English</td>
<td>F</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>English</td>
<td>F</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>English</td>
<td>F</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>L2</td>
</tr>
<tr>
<td>Year 3-4</td>
<td>Māori</td>
<td>F</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>L2</td>
</tr>
<tr>
<td>Year 4</td>
<td>Māori</td>
<td>M</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>L2</td>
</tr>
</tbody>
</table>

Table 5: Kaiako Background and Experience

At one Kura the entire staff (of four teachers) changed from the baseline to the intervention phase.

Year Three Kaiako

In February 2004 (Time 1) two teachers taught Year three classes. One class was taught by a relief teacher. Four teachers, two of whom practised in a team-teaching situation, taught composite Year three and Year four classes. At Time 2 three staffing changes occurred at two Kura. At Time 3 one staffing change occurred in one Kura. At Time 4 one staffing change occurred in one Kura.

Year Four Kaiako

Kaiako participation by year level and time-points in the research is summarised in Table 6.
At Time 1 two teachers taught Year four classes. Four teachers taught composite classes. Two staffing changes occurred at one Kura (Time 2) and one occurred at two Kura (at Time 3 and Time 4).

2.1.1(f) The Research Baseline and Intervention Time-line

Professional development has been defined by Little (1992 cited by Dole, 2003) as ‘activities to help teachers improve their instruction’ (p.177). The programme of intervention incorporating teacher professional development began at Time 3 (February 2005) and concluded at Time 4 (November 2005). The programme consisted of three sections (see Table 7):

1. The baseline year (Time 1 and Time 2) which included the one-on-one data collection pre- and post-observations of classroom teaching which provided valuable time for researcher and individual teacher discussion. Researcher contact during the baseline was maintained at both the kaiako collective level (for data report back) and the individual kaiako level (for kaiako questions or information pertaining to comprehension instruction in the classroom). During this section kaiako engaged in professional development as whole-staff discussion about comprehension instruction and on request for further information from the researcher.

2. The baseline report back sessions; and,

3. The intervention year (Time 3 and Time 4). One data report back session combined with the kaiako workshop at Time 3. Comprehension instructional strategies specific to the comprehension assessment were introduced, discussed, planned, trialled and re-developed in small groups (comprised of teachers, support staff, children and whanau from each Kura) prior to implementation in classrooms at the commencement of the 2005 academic year.

<table>
<thead>
<tr>
<th>Ngā Kaiako</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1 &amp; Time 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Y4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Y3/4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 6: Ngā Kaiako
A total of five reporting and feedback sessions were conducted at planned points throughout the study. Discussion sessions with kaiako occurred informally at the school lunch hour or more usually after school closed for the day. The sessions usually began at about 3.15pm and concluded about one to one and a half hours later. The opportunity was the first for kaiako to engage in literacy (and its assessment) professional development as individuals and as colleagues in Kura Kaupapa Māori from Te Tai Tokerau.

Table 7: The Research Baseline and Intervention Time-line

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline Data Collection</strong></td>
<td><strong>Report Back Sessions and Teacher Workshops</strong></td>
<td><strong>Intervention Data Collection</strong></td>
</tr>
<tr>
<td><strong>Time 1</strong> February 2004</td>
<td><strong>Time 2</strong> November 2004</td>
<td><strong>Time 3</strong> February 2005</td>
</tr>
</tbody>
</table>

Data analysis – student data Time 1

Data analysis – teacher data – Time 1

Report back and discussion: July

Data analysis – student data Time 2

Data analysis – teacher data - Time 2

Report back and discussion: October

Data analysis – student data Time 3

Data analysis – teacher data - Time 3

Report back and discussion: October

Data analysis – student data Time 4

Data analysis – teacher data – Time 4

Report back and discussion:

The process provided opportunity for feedback between colleagues (about kaiako instructional data and tauira data) in a supportive environment. Kaiako could reflect on the feedback from colleagues and whānau and as a collective consider some of the implications of the data for future instruction. How teachers might improve instruction to ensure that students become proficient comprehenders requires
learning about the comprehension process and understanding what students need to know and do (Darling-Hammond & MacLaughlin, 1999 cited in Dole, 2003: p.180) particularly how instruction must focus on text meaning. To this end a selection of sub-task activities from the comprehension assessment (retell, recall, inferencing, vocabulary in context, vocabulary meanings and cloze) formed the focus for the creation and trial in small groups. What is now known is that successful interventions that impact on teacher instruction take time even with expert guidance and advice (Guthrie, 2003; McNaughton, Lai et al., 2004; Palinscar & Brown, 1984).

The whānau approach to potentially improving literacy instruction (Hohepa, 1999) particularly comprehension was an information-sharing process (Morrow et al., 2003). All interviews, discussion and feedback were conducted within a Kaupapa Māori philosophy. Other studies conducted in Aotearoa New Zealand (Lai et al., 2003; McNaughton, Lai et al., 2004) have confirmed the potential for change when researchers and educators collaborate to talk about their work.

2.1.2 Non-Fiction Texts

The development of materials required to construct and administer the student comprehension assessment were developed collaboratively and in conjunction with another similar project (Hohepa et al., 2006). The work began about eight weeks prior to the Time 1 data collection. The first task was to find suitable texts. A manual search was conducted in the reading resource room of one large Kura for Māori language texts at the appropriate year level.

In accordance with many reading standardised diagnostic assessments the texts for tauira were unseen, new texts that students had not encountered in instructional reading. Texts were selected from the range of te reo Māori readers freely available to all Kura through the Aotearoa New Zealand Ministry of Education. Texts were graded in accordance with the Ngā Kete Kōrero framework (‘the framework’) in a study conducted by the New Zealand Ministry of Māori Development (1996) which assigned primary school reading material written in Māori into levels of increasing difficulty.

The framework acknowledged four clear, yet overlapping, stages:
Kete Harakeke, the emergent reading stage in which three sub-levels (Kha, Khe, Khi); were identified;
Kete Kiekie, the early reading stage in which three sub-levels (Kka, Kke, Kki) were identified;
Kete Pīngao, the early fluency stage in which four sub-levels were (Kpa, Kpe, Kpi, Kpo) identified; and,
Kete Miro, the fluency stage (in which sub-levels have yet to be identified).

Subsequently an additional level Kete Whatu (Rau, 2002) the independent reading stage has emerged. Some recent evidence available cites the framework stages identified above have been set too high (Ngā Whanaketanga Rūmaki Māori - Māori-medium National Standards, in press, to be trialled in 2010).

Texts at Kete Harakeke, the emergent reading stage are generally but not exclusively used from Year one (five-year old, new entrants in Aotearoa New Zealand schools), Kete Kiekie at Year one and Year two (the early reading stage), Kete Pīngao at Year two and Year three (the early fluency stage), and Kete Miro at Year three and Year four (the fluency reading stage). It is to be noted however, that the reading stage and year level suggested above match is indicative only and not intended as an absolute reading stage or year level match.

Of 159 Pingao texts available (as at December 2003) the distributions within the level were: 52 at Pingao A; 56 at Pingao E; 27 at Pingao I; and, 24 at Pingao O. The 89 Miro texts were distributed within more informal categories of approximately 68 different themes which included 21 titled chapter books like, for example, the Whakawhiti Series. Of the total number of texts available in the Whatu series the distributions within the level were: Te Kohikohinga (40); Ngā Kōrero (46); Te Tautoko (40); and, Te Wharekura (42). On average the Te Kohikohinga and Ngā Kōrero series contained a selection of six different articles, stories or poems; early editions of the Te Tautoko and Te Wharekura series contained on average a selection of six to eight articles, stories or poems; and recent editions of Te Tautoko and Te Wharekura all contained six to eight stories or articles based on a main theme. All these instructional materials written in te reo Māori (some have since gone out of press) were available free to all Kura at the time of the study. These instructional
material is produced by Te Pou Taki Kōrero (formerly Learning Media) and publications branch of the New Zealand Ministry of Education.

A selection of twelve non-fiction texts each contained an average count of 278 words. The highest word count (376) was at Whatu level, the lowest (161) at Pīngao level. The word count was considered ideal if a reading could be achieved within three minutes, the permissible testing time for the He Iti Rearea assessment – the reconstruction of the reading running record assessment conducted in te reo Māori in which a child is visual- or audio-recorded reading out loud for a period of three-minutes. The results are analysed for reading accuracy, reading error rates and provide a guide to instructional level.

Timed trials were conducted with students who were not a part of the study, and one native-speaker of the Research Advisory Group. The trials (which took 5 minutes for reading (pānui) text; 20 minutes to complete questions orally, and the cloze sub-task was not completed) supported the correspondence between the text selections and the text difficulty at the Year three and the Year four levels. All texts contained some picture cues – most at Pīngao, with the least at Whatu level. Topics were divided equally between reports (6/12), and science and technology (6/12) themes.

Non-fiction texts used for student assessments were drawn from Pīngao (Year 3), and Miro (Year 4) reading levels. The selections for the Year three comprised two information texts whilst those for the Year four comprised of one information text, and one report text. Of these texts, three were (Māori) translations of an original English text, and one was originally written in Māori. Texts used for the comprehension assessment (see Table 8).

Texts were coded by year group (3 or 4), and assessment time (A or E). For Year three data collection Text 3A (Anderson, 2001) was used at Time 1 and Time 3 whilst Text 3E (Te Roopu a Huia, 1998) was used at Time 2 and Time 4. For Year four data collection, Text 4A (Everitt, 1998) was used at Time 1 and Time 3 whilst Text 4A (Bollanack, 1996). Children read from a particular text just once.

<table>
<thead>
<tr>
<th>The Non-fiction Text Selections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
As texts for the assessments were selected the separate sub-tasks for assessment were identified and scoring and weighting for each of the sub-tasks was developed. Concurrent with the development of the reading comprehension assessment were the classroom teaching observation guidelines, the teacher discussion guidelines and the researcher scripts for student assessments and teacher discussions.

2.1.2(a) Reading Accuracy

A running record was taken for each student who read aloud to calculate reading accuracy and self-correction rates. Text difficulty was considered in terms of the balance between the support (features that make texts easy to read, such as, text layout, illustrations, sight vocabulary, decoding competence), and the challenge (features that potentially make texts difficult to read, for example, prior knowledge and content interest, range and complexity of vocabulary, text length, text syntax (the complexity and length of sentences, and number of new ideas or concepts presented) at each time point. The text-reading level match was mitigated in part by the Ngā Kete Kōrero framework for grading texts, the only measure widely available to teachers in Kura, Māori language immersion, or bilingual contexts.

The calculated accuracy and self-correction rates were not incorporated into the final scoring but were considered important in exploring some of the relationships between decoding and comprehending text, and the comprehension processing strategies that students employed. Student assessments were captured using audio-tape to minimise problems associated with scoring.

2.1.2(b) The Comprehension Assessment

The literature review identified three te reo Māori standardised diagnostic assessments that contained possible sub-tasks for the assessment of comprehension which could be used in Kura Kaupapa Māori such as: the AKA procedure (Ministry

<table>
<thead>
<tr>
<th>Year</th>
<th>Pingao Text 3A</th>
<th>Ngā Kaiota me ngā Kaikiko</th>
<th>Tūhono 1, 2001. K. Anderson</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3</td>
<td>Hangarua 3</td>
<td>Ngā Kete Kōrero, Te Rōpu a Huia.</td>
<td>161</td>
<td>Information</td>
</tr>
<tr>
<td>Year 4</td>
<td>Karengo</td>
<td>Henare Everitt, 1998.</td>
<td>235</td>
<td>Information</td>
</tr>
<tr>
<td>Year 4</td>
<td>Te Hōrua nui rawa atu o te ao.</td>
<td>Ngā Kōrero 24 John Bonallack.</td>
<td>249</td>
<td>Report</td>
</tr>
</tbody>
</table>

Table 8: The Non-fiction Text Selections
of Education, 1999); He Mātaï Āta Titiro Matatupu ki te Tutukitanga Pānui, Tuhi: The Māori Reconstruction of an Observation Survey of Early literacy procedure (Rau, 1998a); and, He Pūnaha mo te Whakaako me te Ako (asTTle) procedure (Ministry of Education & The University of Auckland, 2003) for students from Year 4 onwards through primary and onto secondary school.

What the literature review highlighted was that AKA is the school entry assessment for five-year-olds; He Mātaï Āta Titiro Matatupu ki te Tutukitanga Pānui, Tuhi for six-year-olds, and He Pūnaha mo te Whakaako me te Ako for eight-year-olds and beyond. In 2002, the New Zealand Ministry of Education (2002a) indicated that the English language version of the asTTle literacy package would be released the following year for use with students in Year five, Year six and Year seven. Kura Kaupapa Māori however, did not have access to the te reo Māori version of the asTTle literacy package at the commencement of the Can I Tell You Something study in 2004. Professional development in the administration of He Mātaï Āta Titiro Matatupu ki te Tutukitanga Pānui, Tuhi was possible through Ngā Taumatua, an initiative developed in 2002 which focused on the planning and assessment of literacy programmes but was only available to Resource Teachers of Māori (teachers who support classroom practitioners in the teaching of te reo Māori). The Can I Tell You Something study could with the assistance of Kura staff access the AKA resource kit (specifically the Kī Mai sub-task from the AKA procedure) to begin the construction of a comprehension assessment in a language proficiency sub-task for te reo Māori at Year three and Year four.

Whilst English-language medium teachers in schools in Aotearoa New Zealand can identify and use recognised standardised diagnostic procedures which can be reliably compared across all schools and across a range of levels (Lai et al., 2003) teachers in Kura do not have a wide range of diagnostic resources written in te reo Māori readily available. The few available assessments mean that Kura generally develop assessment procedures that may or may not compare reliably across Kura (Rau, 2005). The Can I Tell You Something study is a beginning in the process for the development of a comprehension assessment.
2.1.2(c) The Comprehension Sub-tasks

Comprehension sub-tasks were developed and extended with the use of information as appropriate from Kī Mai, Tell Me (Ministry of Education, 1999), He Iti Rearea (Rau & Berryman, 1998), and Te Whakapuakitanga Mā te Hoki Anō ki te Pūrakau: A Probe of Comprehension Using Retelling (Rau, 1998b). Based on some of the descriptors from these previous studies, five separate sub-tasks emerged as likely for the comprehension assessment:

1. Tāruarua (Retell, literally: repeat)
2. Maharatanga (Recall)
3. Whakataunga (Inferencing)
4. Te Whakamārama Kupu (Vocabulary meaning in context)
5. Te Whakauru Kupu Ngaro (Cloze)

All student comprehension assessment data, except the cloze sub-task, were captured on audio-tape as well as in written researcher notes.

1. Tāruarua (Retell)

Retell is defined as the restatement of the major information-structure propositions about the text (Francis & Reyhner, 2002; Garcia, 2003; Snow, 2003; Urquhart & Weir, 1998).

Research assistants, familiar with and experienced in researching in Kura Kaupapa Māori contexts in other studies prior to this research, were provided with a scripted guide for statements and questions to be posed to students for all subtasks. The script contained statements or questions for the assessment as well as a guide to appropriate student responses as identified in assessment texts. The same post-reading statement was offered at each level. This broad statement allowed for the possibility that comprehension about the content may not be the same for any two readers or any one reader going through the text more than once (Block et al., 2002).

The following example (Table 9) is taken from the Year three comprehension assessment using Text 3A (Anderson, 2001).
The minimum sub-score was 0 with the maximum score of 4. Te reo Māori was a significant sub-category given that the assessment was of the oral form, the written-oral model (Francis & Reyhner, 2002), based on the text itself as well as the graphic representations in the text.

The tāruarua (retell) sub-task scores are described in Table 10.

**Table 9: Example Year Three Tāruarua**

*Scoring Tāruarua (Retell)*

The sub-score framework for this sub-task comprised four categories: content; sequencing; te reo Māori vocabulary; and, te reo Māori grammar and structure and each category with its own complete set of assessment criteria.
Table 10: Tāruarua (Retell) Score Framework

2. Maharatanga (Recall)

Recall is defined as the identification of specific propositions directly stated in the selected text (Francis & Reyhner, 2002; Garcia, 2003; Urquhart & Weir, 1998).

Four recall questions were posed at each year level. These questions (Q) were typically forms of interrogatives. Only correct responses (R) were accepted. In addition Questions 2 and Questions 5 at each level were opportunities for researchers to formally prompt (+P) students (with the phrases ‘Ki tō whakaaro (In your opinion)’ or ‘Me pēhea i mōhio ai koe? (How do you know?)’ for questioning student sources of knowledge, for example, picture cues; re-reading; reading on; prior knowledge, knowledge from other sources. The example (in Table 11) is from the Year four comprehension assessment using Text 4A (Everitt, 1998).

<table>
<thead>
<tr>
<th>Ngā Pātai me Ngā Whakatau</th>
<th>Questions and Correct Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Pātai: Ka tupu te karengo i hea? He whakautu: (1) Runga toka (2) roto moana</td>
<td>2. Question: Where does karengo grow? Responses: (1) On rocks (2) in the sea. 0 1 2 3 M E + P Prompt: Why did you think that?</td>
</tr>
<tr>
<td>Kōrero akiaki: He aha te take i whakaaro pēnā ai koe?</td>
<td></td>
</tr>
<tr>
<td>3. Pātai: He aha i horoia ai te karengo ki te wai tai? He whakautu: Ka taka mai ngā (1) kirikiri/ (2) kota. 0 1 2 3 M E</td>
<td>3. Question: Why is karengo washed in the tide? Responses: So (it) is cleansed of (1) pebbles and (2) shells. 0 1 2 3 M E</td>
</tr>
<tr>
<td>4. Pātai: Pēhea te roa o te tunu karengo? Te whakautu: Rua haora 0 1 2 3 M.E</td>
<td>4. Question: How long does it take (for) karengo to cook? Response: Two hours 0 1 2 3 M E</td>
</tr>
<tr>
<td>5. Pātai: He aha tētahi kai hei kinaki karengo? He whakautu: (1) Paraoa parai (2) kūmara (3) pihikete pakepake me ētahi atu 0 1 2 3 M E + P Kōrero akiaki: Ki tō whakaaro he aha tētahi kai kinaki karengo?</td>
<td>5. Question: What (other) food can be consumed with karengo? Responses: (1) Fried bread (2) sweet potato (3) cracker biscuits plus name others. 0 1 2 3 M E + P Prompt: In your opinion what is one food we can eat with karengo?</td>
</tr>
</tbody>
</table>

Table 11: Example Year 4 Maharatanga (Recall)
Scoring Maharatanga (Recall)

The minimum sub-score for Maharatanga was 0 with a maximum of 3 represented by:

0 = No response. Incorrect response;
1 = Correct English response;
2 = Correct Māori or bilingual response; and,
3 = Correct contextualised Māori response.

In addition to the provision for formal prompts (at Question 2 and Question 5), six additional factors were explored: picture cues; re-reading; reading on; prior knowledge; knowledge from other sources; and, any other – developed to assist researchers identify strategies used by readers to gain meaning from texts. While the data was recorded it was not included in the final score.

3. Whakataunga (Inferences)

*Inferences* are defined as the opinionated response to propositions that are implied but *not directly stated* in the text (Francis & Reyhner, 2002; Garcia, 2003; Snow, 2003; Urquhart & Weir, 1998).

Four questions were posed at each level. The questions were prefaced with the phrases ‘Ki tō whakaaro (In your opinion)’ or ‘Me pēhea i mōhio ai koe? (How do you know?). Notwithstanding, the only appropriate responses were considered to be variations implied by: picture cues (pc); textual cues (tc); prior knowledge (pk); other sources of knowledge or experience (os); or a combination (com) there-of. As in the previous component, Questions 6 and Questions 9 at each level were opportunities for researchers to formally prompt students for their sources of knowledge (also described in the previous sub-task).

The example (in Table 12 below) is taken from the Year four comprehension assessment using Text 4A (Everitt, 1998).

<table>
<thead>
<tr>
<th>Ngā Pātai</th>
<th>Questions</th>
<th>Appropriate Responses</th>
<th>Inappropriate Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q: Me pēhea i mōhio ai koe te āhua o te rā i kohikohia ai e te whānau ngā</td>
<td>Q: How do you know what the weather was like when the family gathered karengo?</td>
<td>He rā paki (It is a fine day-pc). E mau kakahu mahana ana rātou. (They are wearing mussels).</td>
<td>E kohi kūtai ana rātou. (They are gathering mussels).</td>
</tr>
</tbody>
</table>
Table 12: Example Year 4 Questions, Response Guide. Appropriate Responses, Inappropriate Responses

Scoring Whakataunga (Inferences)
The minimum score for Whakataunga was 0 with a maximum of 3 represented by:
0 = No response. Irrelevant inference;
1 = Relevant English inference;
2 = Relevant Māori or bi-lingual inference; and,
3 = Contextualised Māori inference.

In addition to the provision for formal prompts (at Question 6 and Question 9), the additional factors were again employed by researchers to help identify strategies used by readers to gain meaning from texts. As for the previous sub-task, data was recorded but was not included in the final score.

4. Te Whakamārama Kupu (Vocabulary Meanings in Context)

Vocabulary meaning is defined as the ability to reveal the contextualised meanings of vocabulary in the text (Francis & Reyhner, 2002; Garcia, 2003; Snow, 2003; Urquhart & Weir, 1998).

Three words per text were selected at each level. The vocabulary selections for this component were made from those words included in the glossary for each text which indicated for example, the vocabulary were likely to be high interest and/or unfamiliar words.

Scoring Te Whakamārama Kupu (Vocabulary Meanings in Context)
The minimum sub-score for Te Whakamārama Kupu was 0 with a maximum of 3 represented by:
0 = No response. Incorrect meaning;
1 = Correct English meaning;
2 = Correct Māori or bi-lingual meaning; and,
3 = Correct contextualised Māori meaning.

In addition to the formal prompt (at Question 11) additional factors mentioned in the two previous sub-tasks were employed by researchers to help to identify the strategies employed by readers to gain meaning from texts. The additional data were recorded but not used for the purposes of analysis in the final score.

5. Te Whakauru Kupu Ngaro (Cloze)

*Cloze* is defined as the comprehension of ‘a mutilated sentence as a whole and completing the pattern’ (Francis & Reyhner, 2002; Urquhart & Weir, 1998). Six words were deleted from the cloze paragraph for each level. The deletions included articles, possessives, emphatic markers, nouns and adjectives. The cloze paragraphs were paraphrased versions of the text to ensure that children were using semantic and syntactic cues embedded in the text as opposed to referring back to sections straight out of the text to complete the task.

**Scoring Te Whakauru Kupu Ngaro (Cloze)**

The minimum sub-score for this component was 0 with a maximum of 6. Only one word per space was permitted. Only vocabulary that: gave sense to the overall tenor of the text; and, was consistent with the grammatical structures of the texts, were considered correct responses.

Guidance for the weighting and scoring of assessments, the final selection of texts, the assessment question formats and the assessment scripts guidance was provided by iwi (tribal) elders. All were native speakers of Māori. Some were experienced Māori language teachers. Final checks of the Māori language question formats and general Māori language content of the assessments were undertaken with Māori-speaking members of the Research Advisory Group - see section 2.1.1(a). Timely guidance and advice was received from researchers working on similar (McNaughton, Lai et al., 2004) and complementary projects (McNaughton, MacDonald, Barber, Farry, & Woodard, 2006).

**Conditions**

The time allocated for assessment was about 25 to 30 minutes per student.
2.1.2(d) Sub-task Assessment Criteria and Scores

Conventional assessment requires that performance is measured against an agreed standard. A pre-requisite agreement being that the test components are what we want to test—validity, and that the results are dependable—reliability. In general terms, the testing of reading behaviours, against measures often associated with characteristics of successful readers, are supported by a large body of literature (Clay, 1991; McNaughton, 2002; Rau, 1998a, 1998b) and others. Interpretations in which alternatives to the text meaning may be brought to bear by the different schema that readers bring to the reading act, are considered to be of crucial importance, and comprehension, where readers extract gist from text or conscientiously make sense of it all are seldom discussed (Urquhart & Weir, 1998). In this current study, the reader was required not only to make sense of the text, but also to switch text into meaningful ‘talk’. In assessing the outcomes of this situation the researcher was still obliged to look for ‘correct’ answers. Scoring criteria were developed from models of assessment created by the New Zealand Ministry of Education (1999) and Rau (1998a, 1998b), then modified to form the basis on which student responses were evaluated.

From the initial harvest of (non-fiction) texts, the structure (the sub-tasks and the number of sub-tasks) and the content (the number of questions per sub-task) were developed. Although designed primarily for use with literary (narrative) texts, the four language-based Kī Mai descriptors (Te Kākano; Te Tupu; Te Rea; and, Te Aka) became the criteria against which five sub-tasks were temporarily aligned. On further investigation of non-fiction texts however, and the subsequent decision to use non-fiction texts, only some elements were ascertained to have potential application in non-fiction texts in one sub-task – Tāruaru (retell), where it was assumed that readers would communicate the ‘gist’ of the text via the medium of te reo Māori. It was concluded that Rau’s (1998b) comprehension probe also contained elements of potential application in the Tāruaru sub-task (main points; and, linking of ideas and/or events). Assessment criteria for the remaining four sub-tasks were developed in accordance with specific sub-task demands.

Each sub-task attracted scores in accordance with definitions and assessment criteria concluded at the researcher and assistant researcher formal training days (see Section
2.1.3(d) below). The comprehension assessment total score was 55. The distributions of the highest possible scores for each sub-task are shown in Table 13.

For all comprehension sub-tasks English language or bilingual responses were considered acceptable. Students are developing bilinguals and the opportunity to express understanding of messages contained in texts using the English or Māori languages was an important factor. However, English or bilingual responses attracted lower scores as all tauira were in classes in which te reo Māori only was the medium of teaching and learning.

<table>
<thead>
<tr>
<th>Comprehension Sub-tasks</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tāruarua (Retell)</td>
<td>16</td>
</tr>
<tr>
<td>2. Maharatanga (Recall)</td>
<td>12</td>
</tr>
<tr>
<td>3. Whakataunga (Inferences)</td>
<td>12</td>
</tr>
<tr>
<td>4. Te Whakamārama Kupu (Vocabulary meanings)</td>
<td>9</td>
</tr>
<tr>
<td>5. Te Whakauru Kupu Ngaro (Cloze)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Table 13: Distribution of Sub-task Scores**

Scores for each subtask were then further separated into three score subsets (low, medium and high) by component from which the percentage of student achievement at each subset could be determined (Table 14).

<table>
<thead>
<tr>
<th>Scores by Sub-task Component</th>
<th>Low Score</th>
<th>Medium Score</th>
<th>High Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TĀRUARUA Retell</td>
<td>CON 0-1</td>
<td>2</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>SEQ 0-1</td>
<td>2</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>TRMV 0-1</td>
<td>2</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>TRMGS 0-1</td>
<td>2</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>REC 0-4</td>
<td>5-7</td>
<td>8-12</td>
</tr>
<tr>
<td></td>
<td>INF 0-4</td>
<td>5-7</td>
<td>8-12</td>
</tr>
<tr>
<td></td>
<td>KUP 0-3</td>
<td>4-7</td>
<td>8-9</td>
</tr>
<tr>
<td></td>
<td>CLO 0-2</td>
<td>3-4</td>
<td>5-6</td>
</tr>
</tbody>
</table>

**Table 14: Scores by Sub-task Component**

2.1.2(e) **Revisions to the Comprehension Sub-tasks**

At the conclusion of Time 1 revisions to the student comprehension assessment scoring, and teacher classroom observation exchanges scoring occurred. Scoring was adjusted in the retell sub-task from four language-based Kī Mai (Ministry of
Education, 1999) descriptors (Te Kākano, Te Tupu, Te Rea, and Te Aka) to those developed specifically for the comprehension assessment (content, sequencing, te reo Māori vocabulary, and te reo Maori grammar and structure). For the Time 1 results student assessment scoring for retell were adjusted accordingly. The modified scoring version for the retell sub-task was also used from Time 2 through to Time 4.

2.1.3 Observations of Classroom Teaching
A schedule of classroom teaching and individual discussions was arranged to ensure convenience to kaiako. Generally, the classroom teaching observations corresponded with the time-line for researcher and research assistants in Kura.

Kaiako classroom observations included: working within script guidelines developed specifically for discussion with kaiako to ensure that the same questions were posed to all (see Appendix VII). Questions included the selection and previewing of texts, the introduction and the development of lessons; comprehension instruction; vocabulary focus; follow-up activities; and monitoring and assessment. Other tasks for researcher and research assistants included the labelling of audio- and video tapes ready for transcribing, and the selection of appropriate segments from video recordings, of teaching that demonstrated good comprehension instruction practice, in preparation for individual kaiako discussion.

At Time 1 and Time 2 kaiako participants were asked to prepare for video recordings of classroom teaching by selecting one non-fiction text at the appropriate year level, introducing the text (for the first 15-minute video recording session), then preparing a lesson and activity for the same text (for the second 15-minute video recording session) for the consecutive day’s teaching. Video recording of classroom teaching was not the normal practice at any of the participating Kura.

The researcher script and guide sheet (See Appendix VII) for the post-teaching audio recordings consisted of questions for teachers, feedback from teachers commenting on classroom teaching using video recordings, and general discussion about classroom practice.
At Time 3 and Time 4, the classroom observations were repeated with minor changes arrived at by agreement between participants and researcher. The participants selected one non-fiction text at the appropriate instructional level. The introduction for the text and an appropriate follow-up activity were prepared. However, the lesson was video-taped over one 30 minute session. At this stage some participants and their colleagues chose to video-tape each other.

Observations of classroom teaching were transcribed then analysed as exchanges as described below (in Section 2.1.4).

2.1.3(a) **Teacher Interviews and Discussions**

All teacher discussions and interviews (like student assessments) were captured on audio-tape. Discussions regarding classroom observations were conducted with the benefit of the events captured on video-tape. The video illustrated teacher interactions with students during the shared or guided reading lessons and provided a reference for action in the classroom. The video-taped recordings of classroom teaching observations were previewed by the researcher prior to the discussion. The discussion and question format focused on six reading comprehension themes: text selection; introduction of text; comprehension; vocabulary focus; follow-up activities; and, monitoring and assessment.

Monitoring and assessment questions on one hand, explored the development of te reo Māori within the context of responses (both teacher and student) to the selected instructional texts. On the other hand, monitoring and assessment questions explored professional learning in terms of the reading comprehension instructional strategies teachers had used, what strategies they considered had been successful and why, and where and how they might explore options for their practice in the immediate, medium and long term.

**Beginning the discussion**

This section contained the following elements: thanking the participants; requesting information about teaching experience; and informing the participants about the question format; practices kaiako would like to affirm or change; professional support (internal or external) to Kura; their feelings about the experience of being filmed; and, their feelings about the use of video-taped classroom observations.
Text Selection
The focus questions sought to establish why teachers chose the particular instructional texts used the preview process and lesson preparation undertaken for the use of texts in lessons.

Introducing Texts
These questions focused on the range of ways teachers might introduce a new text, and the approaches teachers might adopt in using that text in matching appropriate follow-up sessions in subsequent lessons.

Comprehension
These questions sought to identify what specific instructional strategies teachers used in the teaching of comprehension.

Vocabulary Focus
For these questions the attention was directed at how teachers identified new vocabulary and how meanings were derived using the context of the text.

Follow-up Activities
These questions sought to identify what teachers believed were connections between reading activities and the comprehension of text.

Monitoring and Assessment
The questions sought to identify how teachers monitored and assessed student reading and comprehension progress.

Professional Learning
The questions in this part sought information about knowledge gained through the specific focus on reading comprehension. In particular, successful strategies they had tried, what they might change or what they might do differently in their practice. The professional learning opportunities and connections within each site were also explored. The time allocated for discussion was between 30 to 45 minutes per teacher.

2.1.3(b) Analysis of Teacher Data
Teacher Exchanges
For the purposes of the study a teacher exchange is defined as a set of interactions on the same topic involving comments, questions, directions, explanations or feedback.
In a reading activity, exchanges also occur when participants in a reading activity add to the printed text. There can be different kinds of exchanges, including those described below (see Table 14).

<table>
<thead>
<tr>
<th>Teacher Exchanges Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exchanges</strong></td>
</tr>
<tr>
<td>An exchange is a set of interactions on the same topic involving comments, questions, directions, explanations or feedback. In a reading activity, exchanges also occur when participants in a reading activity add to the printed text. There can be different kinds of exchanges, including those described below. The descriptions below may be applied to a whole exchange OR to interactions within an exchange. An exchange has a clear, identifiable focus e.g. on a word or piece of text, or on a particular idea.</td>
</tr>
<tr>
<td><strong>Turns</strong></td>
</tr>
<tr>
<td>A turn is an utterance or utterances made by one person, bounded by a pause, by reading from the text, or by an utterance of another person in an exchange.</td>
</tr>
<tr>
<td><strong>Prediction</strong></td>
</tr>
</tbody>
</table>
| Kaiako asks tamariki to predict something about the text, e.g. from illustrations, or piece of text (e.g. He aha ngā mea i roto i tēnei kāpata)
Or Kaiako makes a prediction for tamariki to consider, evaluate. |
| **Inference** |
| Kaiako asks tamariki to make a proposition / propose a possible answer in light of information from the text. (e.g. pēhea ka mōhio ai koe he pō tēnei?) |
| **Elaboration** |
| Where a word or phrase is commented on, explained, illustrated, before or after reading a word, section or whole text. |
| **Extended talk** |
| A one-to-one interaction that continues longer than 3 turns (i.e. longer than a simple IRE interaction), e.g. comments, explanations and descriptions. |
| **Language focused** |
| An exchange, interaction or utterance that focuses on the language that is being used (i.e. English or Maori). |
| **Vocabulary** |
| Total number of turns that focus on a lexical item. Rating for the degree to which the vocabulary focus connects with gaining meaning.  
1 Lo – Text/surface focus  
2 Med – Asking for or giving lexical item  
3 Hi – Exploring meaning at vocabulary level |
| **Feedback** |
| Each instance rated for the degree to which instances contain information that clarifies, extends, elaborates or reworks a child’s response or initiation (judged in terms of leading to further turn, extending and elaborating child’s turn). Rated for the degree that feedback contains information does the above.  
1 Low= non-descriptive (e.g. pai, rawe. ne? Kao, No)  
2 Med= contains some limited information (ae, he --- tēnā)  
3 High=elaborated feedback that clarifies and adds to the child’s response (Ae, he kūpu no konei; Ae, he karapu pea kei roto i te kāpata) |
| **Questions** |
| Total number of questions. Each rated for clarity and consistency: Rating for the degree to which questions connect with gaining meaning from text at word, phrase, sentence or whole text.  
1 Lo 2 Med 3 Hi |
| **Other** |
| Total number of turns that do not focus or relate to the text, reading and/or gaining meaning, e.g. classroom management; management of reading lesson, distributing books, etc. |

Table 15: Teacher Exchanges Definitions

The descriptions may be applied to a whole exchange or to interactions within an exchange. An exchange has a clear, identifiable focus e.g. on a word or piece of text, or on a particular idea (McNaughton, MacDonald, Barber et al., 2004).
Exchanges were coded according to the features defined in Table 14 and scored on a 1-point scale for seven items (initiation – I, other – O, prediction – P, elaboration – El, extended talk – Ex, and language use – La), and a 3-point scale for three items that measured the quality of teacher interactions (questions – Q, vocabulary – V, and feedback – F).

The Can I Tell You Something research focused on exchanges generated by the teacher (a teacher turn) that covered three broad categories. The first category was text exchanges. These are described as interactions that involved questions, and/ or comments, and/ or evaluations about the text content, as well as connections between the child’s experiences and the text (McNaughton et al., 2006). The second was the item exchange and comprised of interactions that involved a question, a response, and often an evaluation. More often than not, the questions involved were of the display type, that is, the teacher already knew the answer (McNaughton et al., 2004). The third type was the performance exchange in which the teacher modelled or partially modelled text-related content with the intention of gaining a response. The child could either complete the text or sentence given, or imitate teacher speech (McNaughton et al., 2004).

2.1.3(c) Inter-rater Agreements

Inter-rater agreements of reliability for student assessments were undertaken. Training of raters occurred in three, one hour and thirty minute training sessions. A random selection of three student assessments from Time 1, Time 2 and Time 3 were each scored by raters. The researcher in conjunction with the research assistants were required to independently rate each student response (of the three randomly selected student assessments) according to the sub-task criteria then award scores for each sub-task according to the scoring schedule. A different rating by any one of the three researchers was scored as a disagreement. Collations of individual researcher scores were shared. The training sessions resulted in high inter-rater agreement (98% the highest) as well as high inter-rater disagreement (13% the lowest). An average of 75% inter-rater agreement was reached. This level of exact agreement on coding was deemed to reflect an acceptable level of agreement.
Classroom Teaching Observations

Inter-rater agreements of reliability for coding teacher exchanges were conducted over three, one hour thirty minute training sessions. Three raters were required to independently code two full pages of examples of teacher exchanges (from Time 1, Time 2 and Time 3 classroom observations) according to the sub-task criteria – a provision which allowed for a sensitive test of reliability of ratings between raters. Inter-rater agreement was computed by checking whether all three raters agreed on the rating. A different rating by any rater was counted as a disagreement for that item (McNaughton et al., 2006). An average of 75% inter-rater agreement was reached – the level of exact agreement of coding was deemed to reflect an acceptable level of agreement.

2.1.4 Reporting Baseline and Intervention Data to Kura Kaupapa Māori Communities

The focus of the study was to describe and analyse patterns of comprehension learning and teaching in Year three and Year four classrooms in Kura Kaupapa Māori.

The report back sessions comprised of three main elements that could potentially assist teachers and whānau understand and comment generally on the data gathered from each collection time-point (Time 1, Time 2 and Time 3) such as the student assessment data, the classroom teaching observation data and to begin to draw some conclusions based on the patterns presented by the data in and across Kura, and to explore the relationship between the classroom teaching observation data, the student assessment data and student comprehension achievement.

As described in a previous section, the methods employed were framed within a Kaupapa Māori research methodology (Smith, 1997) in which research by Māori for Māori asserts political and cultural aspirations within which are embedded power relationships which presume shared associated research practices and preferences. Contained within the Kaupapa Māori framework is the notion of power sharing, with and between the range of associations connected with schools and communities (teachers, learners and whānau) that depict Māori cultural practices and knowledge and take into account the existing vitality and strength of community from which
Can I Tell You Something?

research and the proposed interventions are instigated. Experience-building and knowledge-sharing are central to the process. The experience-upon-experience shared approach is consistent with Bishop and Glynn’s (2000) notion of learning as a process of ‘storying and re-storying’ (p.5), and variously theorised by Bruner (1996) as participation-as-commitment, and theorised by Applebee (1996) as commitment-as-provocation to learn (Applebee, 1996). A Kaupapa Māori research methodology ought to give voice to the community of interest.

Reporting the research required competency in te reo Māori and cultural sensitivity to the knowledge, practices and protocols of the Tai Tokerau. Hui (formal meetings), whakawhanaungatanga (kinship relationships) and whakawhitihiti kōrero (conduct of discussion and debate) were significant aspects to the dissemination of information, the conduct of the ongoing research process and the presentation and discussion of findings with Kura whānau.

Table 16 (below) shows the report back and discussion timeframe.

<table>
<thead>
<tr>
<th>Time frame</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1 – mid 2004</td>
<td>Data analysis: Time 1 preliminary ‘baseline’ data.</td>
</tr>
<tr>
<td></td>
<td>Kaiako classroom teaching observation data</td>
</tr>
<tr>
<td></td>
<td>Patterns of teacher exchanges and comprehension/ literacy instruction</td>
</tr>
<tr>
<td></td>
<td>Student assessment data</td>
</tr>
<tr>
<td></td>
<td>Patterns of student comprehension data</td>
</tr>
<tr>
<td>Time 2 – pre-2005 School Year</td>
<td>Data analysis: Time 1 &amp; Time 2 ‘baseline’ data sets.</td>
</tr>
<tr>
<td></td>
<td>Discussion / analysis of baseline data (Time 1 and Time 2)</td>
</tr>
<tr>
<td></td>
<td>Workshop activities</td>
</tr>
<tr>
<td></td>
<td>Comprehension - literacy instruction scenarios – teachers adopting roles</td>
</tr>
<tr>
<td></td>
<td>as teachers and learners</td>
</tr>
<tr>
<td>Time 3 – mid 2005</td>
<td>Data discussion: Baseline data and comparison to first set of intervention data (tauira and kaiako)</td>
</tr>
<tr>
<td>Time 4 – early 2006 School Year</td>
<td>Data analysis and final discussions</td>
</tr>
<tr>
<td></td>
<td>Discussion / analysis / comparison of ‘baseline’ data (2004) and ‘intervention’ data (2005)</td>
</tr>
</tbody>
</table>

Table 16: Report Back Time Frame

Report back sessions occurred on four occasions. Findings were discussed with principals, teachers, parents and caregivers, grandparents, members of the Boards of Trustees, administration staff, support staff including caretakers, cleaners and bus drivers, and students, that is, the significant others involved in the lives of the students. The intention was that the process was inclusive and that participants were well informed and provided with opportunities to question, and to have knowledge
about what was occurring in their child or children’s learning. In addition, the sessions would provide a supportive environment for teachers to share their experiences with colleagues but also the opportunity to critically reflect on their own classroom practice.

The report back content, venues and dates were confirmed by researcher and Kura. The preference of participants was for the researcher to visit and report back to individual Kura and their community. Kura would provide the resources, technology and space as appropriate.

Reporting the baseline data at Time 1 occurred in late July and early August 2004 and at Time 2 baseline report back occurred in January 2005. As a part of each session teachers, community members, students and researchers discussed aspects of the proposed intervention and practised and role played explicit and strategic instruction for teaching comprehension.

Distances between Kura were reflected in the need for the Time 2 data report back and kaiako workshop session to occur at the mid-point between the most distant Kura to ensure that kaiako did not travel by car for more than one hour and thirty minutes. The Kura located at the mid-point hosted the event. All other data report back sessions were held at individual Kura.

**Summary**

The methodology was designed to assist the exploration of the three research questions, that is, the patterns which emerged from student comprehension assessment data, the teacher instruction patterns which emerged from the classroom teaching observations and, how the patterns could provide an insight for the creation of a programme of instructional intervention. The participants included five Kura, eight teachers, 54 Year three students and 53 Year four students. Kura designators were the letter K followed by a vowel to identify each Kura (for example, KA; KE; KI; KO; KU), followed by the year group, and the data collection time point designator (for example, KA3i).
Data collection was conducted across four time points (Time 1, Time 2, Time 3 and Time 4). A cross-section longitudinal design was used to analyse the data for student learning over two years. Teacher narratives, descriptions and classroom teaching observations were used to consider instructional patterns over the same duration.

The student comprehension assessment developed for the study contained five sub-tasks (Tāruarua, Maharatanga, Whakataunga, Te Whakamārama Kupu and Te Whakauru Kupu Ngaro). The Tāruarua sub-task incorporated one assessment each for text content (CON) and text sequencing (SEQ) and two language-use assessments for te reo Māori (TRMV and TRMGS). The sub-task assessment criteria were informed by three existing te reo Māori standardised diagnostic reading procedures, trialled and then revised. Assessments were conducted orally and student responses were audio-taped then transcribed for accurate analysis. Each assessment was between twenty to thirty minutes. The level of exact agreement (of 75% between three raters) on coding reflected an acceptable level of agreement for the scoring of student assessments. Non-fiction texts written in the Māori language were used. Four texts (one each for Time 1 and Time 3, and one each for Time 2 and Time 4) were chosen from a selection freely available to all Kura.

Classroom teaching observations were between fifteen to thirty minutes long. Teacher exchanges (from classroom teaching observations) were transcribed and coded for analysis according to types of exchanges as defined for the current research. The level of exact agreement (of at least 75% between three raters) on coding reflected an acceptable level of agreement for scoring teacher exchanges.

In Chapter three, Part I the Year three student comprehension assessment results are reported from Time 1 through Time 4 which are followed by results for Year four Part II.
Chapter Three
The Results

‘The vocabulary alone does not resolve your difficulties. You have to work to understand the vocabulary’ (Freire & Macedo, 1987, p. 76)

Part I: Year Three

Introduction

The first key question raised by the study was, what are the patterns of achievement in comprehension for Year three and Year four students in Kura Kaupapa Māori settings? In this chapter the tauira comprehension assessment results by sub-task are reported in two sections. In Part I, Year three results for the baseline year (Time 1 and Time 2) and the intervention year (Time 3 and Time 4) are presented. Year four results follow in Part II.

The five sub-tasks developed and trialled for the comprehension assessment were: tāruarua (retell) which comprised of four additional sub-task categories namely, content (CON), sequencing (SEQ), te reo Māori vocabulary (TRMV), and te reo Māori grammar and structure (TRMGS). Te reo Māori vocabulary and te reo Māori grammar and structure categories of the retell sub-task were language use measures in the assessment; maharatanga (recall, REC); whakataunga (inferencing, INF); te whakamārama kupu (vocabulary meanings in context, KUP); and, te whakauru kupu ngaro (cloze, CLO).

The total scores (55) for all sub-tasks were described in Section 2.1.2(d). Comprehension sub-task categories were shown in Table 14.

3.1.0 Reading Accuracy

The Māori language is phonetically regular. Some students read texts confidently and demonstrated high degrees of fluency despite errors of omission, errors of addition, and errors of word selection. Other students demonstrated less confidence when reading texts selected for the assessment. Generally, high accuracy rates correlated with low self correction rates.

A close match was found between texts and reading accuracy rates. At Year three reading accuracy for most students was between 89% and 100% whilst at Year four reading accuracy for 87% of students was between 90% and 100%. Some students
read silently and accuracy rates were not recorded. Others found the text too difficult. These were mostly students with special language needs for which responses were included only in final scoring for the language use categories. Although some students struggled, they insisted on reading the text and subsequently, went on to score well on the language use and reading comprehension sub-tasks.

So what were the patterns of achievement in reading comprehension for these groups of Year three students in Kura Kaupapa Maori? The question has been explored by using a prototype comprehension assessment developed in conjunction with another study (Hohepa et al., 2006).

3.1.1 The Baseline Results (Time 1 and Time 2)

The Year three student results are presented first for the baseline year followed by results for the intervention year. Year three data sets represented 53% of total assessments from the baseline year and 48% of total assessments from the intervention year as described previously (Section 2.1.1(c).

3.1.2 The Mean Scores

Figure 4 shows the Year three mean scores over two years.

![Year three Mean Scores](image)

**Figure 4: Year Three Mean Scores**

The mean score was higher (at the end of baseline) compared to the beginning. (Time 2, 2004 mean score = 25.7; Time 1, 2004 mean score = 14.4) for the first cohort of Year three students. At the beginning of the intervention (Time 3), the mean score
for Cohort 2 was higher than for Cohort 1 (mean=21.92) and increased at the end of the intervention year (Time 4 mean = 29.37). Overall, Cohort 2 (Year three) began with a higher mean compared to Cohort 1 (Year three).

### 3.1.3 Mean Score Patterns by Comprehension Sub-task

Year three mean score patterns by comprehension subtask were similar for some of the components across two years for Year three cohorts. Major mean score increases occurred for the Retell components (CON, SEQ, TRMV and TRMGS). Some changes appeared less systematic (and in some instances decreased) at Time 1 and Time 2 particularly in other components contributing to the vocabulary and langue scores (see Table 17).

<table>
<thead>
<tr>
<th>Year Three Mean Scores by Sub-task</th>
<th>CON</th>
<th>SEQ</th>
<th>TRMV</th>
<th>TRMGS</th>
<th>REC</th>
<th>INF</th>
<th>VOC</th>
<th>CLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr 3 Cohort 1 Time 1</td>
<td>1.11</td>
<td>0.96</td>
<td>0.85</td>
<td>0.81</td>
<td>3.74</td>
<td>3.37</td>
<td>1.44</td>
<td>2.11</td>
</tr>
<tr>
<td>Yr 3 Cohort 1 Time 2</td>
<td>2.22</td>
<td>2.07</td>
<td>2.25</td>
<td>2.48</td>
<td>3.25</td>
<td>5</td>
<td>3.11</td>
<td>1.29</td>
</tr>
<tr>
<td>Yr 3 Cohort 2 Time 3</td>
<td>1.77</td>
<td>1.62</td>
<td>2.25</td>
<td>1.85</td>
<td>5.92</td>
<td>6.18</td>
<td>0.96</td>
<td>1.33</td>
</tr>
<tr>
<td>Yr 3 Cohort 2 Time 4</td>
<td>2.59</td>
<td>2.48</td>
<td>2.51</td>
<td>2.66</td>
<td>8.22</td>
<td>5.55</td>
<td>3.66</td>
<td>1.66</td>
</tr>
</tbody>
</table>

**Table 17: Year Three Cohort 1 Mean Scores by Sub-task**

Patterns of mean score increase (in INF and VOC) and mean score decrease (in REC and CLO) were less consistent for Year three Cohort 1. With the exception of VOC and CLO, Year three Cohort 2 achieved higher means score gains compared to Year three Cohort 1. Increased mean score gains occurred across seven components at the end of the intervention. The pattern of mean scores suggests that teacher instruction may have been more effective from Time 3 to Time 4 (compared to Time 1 and Time 2) with the data indicating potential for continuing mean score increase. In the instance of REC (in which the mean score dropped from Time 1 to Time 2) the mean score increased from Time 3 to Time 4. It could be concluded that teacher instruction for the intervention (from Time 3 to Time 4) was beginning to add value overall.

### 3.1.4 Raw Scores by Kura

Kura are identified by the letter *K* followed by a vowel, for example KA; KE, KI; KO and, KU.
Patterns differed across Kura. Changes reflected raw scores that were high at Time 1 and decreased at Time 2 (e.g. KA and KE) while scores that began low (at Time 1) increased at Time 2 (see Figure 5). The pattern shows gains at three Kura during the baseline (Time 1 and Time 2).

The distribution of the percentage (of students) that scored across the low, medium or high range for each sub-task component is shown in Figure 6. At Time 1 (baseline) the low scores across eight components was high. At Time 2 low scores were substituted with increases in medium to high scores or vice versa (Figure 6). Exceptions occurred in three components (INF, VOC and CLO). The percentage of low scores for INF decreased slightly, medium scores decreased and high scores increased. In VOC the percentage of low scores showed little change while high scores were traded off with medium scores at the end of the baseline year. For CLO the percentage of low scores actually increased.
The percentage pattern of student scores for Year three Cohort 1 (Time 1 and Time 2) suggests that comprehension instruction may have been most effective in four components (CON, SEQ, TRMV and TRMGS) and least effective in the remaining four (REC, INF, VOC and CLO) across the baseline year (see Figure 6). VOC and CLO were shown to be the most difficult sub-tasks for students across the baseline year. The observations of classroom teaching data gave the impression that while teacher vocabulary and feedback exchanges generally increased (from baseline to intervention) students appeared to experience some difficulty in using the information independently for comprehending unseen texts.

### 3.2.4 The Intervention Results (Time 3 and Time 4)

Figure 7 (below) shows the distribution of raw scores for Year three Cohort 2 across Kura in the intervention year.
The pattern of raw scores (for Year three Cohort 2) varied across Kura. While assessment raw scores decreased at one Kura at four others student raw scores increased during the intervention year (Figure 7). The pattern could indicate that in some Kura comprehension instruction may have been less effective at the beginning of the year and still developing across the remaining time. The pattern also points to instructional challenges that could include bridging the difference between high accuracy rates and engagement with text meaning.

During the course of the intervention year the pattern of sub-task scores in the high, medium and low ranges was similar across Kura. In the eight comprehension sub-task components increases in medium to high scores occurred albeit at decreased levels in two components. The pattern suggests that while comprehension instruction may have been more effective in the intervention year, instructional strategies related to vocabulary and language use (that is, for VOC and CLO) presented particular challenges for tauira (see Figure 8).
Patterns across Kura were variable over two years. In the baseline year scores increased at four Kura. In the fifth Kura scores decreased. During the course of the intervention year gains were made at three Kura and score decreases occurred at two others (Figure 8). It is not clear given the cross-sectional data whether the differences could have been attributed to the effect, if any, of the summer break (Lai et al., 2009).

Year three mean score patterns across Kura over two years were similar (Figure 9). In the first year the mean score increased from beginning to end in all but one Kura. In the second year the mean score across Kura were lower at the start of the intervention and increased less systematically at the end. The mean score pattern indicated that gains made in the first year were generally lost over the summer and while gains occurred for some Kura over the second year for others decreases occurred. Mean score patterns generally relate to instructional implications which include kaiako experience and knowledge (Block & Pressley, 2002; McNaughton, 2002; Phillips et al., 2001a) and staffing issues (Hill & Hawk, 2000).
Part II: Year Four

In Part II, Year four results for the comprehension assessment and language measures are presented in similar formats as for Year three.

Introduction

The comprehension assessment data were analysed to explore the indicative performance for two discrete cohorts of Year four tauira over two years. Reading accuracy rates were taken but were not included in the final analysis of the comprehension assessment results. It should be noted that Year four Cohort 2 in the intervention year (2005) was comprised of Year three Cohort 1 tauira who began the study in 2004.

3.2.0 The Baseline Results (Time 1 and Time 2)

The Year four results are presented from the baseline year to the intervention year. The twenty seven matched data sets represented 71% of the total number of completed assessments reported on in the baseline year. In the intervention year the twenty six matched data sets represented 86% of the total number of completed assessments reported on in the results.

3.2.1 Mean Scores

Mean scores rose and fell during the baseline year. The mean score Cohort 1 rose slightly (mean = 22.59) from Time 1 to Time 2 (mean = 23.4). While a very small
increase occurred (at Time 2) it was unlikely to have the effect that generally might be expected towards the end of the school year.

At the beginning of the intervention year the mean scores for Cohort 2 began higher than for Cohort 1 at same time (mean = 27.69). Mean scores (mean = 23.65) fell at Time 4 to a point similar to that of Cohort 1 at the Time 2 (Figure 10). The higher gain at the start could be an effect from participation in the study in the previous year (as Year three, Cohort 1) but the drop at the end of the year shows that gains were not sustained. The consistent mean score decrease could indicate issues such as text selection and text match issues, the comprehension assessment design, teacher changes and/ or the effectiveness of instruction at Year four versus Year three. The intervention appears to have been more effective for Year three kaiako and Year three tauira.

For example, in the case of text selection and text match texts for the comprehension assessment were selected using the only recommended guide that matched instructional reading material to tauira reading levels. The use of such texts for assessment purposes beyond the running record and reading accuracy rates has yet to be fully explored due to the developmental nature of the Ngā Kete Kōrero framework and the exploratory nature of the Can I Tell You Something study. The discrete cohorts in both year groups read from two different texts. One text topic was more familiar than the other. Year three cohorts read the unfamiliar topic at the beginning
of the year and the more familiar at the end of the year. For Year four cohorts the reverse occurred.

3.2.2 Mean Score Patterns by Comprehension Sub-task

The Retell scores for both Year four cohorts did not improve as consistently across two years when compared to the Year three cohorts. The consistent change was that the vocabulary and language use scores for Retell increased at the end of both years. The details are contained in Table 18.

<table>
<thead>
<tr>
<th>Year Four Mean Scores by Sub-task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>CON</td>
</tr>
<tr>
<td>Yr 4 Cohort 1 Time 1</td>
</tr>
<tr>
<td>Yr 4 Cohort 1 Time 2</td>
</tr>
<tr>
<td>Yr 4 Cohort 2 Time 3</td>
</tr>
<tr>
<td>Yr 4 Cohort 2 Time 4</td>
</tr>
</tbody>
</table>

**Table 18: Year four Mean Scores by Sub-task: Cohort 1 and Cohort 2**

In the other components mean scores increased for INF and VOC in a reversal of the pattern for Year three cohorts (Table 18). A decline in REC and CLO scores occurred at the end of both the baseline and the intervention years which could suggest that instructional effectiveness occurred in some but not all components. Some but not all teachers taught composite classes comprised of tauira from both year groups and scores could suggest not only text selection issues but also indicate a degree of difference in instruction at Year four compared to Year three.

3.2.3 Total Raw Scores by Kura

Raw score patterns were generally complex and differed across Kura and within Kura (for example, Kura KU) during the course of the baseline year for the first Year four cohort (Figure 11).
Score increases occurred at two Kura while at others scores were fairly static or decreases occurred. In one case score decreases were spread more widely between high and low scores in a pattern that was similar to the Year three cohorts over the first year. It could be concluded that for the first Year four cohort instructional strategies at two Kura were more effective over the baseline year added with the probability that kaiako stability could have been a contributing element.

Figure 12 (below) shows the percentages for Year four Cohort 1 tauira that gained low, medium or high scores for each sub-task component in the baseline year.

Percentages of high scores in sub-task components were offset by decreases in other scores across the scoring range. For example, in three out of four retell components (that is, CON, SEQ, TRMV and REC) the percentage of high scores dropped. The pattern suggests that instruction was effective at the beginning of the first year and least effective at the end. The percentage of high scores in four remaining sub-tasks (that is, TRMGS, INF, VOC and CLO) increased during the course of the baseline year.
3.2.4 The Intervention Results (Time 3 and Time 4)

Figure 13 (below) shows the distribution of total scores for the second Year four cohort across Kura at Time 3 and Time 4. The pattern indicates mostly falling scores.

Changes in the patterns for the second cohort were in some instances similar to the first cohort and in other instances patterns were almost the opposite. For example, scores for the first cohort at one Kura dropped across the baseline while scores for
the second cohort at the same Kura went against the falling trend for Year four and increased over the intervention year (Figure 13). Instructional effectiveness in combination with teacher stability in the long term may possibly account for the change.

Figure 14 (below) shows the percentage of tauira scores gained in the low, medium and high ranges by Year four Cohort 2 tauira over Time 3 and Time 4.

![Year four Cohort 2 Percentage of Scores Time 3 and Time 4](image)

**Figure 14:** Year four Cohort 2 Percentage of Scores Time 3 and Time 4

The patterns for both Year four cohorts were similar over two years. Much like the patterns for the first cohort tauira scores began high but decreased at the end of the intervention. Scores fell in six out of eight sub-task components for the second cohort. Except for TRMV4 and VOC4 the percentage of scores in the low range increased or remained static. The patterns were unlike those compared to the Year three cohort patterns given that the some kaiako taught composite classes. The patterns suggested that the comprehension assessment could have been better
designed for Year three or that comprehension instruction may have better met the needs of Year three tauira.

3.2.5 Mean Scores by Kura

Figure 15 (below) shows the mean scores for both cohorts at all Kura over two years. Dashed lines indicate the summer break.

![Year 4 Mean Scores by Kura](image)

**Figure 15**: Year four (Cohort 1 and Cohort 2) Mean Scores by Kura

The patterns for Year four cohorts show that despite the same kaiako in some composite classes there is very little evidence in any Kura that there were significant gains. While an increased instructional effectiveness was indicated at Year three the same was not so evident at Year four.

Shared reading occurred in all Year three and Year four classes observed. Kaiako reported that non-fiction texts were not usually used as instructional material. The possibility that instructional readers selected for classroom shared reading purposes may have met the ‘learning to read’ needs of Year three cohorts but could have compromised the ‘reading to learn’ needs of Year four tauira. Faced with texts in the comprehension assessment about a familiar topic at the reading level recommended the Year four cohorts scored well but patterns indicate that the same tauira were challenged by texts about the more unfamiliar topic.
Transcribed responses to questions in the comprehension assessment revealed that the majority of (100%) of tauira used te reo Māori and of that number 45% used a combination of the Māori and English languages which usually occurred when students were uncertain of the appropriate Māori word for English vocabulary items. There was no case in which students used only English. The results were generally indicative of the extent to which students may have firstly, experienced difficulty in processing written text content and secondly, experienced difficulty in explaining and describing meanings orally.

So what were the patterns of achievement in reading comprehension for Year three and Year four tauira? Patterns across the Year three and Year four cohorts contrasted. The patterns for Year three cohort mean scores indicated the potential for further increase in contrast to Year four patterns that indicated falling mean scores.

While the mean scores for the second Year three cohort initially decreased after the summer break increases occurred at the end of the intervention that were higher over two years in seven of eight components compared to the first cohort. Mean score increases occurred particularly in Retell and Vocabulary meanings. In both cohorts of Year three tauira the patterns of mean score decreases occurred across different components and were not consistent over two years. The mean scores for the first Year four cohort were almost the same from the beginning to the end of the first year. Initially, the mean for the second cohort increased at the beginning compared to the first cohort at the same time but dropped at the end of the intervention year.

In this chapter the development of a reading comprehension profile for Year three and Year four tauira in five Kura Kaupapa Māori contexts was explored. What instructional practices in some Kura akomanga (classrooms) over two years were effective and why? The effects of the intervention as indicated by the tauira assessment results for comprehension appeared to be consistent across Kura and across cohorts.

3.2.6 The Longitudinal Aspects of the Study
Further exploration of one other aspect of the study, the longitudinal dimension, which tracked the Year three, Cohort 1 (across both Year three and Year four) could
help to explain possible instructional effect or effects. For example, patterns across Kura suggested that some tauira gained high individual scores but the long, low score tail for other tauira persisted (for example, see Figure 11, Kura KU and Figure 13, Kura KA). A possible effect could possibly be attributed to instruction which may have focused on learning to read for Year three tauira in composite (mixed) classes.

If this was the position then,

a) assessment results overall highlighted that effective instruction, however, was not consistently sustained despite year group and class composition.

b) mean score gains during the course of the study for Year three (tracking through as Year three Cohort 1 through to Year four, Cohort 2) were more or less maintained (see Figure 16), and,

c) no mean score drop could be attributed to the summer effect (Lai et al., 2009).

To help understand tauira patterns of achievement the following chapter explored some of the instructional differences and similarities between kaiako. Teacher data is explored in four parts: teacher interview and discussion vignettes; classroom teaching observations; Year three kaiako (teacher) exchanges; and, Year four kaiako (teacher) exchanges.
Part I: Kaiako Interviews and Discussion

Introduction

To teach in Kura Kaupapa Māori is more than a profession. There is much pressure on kaiako with competency in te reo Māori to ‘come home’ post-university initial teacher education programmes to Kura which is often compounded by linguistic and cultural demands. The Māori language is Te Aho Matua – the enduring bond, through which the cultural and spiritual aspects of lives are renewed and maintained with whānau, hapū, marae, iwi, and hopes for future generations are affirmed.

All but a few teachers in Kura are second language learners of the Māori language. Most teachers who participated in the study expressed reservations about their knowledge of te reo Māori. One teacher summarised the concern succinctly,

‘I’m not yet at the level where it just flows. I, my [Māori] language break[s] down because quite frankly I don’t know how to ask, I know in here [points to heart] what to ask but I can’t always express it’

(Teacher KU, tiili).

All Kura in Tai Tokerau are hard-to-staff schools. Kaiako in this research have heeded the call of home. They are a limited resource and staffing needs for these Kura remain difficult to satisfy.

In this chapter the study explored the ways in which kaiako gained knowledge, practices and beliefs when learning about the art of effective comprehension instruction in Kura. Two questions were explored in order to develop and build upon effective comprehension instruction: What were similarities and differences between kaiako instruction and what was the impact on tauira learning? How did reflection on ideas about teaching comprehension at the beginning change (or not) over two years across kaiako and across Kura? Kaiako reflected on what they said about their

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7 Personal communications with the five Kura Kaupapa Māori Principals, 2006.
practice in pre-teaching discussions with the aid of video-taped observations of classroom teaching in post-teaching discussions. Differences and similarities between kaiako instructional practices across Kura and how variable those practices were could then help explain tauira patterns of achievement outcomes in the previous chapter.

4.1.0 Kaiako Participation

The main influence in a decision to participate in the study was the involvement of their Kura. Kaiako selection generally contrasted with those selected for either other Māori literacy teaching studies (Bishop, Berryman & Richardson., 2001; McNaughton, Phillips & MacDonald., 2003), or other international studies (Block & Pressley, 2002) where teacher selection was based mainly on levels of expertise as identified by colleagues, or other expert advisory groups (Wharton-McDonald, Pressley & Hampston, 1998). In general kaiako were self-selected. Some kaiako participated for a minimum of one school term (approximately ten weeks) whilst others participated throughout the two-year duration of the field study.

4.1.1 Teacher Changes

Many kaiako taught across more than one year level often across two or more year-group levels. As Kura enrolments increased then staffing changes were a natural consequence usually on the arrival of new staff. For example, for kaiako teaching in Kura that had achieved Wharekura (secondary school) status it was possible to move between Year 0 (five year olds) and Year 13 (eighteen year olds) classes.

4.1.2 Kaiako Discussion Themes

Kaiako discussion focused on six major themes as described in Section 2.1.3(a).

To begin the discussion some background information from kaiako about their teaching experience was sought. The personal descriptions and views reported were relevant to kaiako current literacy teaching practices in relation to comprehension instruction, and Māori language-use and vocabulary development. One additional question to the major themes related to working with and learning from other colleagues from within or external to their Kura.
4.1.3 Capturing the discussion
Questions served two main purposes - one purpose was: to explore descriptions in terms of instructional strategies for reading comprehension teachers had used, what they considered had been successful, and where and how they might explore options for their practice in the immediate, medium and long term; and, another was to explore kaiako descriptions in terms of kaiako theories, and kaiako practice.

Teacher quotes are coded by Kura (KA, KE, KI, KO or KU), and the time point at which the quote occurred (ti, tii, tiii or tiv). More than one teacher from the same Kura is represented with an additional superscripted number (e.g. KE₁). Fillers (for example, um, ah, hmm) used in discussions and interviews were not included in the interview excerpts.

4.1.4 Beginning the discussion
The beginning discussion is described in Appendix VII.

4.1.5 Choosing texts
The focus questions sought descriptions of why kaiako chose the texts they use (Why did you choose this book/article?).

Instructional texts should be selected with a purpose in mind (Ministry of Education, 1996). For example, to help children develop find information on a particular topic, to learn new and reinforce prior knowledge – finding out what tauira already know, what tauira need to know and where tauira can find out and could include strategies about solving unknown words, sound patterns in spoken language, patterns in written language, and arguably most importantly to understand what the author is trying to say. The same text could be used repeatedly to meet new learning purposes and to reinforce previous learning. For example, aspects learned from texts one day may need further development the next (Smith & Elley, 1997).

As noted previously, teaching composite classes was common for Year three and Year four kaiako. Groups were either large (18 or more children) or small (five or six children).
4.1.5 Choosing Texts

Kaiako chose texts for three main reasons:

- they taught a range of year-groups (4 teachers),
  ‘I’ve got Year 1 to Year 4, I had to have something that would incorporate all the children together, all could relate to, and it wouldn’t be too difficult since it was a shared reading, but sought texts that challenged within the [different] levels’ (Teacher KE, Ti).

- texts linked to a topic or unit study or curriculum strand (5 teachers),
  ‘This week we started on our hauora [health] unit’ (Teacher KA, ti).

  ‘Trying to integrate the theme in[to] the curriculum areas’ (Teacher KA, tiii).

- texts were at the appropriate instructional levels (7 teachers)
  ‘the running records showed that they were reading at [level]’ but,
  ‘that comprehending was very difficult for them’ (Teacher KO, ti).

Kaiako also identified difficulty in making the change from using texts at one level and choosing texts for another, reflecting the challenges that teachers face in developing effective literacy teaching practices for children in their class,

‘In one year I’ve gone from the Wharekura [secondary school] to primary’ (Teacher KU, ti).

For another kaiako it was text illustrations closely related to text content (1 teacher)

‘basic, easy for them to follow, not too difficult a text, something relatatable, that happens in daily life’ (Teacher KE, tii).

Variability in the selection of instructional texts (Ministry of Maori Development, 1996) was found over two years. Except for the beginning of the intervention year (Time 3) classroom observations revealed that text selections made throughout the study were lower than recommended reading levels (5 from 7 texts at Time 1; 1 from 6 at Time 2; and 5 from 8 texts at lower level at Time 4). Teacher-selected texts contrasted with texts used for the comprehension assessment (developed for the study), for example, the former contained some text supported by strong graphics
while the latter contained increased chunks of text and fewer graphics. Results indicated that text choices for shared reading may have favoured the instructional needs of Year three in composite classes while text choices for small groups of Year four tauira were largely found to be suitable.

4.1.6 Previewing texts

Kaiaako were asked how they might preview a text prior to using it for instruction. (How do you preview a book or story before you use it in the classroom for guided or shared reading?).

Kaiaako described previewing texts by:

- taking books home for pre-reading (7 teachers);
  ‘I read the book, read it for myself” (Teacher KI, tiii).

- checking for relevance to themes and units of planned work (4 teachers);
  ‘If it’s non-fiction, that it’s relatable if not we turn it into something that happens in everyday life’ (Teacher KE, tii).

  ‘Evaluate whether topics were relevant to unit plans’ (Teacher KO, ti).

- checking for new vocabulary (4 teachers) – not too many new interest words (1 teacher);
  ‘Look for, basically, kupu [words] they would not be able to understand, their levels, I’ve got four groups’ (Teacher KA, tii).

- developing sets of questions (3 teachers – 2 teachers mentioned recall questions);
  ‘I’m a second language learner. I sometimes can’t think of questions while I’m sitting there’ (Teacher KU, tiii)

- practising reading the text (1 teacher);
  ‘I practised with the book. So if I was asked to read I’m going to make it as interesting as possible’ (Teacher KU, tiii)
Kaiako generally previewed chosen texts in preparation for reading to or reading with children, that is, kaiako-controlled processing of the text. The primary responsibility for text processing and comprehension should commence transfer from kaiako to tauira in the early years (Morrow et al., 1999) when tauira are expected to begin to process text independently. The shared reading approach could be an ideal instructional environment for the development of transfer strategies that may be reduced or prolonged somewhat when kaiako are always in control.

Kaiako spoke about practical issues when previewing texts such as,

- checking availability, and condition of books for children’s use (1 teacher);
  ‘When you’ve only got a certain amount of books, you’ve got to see if you’ve got enough books at that level’ (Teacher KE: A, tiii).

Practical issues such as that mentioned above reflected the challenges that faced kaiako in a relatively new schooling provision and the availability of instructional resources written in the Māori language. Newly established Kura differ from other schools with regard to the issue of resource materials including instructional readers, that is, resources became available only from the date of establishment. Instructional materials written in te reo Māori has long been identified as one of the problems facing Māori-medium primary schools (Smith & Elley, 1997).

For one kaiako, having transferred from a secondary school, difficulty arose in choosing and previewing instructional texts at junior school level. While some kaiako described practising the reading of texts and others prepared appropriate questions few talked about the needs of tauira who were new learners of Māori (Francis & Reyhner, 2002), tauira who were progressing well who needed to be extended, and tauira who were experiencing difficulty in grasping literacy concepts (Ministry of Education, 2003). The issue of personalising or differentiating the instructional process of previewing texts may well extend to the personalisation and differentiation of instruction.

Previewing of texts can enable kaiako to teach or support the development of processing skills and strategies that tauira could use in the endeavour to understand and interpret meanings conveyed by texts (Block & Pressley, 2003). Non-fiction
texts present readers with new challenges such as new information, ideas, vocabulary and differences in text structure and organisation that are entirely dependent on the purpose and content areas (Reutzel et al., 2002). Identifying and addressing tauira need for instructional support and guidance, and the development of a repertoire of comprehension processes is known to take time.

4.1.7 Introducing texts

The purposes for introducing texts should be shared with students. The introduction could provide the opportunity for students to talk about experiences that connected to the text, and/or to predict its meaning or structure (Morrow et al., 2003) but also help build a sense of expectation about what the book could be about.

Questions related to this section focused on the approaches kaiako might use when introducing new texts and in matching appropriate follow-up sessions in subsequent lessons. For example, I noticed that you introduced the story/article by... why did you choose to do this? Tell me about other ways you have used to introduce story topics. Why have you used these ways? What differences have you found when you are introducing non-fiction texts compared to fiction texts?

Generally, kaiako described introducing texts by:

- asking prediction questions based on the cover, title (5 teachers);
  
  ‘Go through, look at the pictures, gather information for themselves’ (Teacher KO, tii).

  ‘I get kōrero [talk] about the topic first, talk about those things before going into the text’ (Teacher KO, tiii).

  ‘I always start with questions, to draw their attention into the book’ (Teacher KU, tiii).

  ‘You organise it, set it up, then you know where your aim is’ (Teacher KO, tiii).
‘I go through the book with them, fewer pictures, more text. I get meaning and understanding from the text, what the story is about. From that, be able to ask questions’ (Teacher KI, tiii).

- linking text title to text content (1 teacher);
  ‘put the name of the text on the SmartBoard®, have a big discussion about what they think, the meaning of the text [is], sometimes they are right on to it, sometimes they are right off key’ (Teacher KE, tiii).

- talking about text content (7 teachers), and linking to children’s prior knowledge;
  ‘Look at [read] the text you think they don’t know, try and link it to something they already know’ (Teacher KU, tiii).

- talking about non-fiction and fiction texts (1 teacher);
  ‘Just looking at the book to recognise other books that are fiction or kōrero pono [non-fiction] ngā kōrero tuku iho [talk left by our ancestors]’ (Teacher KO, tii).

- linking text content to unit studies or class trip (2 teachers);
  ‘Ko te haere mātou ki [Tamaki] i ngā wiki kei te heke mai. Ko ngā pātai, me whiriwhiri koe hei hono ki tērā’
  Translation:
  ‘We are going to [Tamaki] in the next few weeks. The question[s], consider what would be appropriate in that context’ (Teacher KU, tii).

  ‘Reflecting on what we’ve already learnt’ (Teacher KU, tiii).

- talking about new vocabulary (6 teachers);
  ‘Write up. It’s a good way of introducing new kupu [vocabulary] in the text, keeping it in context, sentence structure as well’. (Teacher KU, tiii).
• adding new vocabulary to class word lists (1 teacher);
  ‘I’ll [put them into my papakupu [word list]. Maybe use them a
week before so that they are already familiar with the kupu hou
[new vocabulary]’ (Teacher KI1 tiii).

Many kaiako stated text introduction as an activity which comprised a part of their
regular practice. Little evidence was found during classroom observations (text
introductions) that systematic strategy instruction such as the activation of tauira
prior knowledge occurred from one shared reading to the next (Guthrie, 2003).
Kaiako approaches seemed concentrated mainly on text illustrations and vocabulary
meanings at the surface level and the opportunity for the activation of tauira prior
knowledge, either content or otherwise, was generally lost. Unreliable patterns over
two years for both Year three and Year four cohorts in vocabulary and language-use
scores suggest that text introductions compounded with less than challenging text
selections may not have added value to either kaiako or tauira learning about the
comprehension process (Anderson, 1984).

4.1.8 Predictions
Some teachers described the following prediction strategies they used to support
comprehension.
  ‘talk[ing] about what’s happening’ (Teacher KA, ti); and,
  ‘reading for meaning, because without the meaning they have got
nothing’ (Teacher KE1, tiii).

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Table 19: Year three Kaiako: Predictions as Percentages of Total Exchanges
Although kaiako referred generally to predictions the observation data revealed low (Table 19). There was little difference in the predictions data from Year four kaiako. One kaiako wrote questions and statements, usually aligned with the sequence of the text in a paragraph or a page and read them with tauira at the introduction. Questions were discussed and evidence sought by checking the text to support or to address the question including new vocabulary and meanings. Such activity was considered by many kaiako to constitute the idea of prediction. While kaiako descriptions during discussions indicated otherwise, in practice, little or no instruction time was focussed on predictions to improve tauira comprehension and related more to testing rather than teaching comprehension (Durkin, 1978-79). Little or no kaiako focus on prediction may be reflected in the mixed patterns of mean score increases and decreases over two years.

4.1.9 Comprehension Focus

Interview questions with a specific comprehension focus sought to identify instructional strategies kaiako used during their teaching practice, that is, ‘I noticed that during the lesson you focused on the children’s comprehension of the story/article by... why did you choose to do this? What other ways do you use to help children gain meaning from text? How do you help children to understand the context in a story or article? What differences have you found when you’re focussing on comprehension of non-fiction texts compared to fiction texts?’.

Kaiako described gaining meaning from texts through,

- Reading text, questioning, and talking about what’s happening (5 teachers);
  
  ‘We’ll go back, see if the predictions were right’ (Teacher KA, ti).
  
  ‘Dropping questions, a mixture really to [check] they are on the same wavelength’ (Teacher KA, tiii).
  
  ‘I always ask questions like: What do you think? What is the writer trying to say here? Sort of, or what do you think it’s about? Then I ask others to add’ (Teacher KA, Whole group session, tiii).

  ‘Ask why, how, where?’ (Teacher KU, ti).
One kaiako talked about learning the art of questioning at the pre-service teacher education programme,

‘When I was training she’d [the lecturer] drum into our head, if you ask a question if you want them [students] to respond to whatever you want, you always ask open-ended questions, like question upon question. I just try to bring it out slowly with question upon question. Also praising and acknowledging what they [students] have to say’ (Teacher KU, ti).

- Focusing on the purpose for reading the text,
  ‘There are lots of things to focus on [there] most definitely has to be a purpose. What particular focus are we looking at? If we have to focus too wide, it’s too big’ (Teacher KA, Whole group discussion, tiii).

The majority of descriptions at Time 1 and Time 2 were repetitions of the teacher initiated question, student response, and teacher evaluation cycle (Cazden, 1988), and were typical of classroom dialogues found in other studies (McNaughton, MacDonald, Barber, Farry, & Woodard, 2006; Wharton-McDonald, 2002). In contrast, some teachers at Time 3 encouraged students to elaborate on responses.

- Reading silently then posing questions (2 teachers);
  ‘The second reading they read it quietly then we pick out the areas that we need to get more understanding’ (Teacher KO, ti).

  ‘We’ll go in between the structure rather than follow from top to bottom’ (Teacher KE, ti).

  ‘I’ve started silent reading. Once we’re into the text they [students] read it silently, underline the kupu pakeke [difficult words] and from there we read it a second time with me’ (Teacher KO, Whole group discussion, tiii).
Pressley’s (1998) studies have shown that silent reading (Pressley, 1998; Morrow et al., 1999) is known to enhance comprehension and that children can learn appropriate strategies when they encounter challenges in texts whether or not they read aloud or read silently (Pearson & Duke, 2002). Children can take control of the text and ‘get’ the messages for themselves through teacher support and interaction with others where dialogue is focused, feedback on learning is guaranteed and where the learner’s knowledge is valued (Pearson & Duke, 2002). Children can learn from each other as they read.

- Brainstorming
  
  ‘I ako Whaea [lecturer] i ahau. Whakatakoto te īngoa o te pukapuka ma runga i tētahi pepa, i muri mai ka whakaputa ngā whakaro pai mo ngā mahi’.
  
  Translation: ‘Whaea [lecturer] taught me. Place [the] name of [the] book on paper. Afterwards, record all appropriate feedback for that work [text]’ (Teacher KU, ti).

One kaiako described brainstorming as something she did for all curriculum areas. Her focus on comprehension instruction at Time 3 was in contrast compared to Time 1 and Time 2 when she described her effort thus,

‘I try. I’m finding it very hard. There’s no way I’m going to keep up’ (Teacher KU, ti).

While some kaiako encouraged students to extrapolate the main ideas (Kintsch, 2003) from the text, and represented those ideas in a graphic form (Anderson & Pearson, 1984), another kaiako (Teacher KO¹, ti) believed that for comprehension to occur,

‘We must look at different levels of text. We have surface questions [and] deeper questions. So those questions generally follow the kupu [vocabulary] text questions’ (Teacher KO¹, ti).
whilst yet another kaiako (Teacher KO\textsuperscript{2}, tiii) commented that in addition to main ideas in texts, children in the early years were capable of summarising their thoughts,

‘I really try and [e] rapu te wairua o te kōrero kei reira. Ka kite koe i ngā tamariki e whai pānga ana ki nga kupu i roto i te āhua o te wairua o ngā kōrero. Tērā pea [e] kore [e] tāea ngā kupu i taua wā. Heoi anō mai te wairua o te mōhio ka pātai koe, he aha kē nga tikanga, ngā māramatanga o taua pukapuka? Ka puta mai a ngākau wa rātou ake nei kōrero’.

Translation:
‘I really try and find the spirit [essence] of the text [it is] there. You witness the children who have understood the words based on the spirit of the text. Perhaps they cannot articulate those words at that time. But through their [student’s] own knowledge one can ask, to what protocol does this text refer, what enlightenment emanates from this text? They [students] will explain from the heart in their own words’ (Teacher KO\textsuperscript{2}, tiii).

Kaiako descriptions revealed a widespread belief that comprehension instruction was inextricably linked to questioning. Although non-fiction (information) texts were not usual instructional reading materials (Dreher, 2002) little distinction was made between the purpose and the types of questions that focused on inviting tauira interpretation of global ideas contained in paragraphs (Year four) or sentences (Year three). The generation of questions as tauira were reading (Wharton-McDonald & Hampston, 2002) were described by kaiako as a strategy that supported comprehension. Questions about the activation of tauira prior knowledge were not discussed in the interviews.

4.1.10 Vocabulary Focus
Interview questions were posed to find ways in which teachers focused on vocabulary and identified new vocabulary, and to find out how meanings were derived using the context in the text, that is,
‘I noticed that you focussed on particular words by... Why did you do this? What other ways might you focus on vocabulary? How did you find out what words the children don’t know or understand?’

or, if kaiako did not focus on any individual words,

‘What ways have you used to focus on vocabulary? How did you find out what words the children don’t know or didn’t understand? Why did you do this? What other ways might you ask children for clarification of word meanings? Why did you respond the way you did? What differences have you found when you’re focussing on vocabulary in non-fiction texts compared to fiction texts?’

Kaiako described the range of ways in which they focussed on vocabulary, mainly by,

- Locating dialectical differences and finding words in own dialect (2 teachers),
  ‘Most of the stories are not written here [Tai Tokerau] so it’s not only the word we are worried about. It’s actually the whole sentence structure and the dialect that’s coming across [in the written texts]’ (Teacher KE, tii).

  ‘They [the words in the written text] were different to our dialect kupu foreign to our area ka huri anō ahau ki te whakamārama’

Translation:
‘They [the words] were different to our dialect, words foreign to our area I turn my attention to providing meaning’ (Teacher KO, tii).

- Locating new vocabulary and finding different meanings (3 teachers);
  ‘The other one I think that we use in reciprocal reading had been the one where, they’ve [students] had to build up their vocabulary list and find examples’ (Teacher KOE, Whole group discussion, tiii).

And if students still did not ‘get it’,
‘Mahi kainga [homework], they go home, they learn it, they come back’ (Teacher KO¹, Whole group discussion, tiii).

Two kaiako took the following approaches,

- When using dictionaries,
  
  ‘I identify kupu hou [new vocabulary] then we look in the dictionary’ (Teacher KO, ti).

  ‘Mine is not question–based. It’s just like a format that they [students] go through. They [students] go through the words that are not clear. They [students] write down meanings. They [students] are older so they [students] use dictionaries’ (Teacher KA², tiii, Whole school group discussion).

Another kaiako described another way in which she encouraged learning new vocabulary, if children were about to be confronted with a new word,

- By using the homework concept in a different way,
  
  ‘The only real preparation for this is spelling. What we expect from the words we get. As I’ve said, they take the words home, kōrero with their parents. Because we’re using them all the time [such as] stirring, whakaranutia – that was a new word. That was to go home, to use it when they cook or help. It’s just wonderful’. (Teacher KA, ti)

- Asking for student interpretations of new words (1 teacher);
  
  ‘[Because] A lot of our students are second language learners. They haven’t got a huge baseline that they are drawing from so if the word is foreign to them sometimes they miss out the meaning of the whole sentence because of that one word. I’ll always ask for their [student] interpretation because they’ve [students] heard the text’ (Teacher KE, ti).
In contrast, one teacher considered that students ought to find the meanings of new words by themselves. She believed that given information she had provided, students progressed better through the process,

- By providing students with an initial letter clue to a word;
  
  [The kaiako had written the initial letter of (a word being discussed) on the whiteboard],
  
  ‘E hiahia ana ahau ki te whakamahi i o rātou hinengaro kia taea ki te homai he kupu, ana kore au i hoatu te katoa. Pērā taku āhua mo nga tamariki kia haere whakamua’.
  
  Translation:
  ‘I want them to use their minds so that they give me a word I don’t give them the [complete] word. That’s my way to help the children progress’ (Teacher KO, tii).

- Explaining new vocabulary in context (2 teachers);
  
  ‘If it’s an unfamiliar text then we’ll do the interest words before we even start reading it, so the story isn’t lost on them [students]’ (Teacher KE, ti).

  ‘Kupu [words they didn’t understand we’ll go through and use it [words] in rerenga kōrero [sentences], a-waha [orally], a-pānui [reading], a-tuhi [writing] and highlight’ (Teacher KU¹, tii).

Another kaiako used learning opportunities (across curriculum) by,

- Learning vocabulary in one curriculum area and increasing learning and understanding [about the vocabulary] by using in another learning context,
  
  During our te reo sessions we may come up with kupu [words] that they didn’t understand in any sort of text and then we’ll bring it up and then we’ll go through it and use it in rerenga kōrero [sentences] ā-waha [orally] ā pānui [in text] ā tuhi [written] rānei so using it in te reo session times’ (Teacher KU², tii).
Kaiako focused on identifying new vocabulary items and vocabulary meanings by using some of the approaches outlined above. Mean score patterns for VOC were similar for Year three and Year four cohorts and suggested instructional effectiveness at the end of each year while results for CLO for all cohorts were mixed over two years. Comprehending non-fiction texts often means understanding specific vocabulary that carries major concepts and while lists of vocabulary were written up by kaiako (Ogle & Blachowicz, 2002) in pre-reading instructional activities only discussion related to surface meanings occurred.

Some studies (Anderson & Freebody, 1981; Wharton-McDonald, 2002) have identified a clear link between a reader’s vocabulary and a reader’s comprehension provided vocabulary is taught explicitly (Anderson & Freebody, 1981; Palinscar & Brown, 1984) and teaching vocabulary is a large task (Nagy & Anderson, 1984). Nagy and Scott (2000) argue that much vocabulary can be acquired ‘incidentally’ in rich contexts but Harmon (1998) observed that children were just as likely to make an incorrect inference as a correct inference when encountering a new word because inferring words from context is dependent on knowledge of language as well as understanding the contextual situation (Nagy & Scott, 2000) plus other factors like, for example, co-ordination of strategies; prior knowledge. There appear to be more reasons than not to teach vocabulary and comprises just a part of the knowledge needed to develop reading comprehension.

4.1.11 Follow-up Comprehension Activities
Follow-up questions related to post-reading comprehension activities sought to identify what kaiako believed were connections between reading activities and comprehension of text. Seven types of activities that followed shared reading were identified from kaiako descriptions included: sequencing and ordering activities; matching texts to previous days’ work; cloze activity; retell, recall, and inferencing
activities; planned visits; creating poems and waiata; story boards; wetewete i te reo (grammar and sentence structure).

- Sequencing/ordering text using caption cards (3 teachers);

One teacher (KE, ti) described reviewing the text with the class (composite Year 1 to Year 3 students) after the shared reading. This teacher had prepared another class-copy of the big book containing illustrations (drawn by children after the previous day’s reading), and enlarged text.

The activity began with children seated in a circle on the mat. The children selected caption cards (spread out in the centre) on which text was written. There were sufficient cards for each child – some with sentences, others with vocabulary they had studied, others with parts of sentences. Each child sat facing the teacher holding a caption card. The teacher read from the text in the class-copy big book. As she did so children read their caption card text silently. The teacher paused after reading a sentence or paragraph and gave children time to consider their caption card text. All students’ eyes roved the circle reading silently and searching for the correct caption card. If students thought they had or were told by other students [‘Ae, ko koe’. ‘Yes, it’s you’.] the matching caption card was in front of them, they read their text out aloud. Those readers were often the Year 1 students, and Year 2-4 students would assist them as appropriate. The caption card was then attached (using Velcro® buttons) to the appropriate page in the big book. Celebratory ‘high fives’ ensued.

In general, all teachers who carried out sequencing or ordering activities did variations on this theme - including paraphrasing sentences, attention to grammatical and structural features of sentences. But by far the most common sequencing and ordering activity was the ubiquitous paper and pencil worksheet writing task.

- Matching text activities to previous days’ work (1 teacher);

The kaiako described follow up worksheet activities for a narrative text (Melbourne) about what children and teachers did after school finished, such as (kaukau [swim], tākaro [play], ōrīi te pere [ring the bell]. The third activity on the worksheet required students to identify when school began and finished (using times in the text), and what children did after school (a writing task).
Can I Tell You Something?

‘He aha ngā mahi i te toru karaka [mutunga o te kura]?
Translation:
What do we do at three o’clock [the end of the (school) day].

‘They talked about that in their discussion yesterday. So the activity tried to go back over the whakaaro [thoughts], matching the activity to what they were talking about’ (Teacher KO, ti).

- Cloze activity (4 teachers);
For the cloze activity one teacher (Teacher KA, ti) gave the children a worksheet on which a paragraph taken directly from the text was printed. Random words were missing. The students used the text as a reference to find the missing words. The children appeared to be familiar with this activity and worked alone.

A description by another teacher using a [cloze] activity (similar to the one used above) was that cloze was,

‘Basically giving them [students] understanding of the text, what the story is about’ (Teacher KO, tii).

The teacher did not expand on this description.

Yet another (Teacher KO, tii) gave a page of text cloze activity to Year 3 students that was extremely complicated because of the sheer number of random words missing. The researcher was unable to complete the activity.

One teacher described using cloze as important because she [the teacher],
‘used words that hold the meaning of the text’ (Teacher KE, tiii).

Another described the cloze activity as,
‘The kids take from the text to support understanding with appropriate language’ (Teacher KI, tiii).

- Retell, recall, inferencing activities (1 teacher);
Retell, recall and inferencing were follow-up activities that were absent in most teacher descriptions at the ‘baseline’ phase but began emerging at the beginning of the intervention year.

One teacher used retell activities because,

‘They’ll [the students] be using vocab meanings’ (Teacher KU, tiii).

Another described inferencing and predicting thus,

‘Inferences, I know I do a lot of predicting’ (Teacher KU¹, tiii).

Yet another kaiako described beginning activities with inferencing because she believed that,

‘It [inferencing] assisted children in their retelling of the text’
(Teacher KU², tiii).

The kaiako did not explain why she believed this.

- Planned visit (1 teacher);
  One teacher (Teacher KO¹, tiii) described using the text as a part of a planned class visit to ‘look at real artefacts’ that were described in the text.

- Creating poems, waiata (songs) about text (1 teacher);
  Writing poems, songs was an activity described by one teacher as not only a language development activity but also comprehension activity.

  ‘We usually create a poem, a rotarota [poem], waiata [song] that helps them remember that particular kaupapa [theme]’ (Teacher KE¹, tiii).

- Story boards may be created digitally that allows combination of text, animation and sound (2 teachers)
  Creating story boards about the text was described thus by two teachers.

  ‘Kids do a power point display, add their [students] own words’
  (Teacher KA¹, tiii).
‘telling their [students] own story, on story boards’ (Teacher KA², tiii).

• Wetewete i te reo Māori (4 teachers)

Some teachers described the follow-up activities for wetewete i te reo Māori as paying attention to language use, grammar and sentence structure,

‘to ensure sentences make sense’ (Teacher KE, tii);

‘The tūpou [nouns], tūmahi [verbs], the tūahua [adjectives], and they [students] take out from text to support their understanding with the language that they are actually reading that helps them read for meaning’ (Teacher KI³, tiii),

‘[and] helps them [students] identify parts of speech’ (Teacher KI¹, tiii).

• vocabulary study, with particular focus on words from other (Māori) dialects,

‘kupu whakaritea [ōrite: synonyms] ki ta Tai Tokerau [find word in text that means the same as a word in Tai Tokerau], kupu rerekē [antonyms], kupu hou [new word]’ (Teacher KU, tii);

• or synonyms,

‘Today we are concentrating on certain text, he aha kē wētahi atu kupu he āhua rite tonu ki kātahi anō [for example]’

Translation:
‘Today we are concentrating on certain text kātahi anō [for example], what are also other word[s] that are almost similar to 1.then, [or 2. now for the first time, or 3. only just, or 4. to express appreciation of any quality (Teacher KU, tii).

Four (of twelve) major categories of activities identified by other studies (Trabasso & Bouchard, 2002, pp. 176-200) were practised and described by kaiako including,

• active listening (matching text and sequencing and ordering text);

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8 Literally: untie, unravel, release [the Māori language], used to identify Māori grammar and structure.
• question answering (students finding answers in text guided by teacher-lead questions);
• to a lesser extent mental imagery (by transforming text content into poems and songs); and,
• the use of a graphic organiser (use of the story board).

Trabasso and Bouchard also reported on story structure (p.181), summarisation (p.181), and multiple-strategy instruction or the ‘co-ordinated use of several cognitive strategies’ (p.183) amongst other strategies which included: comprehension monitoring by students (Elliot-Faust & Pressley, 1986); mnemonic instruction or the use of external memory aids (Levin, Shriberg, & Berry, 1983; Peters & Levin, 1986); prior knowledge (Anderson, 1984); and, question generation (Rosenshine, Meister, & Chapman, 1996). Apart from comprehension strategies used in the comprehension assessment (retell/summarising; recall; inferencing; vocabulary instruction; and context and meaning) and trialled at the commencement of the intervention year kaiako had received little to no preparation in cognitive strategy instruction or strategic text comprehension.

Year four patterns suggested that kaiako instruction may have been partially effective at the beginning (in five from eight components for the first cohort and in six from eight components for the second cohort) but at the end of each year the opposite occurred that may relate to the pattern of plateau or decreasing mean score patterns. Year three cohort patterns were similar but, unlike Year four, instructional effectiveness and the potential for continuing and increasing mean score patterns were suggested at the end of two years. Conclusions that may possibly be drawn from the cohort patterns could include firstly, that the assessment may have been better designed for Year three, and secondly, that additional time may have been required for some kaiako to learn and then change or modify instructional patterns of comprehension instruction.

4.1.12 Comprehension Monitoring and Assessment

Interview questions sought to identify how teachers monitored and assessed student performance. Kaiako described their use of some of the following approaches including,
• Taking samples of student work (3 kaiako),

‘I take samples especially with the little ones [Year 1, 2 and 3] everyday because you’re [teacher] trying to understand what they’ve [students] wrote [written]. They’re still forming an idea’ (Teacher KI¹, tiii).

‘What areas they are strong at. Perhaps they might be stronger at whakamārama kupu [explaining words] or at recalling, retelling. Where their [students] weaknesses are and focussing on the weaknesses’ (Teacher KI², tiii).

‘[and] whether the activities actually worked!’ (Teacher KI³, tiii).

‘Whether it [activity] worked, whether they’re [students] completing it on time, whether it’s too much for them [students] or too advanced or whether we have to simplify it [activity] a bit more for them [students]’ (Teacher KU¹, tiii).

• One on one, or group conferencing (2 kaiako),

‘I’m doing one to one conferencing like when I’m marking work [student] doesn’t pronounce it [vocabulary] correctly that’s when I go over it’ (Teacher KU, tii).

‘one on one [teacher/ student] questions. Whether they [students] understand what the text is about, one on one reading activities where they understand the question[s]’ (Teacher KA, tii).

• Home –school monitoring system (1 kaiako),

‘The other way I assess is if they are taking books home. I record that too [and] their choices of books because the beginning of the year it was one book, now its three books. That helps me to understand that they’re [students] really appreciating reading and they’re understanding [what they are] reading. Talking with their parents and making sure that they [students] come home with a
book and read it for pleasure, because it’s my job to help them [students] learn how to read’ (Teacher KU, ti).

- Reading back, going over text again (1 kaiako),

  ‘After reading, once the [other] children are doing their activity from the shared book we sit down in groups and I listen to two groups per day of children reading, and from that I’m doing different observation[s], [to] see what children are understanding and taking in’ (Teacher KE, ti).

- Running records (6 kaiako),

  '[and] then we also do running records for every child at least twice a term so [that] we can see what the children are doing and from that comprehension activities are joined to it’ (Teacher KE, ti).

  ‘We usually have the Pānui Pūkete [Pūkete Pānui Haere] system [referring to Cath Rau’s (1998) reconstruction of Clay’s (1993) Observation Survey] which we should be doing [ourselves]. Someone else does that but I like to know that myself. I usually know where my kids are at. I usually group from that information. That’s how I group most of the kids into the levels that they are at’ (Teacher KU, tii).

  ‘We have that much evidence. Why am I assessing? What am I assessing? Pūkete Pānui Haere, pū identification for the babies, teacher observation[s]. There are plot questions. How many plots/how many episodes? The text may [have] been too hard so through my evaluation I would bring them down a level. There’s no way they [students] will comprehend a book if it’s too hard. I think we [the school] only seem to focus on comprehension when you [we] have your [our] Pūkete Pānui Haere’ (Teacher KU, tiii).
'It depends [on] what my learning intention is [what it] requires of them [students] and sometimes we end up in another Marautanga [curriculum area] but that’s how I would feed on their [students] knowledge and understanding of that text’ (Teacher KU², tiii).

‘Whaea [named person] is doing running records. [She] helps us with running records. [She] comes in and we talk and [we] determine whether a child needs to go up a level, go onto another book or stay on the book [level]’ (Teacher KA, tii).

‘I set five questions for my running records. I will get them [students] to read the story again silently. I say, ‘I’m going to ask you five questions about this story’. So I’ll go into one recall, recount questions of what they see and identify in the pictures and text. Then I do a question that’s going to extend their thinking and I try one [question] that’s [more for] deeper thinking. So, as they’re [students] going up the level[s] the recall question gets one [point], deeper thinking questions get more weighting’ (Teacher KO, ti).

• Keep ongoing journal (1 kaiako),

‘[A] monitoring system, keep an on-going journal. Every week I get to read with two groups a day. And it’s through that, that tells me where they’re [students] at, where they’re going’ (Teacher KU, ti).

Many kaiako descriptions for monitoring and assessment for comprehension suggested approaches about what could be done to as opposed to what could be done with or alongside students. For example, there were few recorded observations where tauira were provided opportunities to express in their own personal views at the introduction, during reading or post-reading about information from texts or to draw from tauira what they already knew about text topics. The effect of little to no talk time may well be reflected in the mean score patterns that indicated, despite high reading accuracy, the generally low rates of tauira connection with text meanings.
Comprehension assessment is as much about learning specific strategies at current levels of knowledge and ability, as about predicting and teaching the next step (Vygotsky, 1978). Kaiako discussions revealed that scaffolding tauira through learning the process of reading complex text content and accomplishing complex tasks suggested that advanced teaching (Afflerbach, 2002) occurred for few tauira.

Kaiako described the running record as a part of the whole-school programme of reading assessment. Kaiako (6) took the running records for tauira in their classes primarily to determine the next reading level. Clay (1993) contends that unless teachers themselves conduct, interpret and use assessment data to inform practice then developing expertise in reading assessment is unlikely to follow. From discussions it could be concluded that assessment data was used mainly for summative purposes. Kaiako rarely discussed using data to inform practice in progressing tauira as competent comprehenders.

4.1.13 Comprehension and Te Reo Māori

The interview questions sought to identify what kaiako believed were connections between Māori language use and the comprehension of text. Kaiako described the general monitoring and assessment of the Māori language knowledge of students in the following ways;

- Reading and writing,

  ‘[if] they are writing and reading fluently, independently, [we do] formative monitoring. We do feedback and feed forward with AtoL’, having the criteria in place, the teaching point. To me the next step, as a group, as a class [and] when there is feedback from children sometimes I might feed forward from that [and] do this [activity] as well’ (Teacher KA, tii).

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9 The Assess to Learn Professional Development Project (AtoL) was designed to provide professional learning to teachers and leaders in the principles of assessment for learning, http://www.educationcounts.govt.nz/publications/schooling/27968/27984/1
• Print and vocabulary saturation,

‘I really thought it was important teach the pu [vowels, consonants and digraphs] first then the ku [consonant and vowel blends], but we’re looking at kupu [words]. It’s really important to make sure that the kids are print saturated, new kupu around the room, and we use them. I pre-read their books. I’ll put the kupu hou [new words] around the room so we keep using them as well’ (Teacher KE, ti).

This particular kaiako included a phonetic approach to teach reading in the early years at Kura.

• Direct observation,

‘How was [is] their reo [language] growing? Recently, [we were] videoing the children and their kōrero [talk in the playground] because one of our objectives for that was the pātai [questions] me ngā [and the] whakautu [responses] o ngā tamariki [of the children]. We took the interactive kōrero because it was away from the guided situation. [Named person] will come back and help us assess this’ (Teacher KO, ti).

• Developing own tests,

‘That’s a biggie, that’s a biggie. We have [our own] tests that we follow through from the beginning. When the children first enter school we test to distinguish the level of reo they’ve [students] got and also the level at home. At the end of the term we’ll use the same test to see if the children have improved’ (Teacher KE, ti).

A student’s reserve of knowledge and experience is considered one of the most meaningful contexts (Robson, 1995; McNaughton, 2006) by which teachers can begin to build language development in reading. Cummins (1984; 2000) conceived of language communication and language development generally, in terms of two distinct components: everyday communicative skills that are contextually supported
Can I Tell You Something?

by, for example, gestures and illustrations (BICS\(^{10}\)); and, the level of language required to understand academically challenging subject matter in the classroom (CALP\(^{11}\)), language that is often abstract and absent of contextual support. Kaiako descriptions indicate te reo Māori as additional to and apart from rather than integral to the comprehension process.

**4.1.14 Professional Learning**

The interview questions in this part of the discussion sought information about knowledge gained through specific focus on reading comprehension. In particular, successful strategies teachers had tried and what they might change or what they might do differently. The professional learning opportunities and connections within each site were also explored.

- Comprehension and non-fiction texts (1 kaiako),
  ‘[to] follow up, really look at non-fiction and fiction texts, text in book, research. Time management for me to be able to read, reading myself, so that kids are able to read themselves [and] understand [what] they [books] are about, learn [about] literacy’ (Teacher KA, ti).

- Comprehension and assessment (2 kaiako);
  ‘I need to learn [about] assessment [and] monitoring’ (Teacher KA, tii).

Kaiako-shared experiences both individually and Kura groups across all year levels. For example, such items as tauira checklists were shared at one Kura. Tauira provided independent feedback at specified times during a reading session about their progress. Comments made by students could range from: ‘I didn’t quite get that’; ‘we can’t understand what you were going on about’; ‘we don’t know what this is about’; ‘all done, today’. One kaiako remarked that she had to ‘go back and reflect on’ on the types of questions she had asked and found that ‘they [the questions] were all out of sorts’. The kaiako reported that student gestures and body language during feedback clearly suggested that ‘we’re not getting this’.

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\(^{10}\) Basic Interpersonal Communicative Skills (BICS)

\(^{11}\) Cognitive/Academic Language Proficiency (CALP)
Kaiako reported that instruction involved not only observations but included monitoring oral language use and written evidence to help make decisions about the next steps. An important feature identified by the group discussion was that colleagues could (and did) call on guidance and assistance from the collective experiences within their own Kura such as, for example,

- **Trying new things, open to trialling (3 kaiako),**
  
  ‘I think we always have to be open to new trials and new things that are going on. I think it’s forever developing. We [will] welcome people on board that are able to help’ (Teacher KE, tii).

- **‘I would like to try a lot of new things.**
  
  He mea hou tēnei [this comprehension is new].
  
  He pai ki ahau te mahi he mea rerekē [I like to work at different things] ēngari he rerekē te titiro ki a koe i runga i te pouaka [digital camera]. [But it’s different when you see yourself on film.]’ (Teacher KO, tii).

- **‘Probably, [there are] lots that I can learn in terms of literacy. Me pēhea te whakapakari i o mātou tamariki tōmuri [how do we strengthen our slow readers]. Assisting those [students] having difficulty with pānui [reading]. I’d like to concentrate in that area doing HPP12’**  (Teacher KU, tii).

Research studies have identified quality teaching as one of the most significant influences on learning (Hattie, 1999; McNaughton, Lai et al., 2004). Kaiako professional knowledge however has been found most effective when transformed to practice in the classroom (Alton-Lee, 2003; Phillips et al., 2001b). In Māori-medium settings ‘ako’ means to learn as well as ‘teach’, hence ‘kaiako’ and akonga or teacher and learner. Kura Kaupapa Māori are places in which teachers work as well as learn. Kaiako were compassionate and respectful to colleagues, students and whānau (families). Without exception, kaiako in the research could name a colleague.

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or support person within their Kura (and often in other Kura in the region) with whom they could work in a tuakana-teina relationship to improve their practice (Bishop, Berryman & Richards, 2001).

The tuakana–teina relationship in the Kura context is connected to whānau, experienced supporting less experienced (whether child or adult) with the expectation of benefit to all. For example, Kura tuakana in the study provided support (performed the elder role) for Kura teina (younger or new) who had yet to receive official designation as Kura in their own right, older children gave support to younger children, and experienced kaiako provided support and guidance for the less experienced but were equally prepared to learn from each other. Being Māori was how kaiako brought sense and meaning to their interactions with others. Many kaiako were new, to the profession and to Māori-medium education and experienced kaiako were few. Professional development requirements for the study needed different and diverse approaches particularly when trialling the comprehension assessment components prior to the beginning of the intervention year.

Many kaiako appreciated professional learning and professional development conducted in te reo Māori without leaving the Kura environment. Kaiako appeared to be well accustomed to seeking professional learning and development opportunities available to all teachers in Aotearoa New Zealand but could rarely access those same opportunities and services in te reo Māori for kaiako in Kura Kaupapa Māori. But kaiako could identify one teacher professional development provider for Tai Tokerau. The University of Waikato and the Ngā Taumatua project were identified as providers of te reo Māori professional development programmes with whom some teachers were engaged during the research study.

Kaiako spoke about the individual and collective need included professional assistance with,

- professional learning processes;

[speaking to researcher] When are you free? It’s not realistic that any of us (teachers in Kura KE) leave [to study] within the next year but we welcome people on board that are able to help. (Teacher KE, tii).
Yes, Whaea [named a senior teacher in own Kura] would be the one [that I would like to work with to explore how I might do things differently]. (Teacher KA3A, tii).

- contribution to the profession based on prior knowledge;
  
  *I’ve been teaching in Kura Kaupapa Māori for thirteen years. I’ve taught all the levels* (Teacher KI0, tiii).

- new knowledge and information uptake;
  
  *I have been teaching at this Kura since 2003. I have been a kaiāwhina (teacher aide) first and then a kaiako Oh boy!* (Teacher KI3, tiii).

- strategies in coping with changing knowledge for example, setting aside the old or incorporating the old with the new;
  
  *I pretty much do[what is] similar to Whaea[named another teacher on staff]* (Teacher KI5, tiii).

  and,

- knowledge about assessment practices in literacy;
  
  *I take samples [of children’s work] especially the small ones. You’ve got marking and checking and you are trying to understand what they’ve [children] written as they are still forming their letters* (Teacher KI1, tiii).

Kaiako changes occurred at all Kura in Year 3 and Year 4 classes throughout the study. Roll growth was identified as a factor in three Kura. Another factor was teacher supply, specifically, the availability of Māori-speaking kaiako and relief staff. Few kaiako were often expected to perform the roles of many.

Interviews and discussions related to comprehension and instruction explored aspects of kaiako theory and practice. Discussions revealed that decoding and print accuracy rather than meaning and comprehension (Ivey, 2002) appeared the general focus of
classroom instruction. Kaiako text selections ensured that instructional texts were mostly within the easy-to-read range (or at least 98% accuracy) and fluency levels (Clay, 1993) identified as critical for tauira to begin focusing on meaning. But despite high tauira reading accuracy rates, the comprehension assessment results overall did not support the general perception held by many kaiako that reading and comprehension was the natural consequence of one with the other. For kaiako, approaches like developing fluency levels alongside effective comprehension instruction could constitute the main dilemma.

The interview data suggests kaiako strength and weakness about knowledge and awareness of effective instructional practices. Some kaiako were clearly high knowledge. Others were low. Those with awareness about effective instructional practices were mainly kaiako at Kura where both Year three and Year four tauira raw score and mean score patterns consistently showed gains during the course of the intervention. These kaiako were aware of where to find and use professional guidance both inside and outside of their Kura. The Principal’s support was essential.

**Part II: Classroom Teaching Observations**

**Introduction**

Classroom teaching observations consisted of a total of thirty minutes teaching time captured (by video tape) in two separate fifteen minute sessions over two days. Filming coincided with the commencement of the planned class reading programme. Kura and kaiako were informed of the time and the day for individual in-class filming. Prior to this study no kaiako had ever been filmed in a classroom teaching observation.

Prior to filming kaiako were requested: to select one non-fiction text at the appropriate instructional level for their group or class; to prepare for the first day an introductory (guided or shared) lesson of about fifteen minutes duration using their individually-selected non-fiction text for capture on video; and, to prepare, for the second day, an appropriate follow-up lesson (guided or shared) and relevant activity, of about fifteen minutes duration, using the same non-fiction text (used in the first lesson) for capture on video.
Researcher and kaiako discussions were usually conducted on the second day of filming at the end of the school day in the baseline year.

A change occurred in the intervention year (at Time 3 and Time 4). Classroom teaching observations were conducted in the same format as for the baseline year but filmed in one 30 minute session (per kaiako). The kaiako were required to make non-fiction text selections appropriate to the instructional level(s) of the group or class, and plan the introduction of the selected non-fiction text, and an appropriate follow-up comprehension-related activity.

Some kaiako (three in one Kura) chose the option of being filmed by a colleague. The remainder of kaiako requested that the researcher or assistant researchers conduct the filming process. The video-taped classroom teaching observations formed the basis for kaiako discussions in Part II.

4.2.0 Rating the texts

The kaiako-selected instructional texts were rated high (3), medium (2) or low (1) according to: first, the potential for students to link to the topic – texts that enabled students to draw upon background knowledge, and social and cultural identity (Lai et al., 2003); second, text suitability, for example, texts that interested or extended student’s knowledge; third, text difficulty, for example, texts matched to recommended instructional levels (Ministry of Maori Development, 1996); fourth, language that enabled student feedback about vocabulary, language forms, and events in the text (Lai et al., 2003); and finally, picture or photographic images that enabled students to interact with the text (Guthrie, 2003) and begin to generate ideas about the text. Rating and scoring criteria for texts were described in Chapter two (Methods).

4.2.1 Coding Kaiako Exchanges

The kaiako exchanges described in Section 2.1.3(b), were coded in three broad categories: text, item or performance exchanges.
Text exchanges were verbal interactions which involved questions and/or comments, and/or evaluations about the text content, as well as connections between the child’s experiences and the text which included Prediction and Inferencing exchanges.

Item exchanges consisted of interactions which involved a question, and/or a response, and often an evaluation. More often than not, the questions involved were of the display type, that is, the kaiako already knew the correct response, and included Questions and Feedback and talk-related exchanges such as Extended Talk or Elaborated Talk.

Performance exchanges consisted of kaiako-modelled or partially-modelled interactions which contained text-related content with the intention of gaining a response. Tauira could either complete the sentence given, or imitate kaiako speech. Performance exchanges included language-related strategies such as Vocabulary exchanges, with either a Māori or English language focus.

4.2.2 Rating and Scoring Kaiako Exchanges
Rating and scoring kaiako exchanges were described in Section 2.1.3(b). The quality of exchange between kaiako and akonga can often indicate successful teaching and learning outcomes. Black and Wiliam’s (1998) research identified key factors related to self esteem and successful learning such as: providing effective feedback; active student engagement in learning; fine-tuning teaching from actual results; the ‘profound’ influence of feedback and assessment on the motivation and self esteem of learners; and, student self-assessment and how to improve (p.4). Conceptually, these factors are consistent with the Māori principle of ako. That is, that reading comprehension learning goals are shared, students are involved in their own learning and assessment of it, and that the provision of feedback teaches students how to make decisions about what to ‘do’ (and how to ‘do’ it) next in order to develop confidence in their own power to improve their command of understanding written texts.

4.2.3 Rating and Scoring Kaiako Questions, Vocabulary and Feedback
Rating and scoring kaiako questions, vocabulary and feedback were described in Section 2.1.3(b). The following examples (Table 20) from an actual transcript
provided a guide to rating and scoring. Kaiako questions, vocabulary and feedback were the only exchanges subjected to further analysis.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Vocabulary</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Low 2 Medium 3 High</td>
<td>1 Low 2 Medium 3 High</td>
<td>1 Low 2 Medium 3 High</td>
</tr>
<tr>
<td>Teacher (kaiako) questions. Each instance is rated for clarity and consistency and/or the degree to which questions connect with gaining meaning from text at word, phrase, sentence or whole text level.</td>
<td>Teacher (kaiako) utterances that focus on a vocabulary item. Each instance is rated for the degree to which the vocabulary focus connects with gaining meaning.</td>
<td>Teacher (kaiako) utterances that focuses on feedback to a child about text. Each instance is rated for the degree to which it contains information that clarifies/evaluates/questions, and/or extends/elaborates, and/or restates/reworks a child’s response or initiation</td>
</tr>
<tr>
<td>1=Low: Little clear relationship/ connection with meaning from text at any level, e.g. Kei...? (Where...?).</td>
<td>1=Low: Vocabulary focus at the text surface level - sounds, letters in a vocabulary item e.g. He kupu hou? (A new word?)</td>
<td>1=Low: Non descriptive and does not provide the child with any information, e.g. Ae. (Yes.)</td>
</tr>
<tr>
<td>2=Medium: Some connection with text meaning, e.g. He aha te mahi a Māmā? (What is Mother doing?).</td>
<td>2=Medium: Asking for or giving a vocabulary item, e.g. Teacher: Kei te tāi aha tātou? (What is our compass direction?) Child: Te Tai Tokerau (The North.)</td>
<td>2=Medium: Contains some limited information, e.g. Ae. Te toa o te rā. (Yes. The player of the day).</td>
</tr>
<tr>
<td>3=High: Clear connection to text meaning, e.g. Ae. Engari, pānui anō, he aha ka aroha ai ia ki tōna Māmā? (Yes. But read again, why does she love her Mother?)</td>
<td>3=High: Exploring meaning at vocabulary level e.g. Child: He aha te kupu Māori mo te tackle? (What is the Māori word for tackle?13) Teacher: Kei tēnei rerenga kōrero. Māu e titiro. (In this sentence. You look.) Child: …ki te rutu. (… to tackle). Teacher: Ae. Rutu. (Yes. Rutu. Tackle.)</td>
<td>3=High: Elaborated feedback that clarifies and adds to child’s response. Includes teacher correction of child’s incorrect utterance; teacher response to child utterance with a question, e.g. Ae. tika. Kei hea te wahanga (o te tuhinga) ka whakaaaro pērā ai koe? Pānui mai, koa. Yes, correct. What part (of the text) leads you to believe that? Read it back, please.</td>
</tr>
</tbody>
</table>

Table 20: Examples of Ratings for Questions, Vocabulary and Feedback Exchanges

The study explored five specific comprehension components, in Section 2.1.2(c), thought to be implicated in the reading process without regard for how these components interact or how the reading comprehension process may develop over time (Urquhart & Weir, 1998). What was assumed was that the components described were found to be present, in varying degrees, in the reading comprehension process and therefore significant (Block & Pressley, 2002; Flockton & Crooks, 2001; Francis & Reyhner, 2002; Garcia, 2003).

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13 This example could also be coded as a language exchange.
The following parts of this chapter present snapshots of kaiako question, vocabulary and feedback exchanges and drawn only from the complete data sets at the beginning of the baseline year (Time 1) and the end of the intervention year (Time 4). Data as exchanges at two Kura were incomplete at Time 2 and Time 3 as permanent appointments to teaching positions had not been made. Data gathered from a small number of kaiako who taught in mainly composite classes resulted in data replication across Year three and Year four over two years. Nevertheless, all exchanges evidence from all the data was utilised for the purpose of reporting back to kaiako, Kura and their communities.

Part III: Year Three Kaiako Exchanges

4.3.0 Rating the texts
Kaiako-selected texts were rated from 0 (defined as texts that were too easy for the recommended instructional levels) to 15 (defined as texts appropriate for the recommended instructional levels) according to: (1) the potential for children to link to topic; (2) suitability for year level; (3) text difficulty for year level; (4) language complexity for year level; and, (6) images illustrating text (see Appendix VIII). The Ngā Kete Kōrero framework (Ministry of Maori Development, 1996) was the only guide available at the time against which text topic suitability and appropriate instructional levels were matched for materials written in te reo Māori.

Across the baseline year instructional texts selected by kaiako across Kura were rated (see Appendix VIII) from 0 (the lowest rating at Time 1 and Time 2) to 11 (the highest rating at Time 1 and Time 2). A rating of 8 to 9 (see Table 20) did not meet the Ngā Kete kōrero framework recommendations with regard to text suitability, text difficulty, and language difficulty. Across the intervention year (Time 3 and Time 4) however, instructional text ratings were such that most non-fiction text selections met or were close to meeting the recommended instructional levels across Kura excepting one. To begin shared or guided reading lessons kaiako, typically, sat facing tauira at the front of the room.

<table>
<thead>
<tr>
<th>Text Selections</th>
<th>Time 1 Baseline</th>
<th>Time 2 Baseline</th>
<th>Time 3 Intervention</th>
<th>Time 4 Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kura KA3</td>
<td>8</td>
<td>9</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Kura KE3(4)</td>
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<td>13</td>
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<tr>
<td>Kura KI3(4)</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>
4.3.1 Kaiako Exchanges

Kaiako exchanges (and Kura) are categorized by the letter K followed by a vowel (e.g. KA); followed by a number denoting the year level (e.g. KA3; KA4 or KA3(4) denoting a composite Year three and Year four class); then followed by the assessment time (e.g. KA3Time1). Altogether a total of 26 classroom teaching observations were conducted for Year three or Year three and Year four composite classes over two years. Eighteen classroom teaching observations (two observations of fifteen minutes per kaiako at both Time 1 and Time 2) were conducted in the baseline year, and eight observations (one 30 minute session per kaiako at Time 3 and Time 4) were conducted in the intervention year.

Figure 17 (below) shows the percentage of Year three kaiako total exchanges across all Kura over a fifteen-minute duration of classroom teaching observations at the beginning of the baseline year.

![Kaiako Exchanges Time 1](image_url)

**Figure 17: Year three Kaiako Exchanges Time 1**
The pattern of exchanges suggested a general classroom discourse which was largely kaiako controlled (Cazden, 1986). The Question, Vocabulary and Feedback categories produced the highest of the total percentages of kaiako exchanges at Time 1. Exchanges specific to the application of the three categories (Q, V, F) varied across kaiako in the observed classrooms. The data suggested that if kaiako chose to execute exchanges in one of three categories (Q, or V or F) then exchanges in other related categories were decreased. For example, Question exchanges could have possible high relevance to Prediction and Inferencing exchanges and vice versa, similarly, with Vocabulary and Elaboration and Language exchanges.

At Time 4 differences in the pattern of kaiako exchanges (compared to Time 1) can be detected (Figure 18) but such differences were variable across kaiako and included changes (for example, kaiako-control to tauira engagement), increases in some categories (for example, prediction and language-focused categories), and decreases (for example, questions, vocabulary and inferencing categories) in others. Over two years, no extended talk exchanges occurred and classroom management issues changed little.

![Figure 18: Year three Kaiako Exchanges Time 4](image-url)
The figures and explanations in the sections following provide details of exchanges in Question, Vocabulary and Feedback, the categories which produced the highest percentages of total exchanges over two years.

4.3.2 Year Three Kaiako Question Exchanges

Questions rated high, medium or low (that is, high = clear connection to text meaning; medium = some connection to text meaning; low = little clear connection with text meaning at any level) were examined for each kaiako. Figure 19 (below) shows the percentages of question exchanges for each kaiako at Time 1 (the beginning of the baseline year) compared to Time 4 (the end of the intervention year).

![Year 3 Kaiako Question Exchanges Time 1 and Time 4](image)

**Figure 19:** Year three Kaiako Question Exchanges Time 1 and Time 4

Ratings of questions were mixed at Time 1. Low-rated exchanges (lowest = 25% at Kura K0 to highest = 45% at Kura KA) occurred in almost similar percentages to medium-rated exchanges. The incidence of high-rated exchanges (lowest = 5% at Kura KA to highest = 100% at Kura KE) suggested that kaiako instruction provided some tauira with help in building meaning in stages while simultaneously developing knowledge and experience at the text processing and meaning-making levels (Flood, Lapp, & Fisher 2002). Mean score increases for the first cohort over the first year indicated that some tauira produced individual high scores at the beginning of the first year but not so at the end. Kaiako exchanges, reflected in tauira mean scores,
indicated that questioning could have been effective in six from eight components (CON, SEQ, TRMV, TRMGS, INF and VOC) but less effective in two others (REC and CLO) over the first year.

High-rated question exchanges were used by one kaiako (see Kura KE) at Time 1 whose format included not only answer-type but generation-type questions. The kaiako made specific references to information in text (events, temporal elements, people, activity, vocabulary) with questions that enabled tauira to relate information to their own lives and understanding and express such understanding in their own words. The Time 4 kaiako exchanges data suggested more frequent connections with text meaning at the word, phrase, sentence or whole-text levels occurred in question-answering and question-generation. According to Trabasso and Bouchard (2002) questions in the former category ought to direct the reader’s focus to particular parts of the text content, whilst questions in the latter category considered the necessary skills required of tauira to complete comprehension tasks independently. However, the effect of the change from questioning in the style of the high practice- high knowledge kaiako versus that of the low practice- low knowledge kaiako is evident at Kura KE at Time 4.

The pattern of high-rated question exchanges in the following example was fairly similar to the pattern (of high-rated question exchanges) used by other high-knowledge- high practice Year three kaiako at Time 4. That is, usually kaiako posed questions and kaiako read from the text or kaiako posed questions and tauira read from the text. Discussion usually arose. The example described below illustrates the application of high-rated question exchanges at the sentence level with a group of three tauira in a Year three and Year four class.

**Kaiako**: Ko wai ka mōhio? (Reading from text) *Ka pakaru te haruru o te whenua o te hau kainga.* He aha tērā mahi? 
[Translation: Who can tell me? *The ground shuddered under the homefolk*. How does that work?]

Debate ensued among the students.

**Tauira 1**: *i pakaru* [they were overcome]. (Correct response).

**Tauira 2**: *tekoa* [with joy]. (Correct response).
Can I Tell You Something?

Tauira 3: *i pakaru te tūma o, o, Matakauai.* [The Matakauai team broke out [demonstration] (Correct response).

Such demonstration and modelling relate to what question-asking and question-generation processes might look like when exploring ways in which students might resolve questions about the text as they read. Practise in the question-answer and question-generation strategy may well assist kaiako to build levels of consistency and clarity in questions-asked as well as assist students in question-generation that connects with gaining meaning from texts.

In the following high-rated question exchange the kaiako was insistent that tauira found relevant evidence from the text (Mackey, 2003).

Kaiako: *He aha te take, ki tō whakaaro, ko te whutupaoro te tino kēmu pai ki a Teowai?* [What is the reason, in your opinion, that rugby is Teōwai’s favourite game?].

Tauira 1: *Na te mea i kite ahau i te pukapuka.* [Because I saw it in the book].

Kaiako: *Tēhea rārangī e kōrero ana mo tēnā i roto i te pukapuka?* [Which sentence says that in the book?].

Tauira 2: *Kei ko.* [There!].

Kaiako: *Engari, he aha te kōrero i roto i te pukapuka e kī ana ko te whutupaoro te tino kēmu?* [But where is the part that says that rugby is the favourite game?]

Tauira 1: (Reading text) *E pai ki a ia* [He likes it].

High-rated questions may lead children to understand large chunks of text. On the other hand, low or medium rated questions could lead the reader to processing only information required to respond to questions asked (Smith & Elley, 1997). So questions, with the purpose of gaining a clear connection to text, need to engage tauira in processing text beyond the limited information required just to respond to questions about text.
4.3.3 Year Three Kaiako Vocabulary Exchanges

Figure 20 (below) shows the percentages of kaiako vocabulary exchanges at Time 1 and Time 4.

In contrast to question exchanges ratings at Time 1 kaiako vocabulary exchanges were mainly medium-rated. Instructional connections to comprehension were principally via kaiako requests for or kaiako provision of lexical items in the process of helping tauira with understanding text content. The following example of a medium-rated vocabulary exchange was consistent with the kaiako providing a lexical item,

**Tauria:** *Ki te mahi i ngā dirt* [English].

**Kaiako:** *Ki te mahi i ngā* [te] *paru* [Māori word provided].

![Year 3 Kaiako Vocabulary Exchanges Time 1 and Time 4](image)

**Figure 20:** Year three Kaiako Vocabulary Exchanges Time 1 and Time 4

Kaiako talked about and listed unfamiliar vocabulary items during classroom teaching observations. When English-language vocabulary items were used by tauira (as in the example above) kaiako action fulfilled mainly a corrective purpose and a Māori-language item was provided by kaiako without exploring tauira ideas for suitable or other appropriate Māori items.

In the following example of a medium-rated vocabulary exchange (high = exploring meaning at the vocabulary level; medium = asking for or giving a lexical item; low = text surface focus) a vocabulary item was explored at the word level in a label-matching, label-reading activity for a composite Year three and Year four class.
Kaiako: He ōrite tēnei ki tēnā? [Is this [label] the same as that?]
Tauira: Ae [Yes]. [5 year old tauira reads. Had difficulty with recognising a word written in upper case].
Kaiako: He aha te pū tuatahi.[What is the first sound?]
Tauira: P [sound].
Kaiako: P [sound].
Tauira: PA [sound].
Kaiako: PA [sound].
Tauira: H [sound].
Kaiako: H [sound].
Tauira: PAHŪ! [Tauira beaming. Bang!]

Comprehension is known to be dependent on an extensive vocabulary (Anderson & Freebody, 1981; Block & Pressley, 2002; McNaughton, 2002). Vocabulary knowledge requires more than giving, listing or assisting tauira to decode print. Consistent attention to vocabulary instruction and an awareness of the receptive and productive aspects of vocabulary and language is important to the development of knowledge about understanding the world of written words and texts (Block & Pressley, 2002). Vocabulary is a measure of one’s knowledge about the world, has been identified as a major contributor to vocabulary knowledge and known to promote deep comprehension (Flood et al., 2002).

Ratings for vocabulary exchanges were also mixed at Time 4. Vocabulary exchanges swung pendulum-like between low- or medium rated, non-descriptive exchanges and high-rated exchanges consisting of elaborated feedback that clarified or extended the tauira response at three Kura. When the meanings of vocabulary items arose sometimes discussion was embellished with performances by kaiako and/ or tauira as demonstrated in the atypical example below. The performance illustrated below consisted of high-rated vocabulary and high-rated feedback exchanges,

Kaiako: (Stands to demonstrate sideline action at the rugby field)
E tū ana rātou ki te taha o te whutuporo. [They stood on the sideline].
Can I Tell You Something?

*Haruru te whenua me* (words ‘mai i’ is correct usage here – use of ‘me’ related to second language learning: grammatical correction made by researcher) *tēnei*. [The ground shook from this [action] demonstrating foot stamping action].

*Koia te whakamārama o tērā ka haruru te whenua o te hau kainga.*

[This is a meaning of that (sentence) the ground shuddered under the homefolk].

*Me tana kī ‘Yay! I wini, i wikitoria mātou!’* [And he said, “Yay! We won, we are victorious!”]

Such performance exchanges can provide tauira with some understanding about written concepts by developing relevant aspects of schema (Rumelhart, 1981) that tauira already possess. For example, tauira all belonged to a rugby club but they did not understand the metaphorical reference to the ground shaking under them. In order for schema to develop and grow relevant vocabulary that links what students read about to what they already know is necessary for comprehending texts. So, prior vocabulary discussion (Smith & Elley, 1997) when using instructional non-fiction texts is important in preparing students to access relevant schema.

4.3.4 Year Three Kaiako Feedback Exchanges

Figure 21 (below) shows the percentages of kaiako exchanges and the quality of feedback provided at Time 1 and Time 4 (see Table 15).

Ratings for kaiako feedback exchanges at Time 1 were somewhat similar to question and vocabulary exchanges (at the same time). Feedback occurred in about the same percentages for low- to medium-rated exchanges and contained limited information for tauira in clarifying, extending, elaborating or reworking a response or initiation. Hattie (1999) stated that feedback ought to provide information to find out why (and how) tauira understood or misunderstood (p.11) and what information tauira needed from kaiako in order to transform and grow their own understanding and learning.
Mean scores for the Retell components at Time 1 suggested classroom instruction that may have been less responsive to tauira ideas about texts, contained less informative feedback relevant to tauira responses and/or less effective questioning in the provision of feedback that enabled tauira to make global connections to text content. Essentially feedback exchanges could have better indicated to tauira that kaiako understood: what they knew (and how they knew); and, what they were thinking as they were reading. Kaiako modelling of such strategies were not observed.

Ratings for kaiako feedback exchanges at the end of Time 4 are also shown in Figure 21. Feedback exchange ratings were mixed. Low-rated exchanges occurred in almost similar percentages to high. Mean score increases occurred at the end of each year in some components but were less systematic in others. The indication could be that instruction may have been variable and less effective particularly in the Recall, Inferencing and Cloze components over two years. Effective instruction may have been more effective at the end of each year but less so at the beginning.

The incidence of high-rated exchanges suggested that feedback contained information that assisted tauira in clarifying and extending understanding of text meaning including aspects of vocabulary. The following was typical of the high-
rated vocabulary exchanges used by high knowledge kaiako which were initiated by tauira-generated questions as exemplified in the following vignette.

**Akonga**: *He aha te *rata*? [What does *rata* mean?]

**Kaiako**: *Kei hea tēnā?* [Where is that (word)?]

**Akonga**: *Konei* (Reads) *rata a Teōwai*. [Here (Reads) *rata a Teōwai*].

**Kaiako**: *Kua tino* (Reads) *rata a Teōwai i te āhuatanga o te paoro*. [Teōwai is very (Reads) familiar with the rules of the ball (game).]

**Kua tino pai ki a ia kua tino hiahia ia, he mea pai ki a ia*. [He really loves it, he wants (to play) it. (For him) it’s a good game].

**Mēnā ka rata atu koe ki tētahi tangata, ko a ia tō hoa.** [If you become familiar with a person, (s) he is (will be) your friend].

**Akonga**: *Ae* (Nods). [Yes].

Kaiako vocabulary exchanges of the type described suggested opportunities for the development of the elaboration exchange, and vice versa. The kaiako extended the contextual meaning of ‘rata’ from the basis of familiarity with the nuances of the rugby game to everyday situations involving friends. Feedback exchanges were closely allied to vocabulary and elaboration exchanges as information contained within the different types of exchanges enabled kaiako to remain with the instructional status quo, and/or modify their instruction; and/or modify the activity (Black & Wiliam, 1998).

Prediction exchanges were observed at Time 4 in two Kura. Exchanges close to predictions were mainly illustration-based as opposed to text-based. The instructional implications for prediction exchanges differ for non-fiction and narrative genres. When using non-fiction texts for instruction aspects of learning about such things as visual elements (e.g. photographs, illustrations, diagrams, maps, graphs, and timelines) assist the reader to access information about topics. Predictions may then be based on what we already know, what we want to know and what we want (expect) to learn (Kristo & Bamford, 2004). In contrast, the visual elements in narrative texts may differ in the connection to accompanying text (for example, in narrative texts for emergent readers visual elements assist to tell the story while in texts for independent readers visual elements may refer to aspects of the story). Instructional texts used
by kaiako at Time 1 and Time 4 were mainly non-fiction titles written in the narrative style. So prediction exchanges used by kaiako were generally based on the structure of narratives (plot, setting, characters, problem, and resolution). One important aspect of prediction exchanges, amongst others, is to assist readers to build relationships between ‘bits’ of text, and between the text and their own background knowledge whether non-fiction or narrative texts are used for instruction.

Extended talk exchanges were not observed. Few inferencing, elaboration or language-focused kaiako exchanges were observed over two years. Exchanges in the ‘Other’ category indicated that kaiako instructional time at the beginning of each year was diverted to the management of classroom or other issues unrelated to comprehension instruction or reading instruction.

**Summary**

Kaiako exchanges over two years revealed some effective reading instruction in some Year three classrooms and an assortment of pedagogical practices generally when applied to comprehension instruction. The evidence from the analysis of exchanges indicated that instruction had some features likely to be effective for some tauira. The percentage of high quality exchanges in all three areas changed somewhat. However, exchanges of elaboration, prediction and extended talk were infrequent.

Exchanges were generally kaiako-controlled. Question, Vocabulary and Feedback exchanges dominated kaiako engagement with tauira over two years. Across the three categories variability was indicated not only within each category but also across kaiako. Over two years, prediction, inferencing, elaboration and language-focused exchanges were not observed as usual instructional strategies for comprehension and may well have reflected the effect of text choices that were at reading levels lower than recommended.

Comprehension was one subject (of a selection already described) discussed during kaiako pre-teaching interviews and was raised only by researcher(s) during post-teaching discussions. Kaiako referred mainly to pānui (reading). An underlying perception gained from kaiako discussions and reflected by kaiako exchanges
appeared to be the general impression of comprehension and reading instruction as one and the same thing. High reading accuracy rates were suggestive of rapid decoding but appeared to have minimal impact on mean score results for the comprehension assessment particularly, for the Recall and Cloze components at the end of the first year and the Inferencing component at the end of the second year.

**Part IV: Year Four Kaiako Exchanges**

**4.4.0 Rating the texts**

Texts were rated as described in Part III (see Appendix VIII). Texts were rated either too easy (0) or (15) for texts that were better matched for topic suitability and instructional levels as recommended by the Ngā Kete Kōrero (1996) framework.

In the baseline year one from ten instructional texts selected by kaiako met the appropriate instructional levels as recommended by the Ngā Kete Kōrero framework (Ministry of Maori Development, 1996) with regard to text suitability, text difficulty, and language difficulty. In the intervention year seven from ten texts met or were close to meeting the recommended instructional levels as detailed in Table 22. In the context of overall difficulty of texts (from Time 1 through Time 4) kaiako from four of the five Kura made better selections.

<table>
<thead>
<tr>
<th>Text Selections</th>
<th>Time 1 Baseline</th>
<th>Time 2 Baseline</th>
<th>Time 3 Intervention</th>
<th>Time 4 Intervention</th>
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<td>Kura KA4</td>
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<td>Kura KU4</td>
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<td>9</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

**Table 22: Year 4 Text Ratings**

**4.4.1 Year four Kaiako Exchanges**

The only complete data sets gathered from Time 1 and Time 4 are reported on in this section and illustrate the kaiako exchanges observed in Year four and composite Year three and four classrooms. However, all kaiako exchanges data were utilised for the purpose of reporting back to kaiako, Kura and communities.
Figure 22 (below) shows the summary of Year four kaiako total exchanges at the beginning of the baseline year.

![Kaiako Exchanges Time 1](chart)

**Figure 22: Year Four Kaiako Exchanges Time 1**

The patterns of exchanges reveal similarities to Year three data. In general classroom discourse kaiako-control was evident. Some exchanges, for example, Initiation and Other, lacked relevance to comprehension instruction across kaiako while other categories, such as Prediction, Inferencing, Elaboration and Language-related, identified by other studies as highly relevant to comprehension instruction (Almasi, 2002; Alverman & Eakle, 2003; Block & Johnson, 2002; Lai et al., 2009) were not observed as an integral part of the kaiako instructional repertoire. Similarity, particularly in composite classes, was not entirely unexpected and generally observations in such classes revealed a degree of difference for instruction that better met the needs of Year three students.
At the end of the intervention year (Time 4) the patterns of exchanges for Year four kaiako show an emerging use of a variety of exchange categories, with the exception of Extended Talk exchanges. Tauira turns exceeded those of kaiako and, unlike exchanges at Time 1, suggestive of incorporation of instruction which may have increased opportunities for tauira engagement with texts. Overall, there was little difference in the types of exchanges kaiako employed during instruction.

Similarities to Year three were evident in the Question, Vocabulary and Feedback categories which produced the highest total percentages of all exchanges over two years. The category (Other category) related to classroom management was similar to Time 1 and almost unchanged at Time 4. Exchanges in the Question category could have impacted positively on Year four Inferencing, one of just two components for which tauira mean scores increased at the end of both the baseline and intervention years.

### 4.4.2 Year Four Kaiako Question Exchanges

The percentages of kaiako question exchanges at Time 1 and Time 4 are detailed in Figure 24.
The percentages of Question exchanges ratings were similar for Year four only kaiako at Time 1. As for Year three only classes, variation occurred across question exchanges. High-rated Question exchanges, which combined high cross-relevance to other comprehension components, such as Inferencing and Vocabulary could well have contributed to the only mean increases over two years for Year four cohorts.

![Year 4 Kaiako Question Exchanges Time 1 and Time 4](image)

**Figure 24:** Year four Kaiako Question Exchanges Time 1 and Time 4

Question exchanges for which kaiako used familiar language and/or experimented with language forms and played with vocabulary were generally ways that were observed to impact on tauira clarifying their own understanding of texts independently. The following was an example question exchanges for one Year four kaiako.

**Kaiako:** He aha pū te kaupapa o tēnei pukapuka?
[What is the main theme of this book?]

**Question/ Prediction exchanges**

**Tauira 1:** Whutupaoro.
[Football.]

**Kaiako:** He aha koe i whakaaro pērā ai?
[Why do you think that?]

**Question exchange**

**Tauira 1:** I te mea i kite ahau i te whutupaoro i runga i te karaehe.
[Because I saw (see) the football on the grass.]
Kaiako: Ka pai. He aha atu anō pea tētahi kaupapa o roto i tēnei pukapuka? [Well done. Is there possibly another theme for this book?]

Feedback/Question/Inferencing

Tauira 3: I te mea i whai tēnei pukapuka he taitara e pā ana ki te whutuparo. Ka taea e koe te kite i ngā tāngata e tākaro ana te whutuparo.

[Because this book title (Mackey, 2003) has a connection to football. You can see men playing, football.]

Kaiako: Pēhea te āhua o ngā tāngata e tākaro whutuparo ana?

[What is the disposition of the men playing football?]

Question/Inferencing

The example of the high-rated kaiako question exchange (above) served several purposes. High quality questions, in combination with other exchange categories, provided opportunity for rich feedback from tauira. However, high quality question exchanges were generally not sustained during classroom teaching observations across kaiako.

Question exchanges may contribute towards the joint construction of meaning from texts (Palinscar, 2003). At Time 1 question exchanges were connected to the title as well as images on the cover. Kaiako questions were focused mainly on sub-themes, characters and perceived dispositions of characters. Taura were observed to be actively engaged in talk in which kaiako controlled neither topics nor turns (Pearson & Raphael, 2003). At Time 4 the patterns of Year four kaiako question exchanges replicated those for Year three. Despite this Year four mean scores (for CON, SEQ, TRMV, TRMGS, REC, INF and CLO) decreased (that is, seven of eight components during the course of the intervention year) and perhaps illustrated an embedded instructional effect of long-used questioning approaches that bore little or no connection to meaning. Few kaiako question exchanges in classroom teaching observations engaged tauira in providing opinions, ideas or prior knowledge about topics in texts. Few questions were generated by tauira. So opportunities for tauira to self-test questions and ideas about texts were generally lost (Rau, 1998b). Comprehension assessments for the study indicated that while tauira read with high accuracy many required researcher prompts for questions related to components in the assessment.
4.4.3 Year Four Kaiako Vocabulary Exchanges

The percentages of vocabulary exchanges at the beginning of the baseline year are shown in Figure 25. Vocabulary exchanges were more often than not kaiako-controlled. The pattern of exchanges was similar to Year three dominated by medium-rated exchanges. For Year four kaiako Vocabulary was one of two assessment components for which consistent tauira mean score increases occurred for the Year four cohorts over two years.

Figure 25: Year four Kaiako Vocabulary Exchanges Time 1 and Time 4

The following example was typical of a medium-rated vocabulary exchange for Year four kaiako at Time 1,


[Look at [the word] tīpuna (grandparent). Same as tūpuna (grandparent) [in the Ngāpuhi tribal dialect].]

In the vocabulary exchange example above kaiako focused tauira attention on two items, tīpuna and tūpuna. The kaiako provided the dialectically similar vocabulary item for tīpuna [tūpuna] rather than requesting that item from tauira first.

In the low-rated exchange (below) the kaiako had read a passage from the text, then posed a question,

Kaiako: *Engari ko wai tōna īngoa?*

[So what is her name?]
Tauira 1: Ko Hine-nui-te Pō.
[The Goddess of the Night?]

Tauira 2: Ko Papātūānnuku.
[The Earth Mother]

Kaiako: Aini pea. [Perhaps.]

Tauira 2: Engari ko ahau i just guessed, kore au i rīti.
[I just guessed, I didn’t read.]

Kaiako: Aoo.

Kaiako opportunity to add value to tauira language-use vocabulary [just guessed] with appropriate Māori language vocabulary [i whakapae au] or to explore how tauira ‘guessed’ or inferred from available information provided were lost. Tauira response indicated background knowledge (for example, the names of gods) which was left unconfirmed by kaiako feedback. The (guess) inference could also indicate that the text might not have been unseen.

At Time 4 vocabulary exchanges overall were the same as observed in Year three classes except for some individual kaiako snapshots. In the following example a kaiako, in a composite Year 1 to Year 3 class, explored a vocabulary item as a part of the text’s introduction.

Kaiako: He aha anō he kupu mo pīrangī? [What is another word for pīrangī?] Kaiako writes word on whiteboard.

Tauira: Hiahia. [Want.]

Kaiako: E hiahia. Kia ora. Ōrite tēnei kupu te pīrangī ki te hiahia. [To ‘want’. Good. This word ‘pīrangī’ is a synonym for ‘hiahia’.]

Tauira-shared vocabulary knowledge in the group has been identified valuable scaffolding (Vygotsky, 1978). Kaiako confirmation of tauira vocabulary knowledge as integral part of instruction is known to improve comprehension (Block & Pressley, 2002). The development of vocabulary through the use of synonyms for words that may have been unfamiliar was one strategy adopted by some kaiako during the introduction of text at Time 1. The preferred kaiako strategy observed in classrooms was to discuss images on text covers.
4.4.4 Year Four Kaiako Feedback Exchanges

Patterns of Year four feedback exchanges indicated difference from Year three in the percentage dominated by low-rated exchanges. In some instances low-rated exchanges occurred in similar percentages to medium at the beginning of the baseline year (Figure 26). Low-rated feedback was generally non-descriptive and contained limited or no information that extended or elaborated on a tauira turn.

**Figure 26:** Year Four Kaiako Feedback Exchanges Time 1 and Time 4

Feedback in which kaiako focused on images as opposed to text was at times reflective of tauira engagement in the text’s subject content and knowledge about it. In the following example, which occurred during the introduction of the text, three different responses by three different tauira provided supplementary value in describing and extending the concept of team from concrete to abstract ideas (whutupōro/ football, dance/ haka, and famous/ rongonui) in the large group (n=15).

**Kaiako:** *He aha tēnei momo pikitia* [What is this type of picture?]

**Tauira 1:** He rōpu whutupōro. [A football team].

**Kaiako:** *Ae, ka pai. He rōpu whutupōro.* [Yes, good. A football team].

**Tauira 2:** He rōpu haka. [A (men’s traditional) dance troupe].

**Kaiako:** *Ae, he rōpu haka.* [Yes, a (men’s traditional) dance troupe].

**Tauira 3:** He rōpu rongonui. [A famous team].
Tauira 3 also introduced a new vocabulary item, rongonui [famous], was illustrative not only of tauira prior knowledge presented incidentally but also that tauira too provided rich vocabulary feedback.

At Time 1 there were no kaiako exchanges in the Prediction or Extended talk categories and few Inferencing. Although few Elaboration exchanges occurred high-rated Vocabulary exchanges were sometimes incorporated as illustrated by a kaiako using a text about the habitats of seabirds in the following example,

**Kaiako:** Whakarongo ki te kōrero [Listen to the text.]

*E kai mātaitai ana.* [They (the birds) are eating mātaitai].

*He aha te mātaitai?* [What is mātaitai?]

**Tauira 1:** He ika. Ika iti [Fish. Small fish].

**Kaiako:** *Ae. He aha te mātaitai.* [Yes. What is mātaitai?]

**Tauira 3:** Ka kai rātou i ngā kūtai. [Mussels].

**Tauira 2:** Ko ia, kai ia te tai. [He, he eats the tide].

**Kaiako:** *Kore e taea.* [It’s not possible [to eat the tide].

*Ko te kai mātaitai ko pērū i te pipi, ika.* [Mātaitai is (food) from the sea like cockles, fish].

*Pēhea te tai?* [What about the tide?]

**Tauira 4:** Tai timu [at] low tide].

The example (above) illustrates that tauira described the new term mātaitai [seafood] using familiar examples of food from the sea but experienced some difficulty in summarising the idea of kaimoana (seafood), a very familiar term for seafood throughout Aotearoa New Zealand.

There were no extended talk exchanges and few language-focused exchanges which usually focused on kaiako translations for English language vocabulary or synonyms for new or unfamiliar Māori vocabulary.

The quality of exchanges (at Time 1 and Time 4) was mixed. At Time 4 kaiako feedback exchanges patterns were similar to those for Year three. Feedback exchanges may have contributed to consistent mean score increases that occurred for inferencing and vocabulary meanings in context at the end of the baseline and the intervention years. Prediction and Inferencing exchanges occurred mainly at the
beginnings of new pages of text and initially focused on illustrations as opposed to text content. Similar (to Year three) was the absence of Year four kaiako exchanges for the Extended talk category throughout the study. There were few Language-focused exchanges and tauira mean score results suggested that in-depth discussion around global meanings and specific vocabulary in non-fiction texts were not possibly viewed by kaiako as areas of specific instructional focus for comprehension. Changes in the quality of kaiako exchanges were variable and exchanges which were high-rated were not consistently sustained (that is, as suggested by the tauira mean score data) during the classroom teaching observations across Kura.

**Summary**

Over two years the Year four kaiako exchanges patterns showed some similarity to Year three and also pointed to a major difference. The mean score patterns for Year three cohorts showed gains at the end of the both years versus Year four mean score patterns that trended downwards. Notwithstanding contributing factors such as composite classes and staff turn-over student mean score patterns could possibly indicate differential instruction.

While mean score patterns for Year four cohorts showed decreases at the end of each year effective comprehension instruction occurred in some classrooms and at some Kura. Mean score patterns suggested that for some individual tauira mean score gains at the beginning continued on an upward track at the end of two years but for others mean scores across Kura showed little or no change or decreased over the same time-frame. The exception was illustrated by the longitudinal tracking of the Year three (Cohort 1) through as Year four (Cohort 2) when mean scores over the course two years showed overall gains. That effective instruction may have contributed to consistent mean score increases and less effective instruction to mean score inconsistency was possible.

Other similarities to Year three included high kaiako-control and variability within exchanges across kaiako and across Kura. Classroom teaching observations patterns revealed that exchanges in the Question, Vocabulary and Feedback categories and in other categories, like for example, prediction, inferencing, elaboration and language-focused exchanges, were possibly as unusual in practice as choosing non-fiction texts
for reading instruction. Pānui (reading) and reading comprehension appeared to be as inseparable as the concepts of instruction as decoding and phonics.

Generally experienced kaiako provided rich interactions with tauira, as for example, through tracking exchanges quality for a Year three kaiako as class and/or year-group changes occurred at Kura KE, particularly, for question exchanges at Time 1 (see Figure 18), vocabulary exchanges at Time 4 (see Figure 19) and feedback exchanges at Time 4 (see Figure 20). The change from experienced kaiako to less experienced kaiako can also be observed and reflected in other Kura for Year three raw scores (Figure 7) and mean scores (Figure 9), and Year four raw scores (Figure 13) and mean scores (Figure 15) at Time 3 and Time 4. In the face of a context of frequency of low-quality exchanges which are known to be linked to vocabulary and more text-associated language learning (like for example, elaborations, prediction, inferencing and extended talk) some evidence of change for kaiako occurred. But the effects for tauira reading comprehension were mixed.

Understanding comprehension instruction in Kura may well rest in understanding the nature of change within the current instructional environment and beyond, for example, comprehension and assessment, comprehension and instructional intervention, and comprehension instruction of the future. Kaiako were confronted with instructional challenges over two years which appeared to occur on several fronts. For example, instruction related to high tauira reliance on the phonetic structure of te reo Māori language, high reading accuracy rates and a weak relationship to comprehension or perceived notions related to strategies such as question-asking and question-generation as the domain of kaiako. In terms of comprehension assessment were kaiako instructing to assess or assessing to instruct? In terms of indecision about instructional interventions, comprehension theory and practice then what are the implications for future comprehension instruction?

In the following chapter the discussion explores the results in terms of the patterns of tauira achievement, observations of kaiako classroom teaching, changes that occurred and the implications for comprehension instruction in five specific Kura contexts in Tai Tokerau.
Chapter Five
The Discussion

Ngāi Tāwake ki te waoku, Ngāi Tāwake ki te tuawhenua, Ngāi Tāwake ki te takutai moana 14.

Introduction

The quote describes aspects of the reading comprehension task that many tamariki face when using te reo Māori each day. It tells a real story. Children might look first for familiar words - for their hapū (sub-tribe) or maunga (mountain) or awa (river) then go on to find others like waoku (forest), or moana (sea) or whenua (lands) before they try to figure out the gist. They will remember stories their Nannies and Pāpā, and others have told. For tamariki of Ngāpuhi descent who live in the areas – it’s easy. ‘That’s me’, they’ll say. ‘I’m of those lands!’ They will know that Tāwakehaunga is their tūpuna (ancestor) – hence the hapū Ngāi Tāwake (the clan of Tāwake). It is a story rich in metaphor, personification and history. They will know that anyone else who uses the quote will have the same ancestry and cultural references, our Te Aho Matua.

Te Aho Matua provides the guiding philosophy and framework to which Kura Kaupapa Māori adhere in principle and practice. It forms the foundation upon which the Kura Kaupapa Māori curriculum (incorporating the National Education Guidelines) provides for teaching and learning in te reo Māori, and develop Kura policy and Kura guidelines for the respective roles of whānau, kaiako and Boards of Trustees. Te Aho Matua is the means by which the special character of Kura Kaupapa Māori can be identified from other (mainstream) schools. Te Aho Matua was written in Māori, is metaphoric and elliptical, and in legislation in Aotearoa/New Zealand has been interpreted rather than translated by the pioneers of Kura Kaupapa Māori.

But other stories that are told by elders and others may not be as familiar. Reading to learn from written non-fiction texts (then retelling them) was the purpose of this study and resulted in a re-defining of comprehension,

14 Ngāi Tāwake is one of the writer’s hapū (sub-tribes). The saying indicates the extent of the lands within its boundaries, and the wealth and variety of food sources from the forest (waoku), inland (tuawhenua) and the sea (takutai moana).
Reading comprehension in an English-speaking society like Aotearoa New Zealand could assume the reading and comprehension of English-language texts. The study however, was about tauira learning to comprehend texts written in that language, te reo Māori and kaiako comprehension instruction in an indigenous language. An over-arching goal was to contribute to the research effort in the regeneration of the Māori language.

The specific context for the research was a professional development intervention aimed at increasing the effectiveness of instruction within which there were three key questions.

1. What were the patterns of achievement in comprehension for Year three and Year four students in Kura Kaupapa Māori settings?
2. How did teachers teach comprehension in Kura Kaupapa Māori contexts when using non-fiction Māori language texts?
3. In Kura Kaupapa Māori what development of professional knowledge occurred before, during and after instruction? What was the effect of the professional development on kaiako and tauira?

In the following section the patterns of comprehension achievement presented in Chapter three for Year three and Year four cohorts are discussed and include: the general tauira profile; achievement in the comprehension assessment components (and sub-tasks); and, te reo Māori. Discussion about the kaiako classroom teaching observations presented in Chapter four follows and includes: the kaiako comprehension instruction profile; kaiako text selections; kaiako exchanges; teaching and learning in te reo Māori; and, the professional development intervention and the effects on kaiako and tauira.

### 5.1.0 Tauira Patterns of Achievement

*The General Tauira Profile*

The reading comprehension profiles have revealed both similarities and differences in achievement and instruction experiences for Year three and Year four tauira. Mean
score patterns for Year three cohorts illustrate a growing trend (from the beginning to the end of study) whilst the mean score patterns for Year four cohorts fell. Both Year three and Year four cohort profile patterns (in four out of five Kura) illustrated similar strong points for vocabulary meanings in context. The Year three profile pattern for retell was stronger than for Year four from beginning to the conclusion of the study. The reverse occurred however, for recall, inferencing and cloze, with the Year four profile pattern pointing to strength. It appears that Year three cohorts were strong when talking about text content while Year four showed greater consistency when talking about content and, arguably, when applying background knowledge in context. The summer effect (Lai et al., 2009) was not found to adversely affect achievement patterns.

Instructional profile patterns for kaiako show that while some exchanges (for example, questions, vocabulary and feedback) occurred most frequently (in observations of classroom teaching) the tauira profile patterns appear to show that students achieved despite little or no occurrence of other exchanges (for example, predictions, inferences, elaboration, language-focused and extended talk). Learning how to use the strategies required for completing tasks, like for example those contained in the comprehension assessment, are strategies that some children may often find out for themselves.

What the teacher does and what the student learns (Hattie, 1999) are indelibly connected in informing the teaching and learning process. According to Morrow, Gambrell and Pressley (2003) however, it takes time for teachers to introduce the broad range of comprehension processes. Most children need to be taught comprehension strategies over time in order to become proficient readers (Gaskins, 2003). Even then, there is considerable uncertainty about whether students use such strategies. The reader needs to be aware of when comprehension is taking place and when it is not. Comprehending text is now known to be a metacognitive process which includes identifying aspects of text that are clear, what is not clear (and why) and how and when to engage strategies to restore understanding.
Achievement patterns for the two cohorts of Year three students over two years were generally higher at the end of each year compared to the beginning in contrast to students in Year four. A combination of factors may have played a part (e.g. teacher instruction, the selected comprehension assessment texts). While achievement patterns show that most students possessed highly developed decoding skills the relationship between reading accuracy rates and reading comprehension achievement patterns was weak. A possible explanation may have been a tendency toward tauira dependence on the phonetic regularity of te reo Māori. Whilst successful decoding is known to be a necessary condition for effective reading it is known to be insufficient for comprehending text content (Block et al., 2002; McNaughton, 2002; Perfetti, 1977). So students got the words right but may have compromised on meaning.

Good readers are thought to be good predictors of the global meaning not exact words (Smith & Elley, 1997). Possible instructional focus on meaning at the global as opposed to the word level could assist students in the process of knowing and then choosing and using strategies (S. Paris, 1991; S. Paris, Cross, & Lipson, 1984) from a hierarchy of strategies (Block & Pressley, 2002) such as, for example, knowledge of content, knowledge about how language works, and knowledge about the conventions of print to help make sense of what they are reading (Smith & Elley, 1997). Paris and colleagues (1991; 1984) suggested that teachers intersperse questions throughout the time a child is reading aloud. Such questions bring to bear the child's understanding as well as what the child knows, how they know, and if they don’t know how they might find out (cited in Block & Pressley, 2002, p. 87).

It appeared that several instructional strategies were identified which high scoring students in the study appeared to utilise (such as, learning how to use the text structure, and how to help make sense of the content, the vocabulary and the context). For example, high-scoring students showed an awareness of how to scan illustrations, captions and sub-headings (Block et al., 2002; Rumelhart, 1981) and had begun to develop the skills for synthesising and summarising main points in the comprehension assessment texts (Palinscar & Brown, 1984; Pearson & Duke, 2002).
a) *Retell*

Retelling presupposes that students possess the capacity to combine language knowledge and skill to share main ideas using their own words (Francis & Reyhner, 2002). Retelling from non-fiction texts assumes the cognitive skill to organise, sequence and describe (amongst other things) factual content in such texts. It is known that when such reading occurs children are better positioned to build comprehensive knowledge (Block & Johnson, 2002) because cognitive activity is motivated by comprehension processes when readers have extensive prior knowledge and extensive vocabulary (Morrow et al., 2003). However, Garcia (2002) and Cummins (1989) contend that knowledge transfer and strategies gained in one language is possible if cognitive proficiency in the first language is ‘adequately exposed’ to the second language (Garcia, 2003: p.34). While students may have acquired basic social and interpersonal skills using te reo Māori they need time to develop cognitive academic proficiency. Cognitive knowledge and strategy could possibly be still developing.

Retell patterns identified the possible need for specific instruction that enabled students to translate the written word into spoken language (Guthrie, 2003) with increasing levels of consistency over time. This could mean the development of consistent instructional strategies that help students to extend their knowledge and choices, for example, Māori vocabulary, through the use of a wide variety of texts written in Māori, and utilising the relationship between Kura and whānau (family), sharing texts from Kura at home (Hohepa, 1999) and talking about and sharing whānau experiences in a variety of contexts. It is important for students to realise the value of their own knowledge and their ‘real’ stories particularly when relating and comparing their own experiences to information learned from texts (McNaughton, MacDonald, Barber et al., 2004; Ministry of Education, 2003).

Although there was no requirement for te reo Māori used by students to be assessed in relation to its consistency with the text the retell patterns suggested that many students experience similar difficulty (in retelling) in using a range of vocabulary (Anderson & Freebody, 1981) and linguistic structures in full, complex sentences. Retelling (paraphrasing) text content requires skill (Francis & Reyhner, 2002) and may be the first post-reading indication of a student’s knowledge about specific text
content beyond what they already know. To speak with confidence during retelling demands that students learn how to incorporate new knowledge with old (Anderson, 1984) about a variety of topics. The complexity may possibly be greater for Year four and therefore even more text focus (such as bridging the gap between ‘known’ and ‘new’ knowledge and ways of explaining what the difference) could be needed.

b) Maharatanga (REC)

The achievement pattern for maharatanga showed that Year three and Year four cohorts across Kura were challenged by the maharatanga (recall) sub-task particularly at Time 2 and Time 3. Tauira used mainly a one-word, one-meaning approach to describe content. There was some evidence such as appeals to researcher (for example, He aha te kupu Māori mō...? What is the Māori word for...? ) that students knew what they wanted to communicate when attempting to articulate their ideas but were generally challenged by unfamiliarity with specific content vocabulary contained in the assessment texts. Instructional strategies could include thinking about ‘many ways of describing the same thing’, building vocabulary relevant to specific (non-fiction) text content and building knowledge about the unique properties of non-fiction texts, particularly, knowledge about its structure and organisational features to convey factual information. The organisation of such texts is generally hierarchical and sequential with use of headings, sub-headings and discussion about the topic. Students must be taught about and be familiar with such structure and organisation which is rather more different from organising information in narrative texts and students (Vellutino, 2003). It is fairly difficult to convey facts if the one does not understand how to recall or infer from them. For example, correct responses to Question 2 of the assessment using Text 4A, required Year four tauira to respond with ‘ka tupu te karengo i runga i ngā toka i roto i te moana’ [karengo grows on rocks in the sea]. Some tauira responded with ‘moana or ki te wai’ [sea or in the water]. Scoring criteria required that tauira described and contextualised the content in their own words. Many students were challenged by this task at Time 1.

Maharatanga (REC) skills for comprehension include sorting important details from the irrelevant, identifying similar ideas, summarising main ideas, and connecting themes (Morrow et al., 2003). Such cognitive activity requires guidance and practise over time (Pearson & Camperell, 1981). However, recall requires the development of
relevant background knowledge and demands the development of the appetite for extensive reading (Morrow et al., 2003; Pearson & Camperell, 1981; Smith & Elley, 1997). The comprehension need is for instruction that links tauira background knowledge with new information.

Perhaps unfamiliarity with the structure of non-fiction texts and even with appropriate instruction initially, students may have still experienced difficulty in making relevant connections between graphics and text. Picture cues were the first most reported preferred means by which students sought to clarify meaning in the comprehension assessment. Prompts (at questions 2 and 5 for recall, and questions 6 and 9) for assessment sub-tasks took into account picture clues and other sources of knowledge and experience but most students automatically referred to picture cues. Authors and editors of non-fiction texts use graphics (for example, print size, type face, punctuation, colour) to facilitate comprehension. Graphic cues may provide different roles in non-fiction texts (for example, emphasis, topic shifts) but may serve to ‘overload interpretations’ (Bernhardt, 1996:86). Sub-task scoring criteria took into consideration the developing bilingualism of all students.

c) Inferencing (INF)

The Year four cohort pattern for inferencing was strong throughout the current study in contrast to Year three which was less consistent, particularly at Time 2 and Time 4 when increases could generally be expected.

The inferencing sub-task required that (for the text Karengo) Year four cohorts identified events in chronological order. Photographs illustrated the text. Jenkins and Pany (1981) cite Schallert who suggests that illustrations in some texts appear to possess little more ‘than a rehearsal of the text’ (p.170) as opposed to illustrating information central to the text. Pictures provide only a partial framework for background knowledge which may or may not affect children’s cognitive ability to interpret and infer from textual information. But there is no evidence to suggest that teachers could use pictures to improve a child’s comprehension of text (Jenkins & Pany, 1981: p.171). The initial understanding and construction of a story’s representation in the reader’s mind is regarded as an important contribution to what the reader might infer from the text (Trabasso, 1981). It follows that students who
learn to use the internal structure of non-fiction texts are better equipped to comprehend, remember or understand and therefore infer from key ideas (Ogle & Blachowicz, 2002).

d) **Vocabulary Meanings in Context (VOC)**

The achievement pattern for vocabulary meanings in context indicated gains (by both year group cohorts, across all Kura) with particular strength shown at Time 2 and Time 4.

The need for instruction that assisted and enabled tauira to explore and use a range of vocabulary was identified. Knowing vocabulary items and explaining such items in context can reflect the need to activate more complex language and cognitive abilities (Francis & Reyhner, 2002, p. 164). Text 4E was printed in a large font and contained photographs which illustrated a large, open-cast mine in Kalgoorlie, Western Australia. It may have provided tauira with initial challenge in terms of familiar vocabulary used in an unfamiliar context. For example, such vocabulary items as *hōrua* (a term for a pit or a hole) and *koura* (a term for gold ore which is also the Māori term for crayfish). Illustrations of desert conditions in (Kalgoorlie) Western Australia, a big crater and the absence of the ocean may have been challenging in terms of linking schema related to setting crayfish pots (a familiar activity) versus the concept of gold mining (an unfamiliar activity). Communicating the main points in texts assumes the ability to determine which ‘picture-bits’ fit with what ‘text-bits’ (Jenkins & Pany, 1981) and considered important when productive language used by second-language learners is the means by which understandings gained from texts may be communicated (Ogle & Blachowicz, 2002) given the absence of pre-reading discussion.

Non–fiction texts contain large amounts of new information and such information enters our lives on a daily basis through traditional media and new media such as the internet. Pre-reading discussion usually forms a critical part of the instruction for comprehending texts. The introduction and development of comprehension strategies could occur during discussion and could become internalised by students as the range of comprehension processes and the range of text types expands (Block & Pressley, 2003).
Ogle and Blachowicz (2002) contend that the most difficult task students face when comprehending informational material is that specific vocabulary needs to be explained (p.261) whilst Keene (2002) claims that in order for inferencing to occur proficient readers need to use prior knowledge-schema and text content to build meaning as they read. What this could mean is that exposure to a variety of texts is probably essential in conjunction with instruction that helps students to develop schema. For example, one of the assessment texts contained graphic images directly above the text (the other assessment text contained one page of text alongside a one page photograph) but raw scores indicate that students may have been unable to make the connection between the two ‘bits’.

Learners may encounter new and unfamiliar vocabulary within (as well as external to) the classroom context. Nevertheless, it is important to ensure that in-depth vocabulary teaching, scaffolding and modelling of appropriate comprehension strategies in the content area will over time, enable students to develop and use strategies to work out the meanings of new and unfamiliar vocabulary (Block et al., 2002; Pearson & Duke, 2002) with growing independence. Like adults, children need active practice in ways to explore vocabulary use in oral language activities such as sharing ideas, sharing opinions, story-telling and providing feedback. These competencies are used by proficient readers, and proficient readers are competent comprehenders of texts. Vocabulary knowledge provides a solid foundation for reading in general and comprehension in particular and helps students to learn new words as well as comprehending texts that contain new words (Sweet & Snow, 2003). Vocabulary predicts good reading comprehension (Alverman & Eakle, 2003) and good comprehension requires an extensive vocabulary (Morrow et al., 2003).

While vocabulary knowledge is known to have strong links to reading comprehension (Block et al., 2002; McNaughton, 2002; Morrow et al., 2003) the relationship is complex (Garcia, 2002). Children can perform well on topics for which they have appropriate background knowledge but less well on topics for which they do not. In addition, Garcia suggests that unfamiliar vocabulary could be a major factor in performance. Sometimes children developing as bilinguals may not know when to use prior knowledge and vocabulary knowledge, often responding to questions through ‘literal interpretations’ (p.32) of texts. According to Francis and
Reyhner (2002) the task may be related to the bilingual child’s expressive ability because ‘other linguistic and cognitive skills each play an important role in higher order uses of language’ (p.164). Simply knowing a word item is insufficient to complete the task.

Explaining a word item in context can reflect the need to activate more complex language and cognitive abilities. Bernhardt (1996, p.78) also found that second language learners typically recognised words before they knew their meaning. She stated that the ‘one word, one meaning’ attitude permeated much second language teaching whereas first language reading began with a close connection to oral vocabulary. The patterns could be an indication that students have the words but not necessarily the ‘right’ ones when expressing ideas regarding the specific vocabulary required for non-fiction texts. The patterns may possibly reiterate the need for instruction that encourages students to use text structure and text features to explain aspects of content (Keene, 2002). The re-interpretation of ideas however, requires an extensive vocabulary bank and the need to develop ways that incorporate strategies which promote the construction of large vocabularies (Garcia, 2002).

\(e\) Cloze (CLO)

The achievement pattern (CLO) for Year three cohorts showed that after Time 1 decreases occurred until the end of the intervention while for Year four cohorts gains were made at Time 2 and Time 3. The CLO sub-task required the use of strategies that returned the paraphrased paragraph to a meaningful and interpretable state (Pearson & Camperell, 1981). The pattern suggested that the challenge for some tauira (from Time 2 through Time 4) was reading the paragraph with words missing and trying to make sense of it all (Smith & Elley, 1997) while the pattern for others suggested that the paraphrased passage was ‘sufficiently comprehensible for the child to learn from it independently’ (Smith & Elley, 1997, p. 94). The cloze achievement patterns for the Year three and Year four cohorts suggested that students were not using, or did not know how to use the contextual clues or the surrounding text structure to assist them in the identification of words deleted from the text. The instructional challenge may be to explore approaches that help tauira to employ appropriate strategies (for example, when confusion arises about the author’s message) to enable tauira to learn about contextual indicators in text that lead to how
to identify and summarise the main ideas. The cohort patterns identified the need for instructional approaches to help tauira work out the global meanings in texts. However, the generation of productive language to complete both written and oral tasks is more difficult if children do not have the words.

Unfamiliarity with the idea of paraphrased texts also presented challenges in the current study because tauira were required to meaningfully reconstruct a (paraphrased) paragraph by inserting six words into six empty spaces (Francis & Reyhner, 2002). The task to complete the paragraph demanded tauira focus on global meaning and an awareness of some aspects of sentence structure and grammar. The consistent pattern across Year three and Year four cohorts was that nearly all tauira (99%) experienced difficulty selecting relevant vocabulary to describe or explain events in the text and then select one right word to put into the right space. Synthesising what the reader reads means that combinations of information from different sources (from different sentences on different pages, for example) must be attended to during a reading. The process demands that the most important ‘bits’ of information need to be synthesised in order for a reader to clarify own understanding (Keene, 2002).

Proficient readers and comprehenders possess extensive vocabularies to explain interpretations of text content. Comprehension of vocabulary in non-fiction texts requires the co-ordination of a number of strategies (for example, language knowledge, and context as well as background or prior knowledge amongst others). Vocabulary acquisition can occur incidentally but when taught comprehension is known to increase (Pressley, 1998). The ability to use a word is considered less difficult than defining it (Morrow et al., 2003). However, the correlation between word knowledge and reading comprehension is well established and in the context of the study suggests the need for instruction that assists students to build vocabulary to help explain and describe new concepts in unseen texts, and to interpret the content of texts whenever they read (Block et al., 2002).

Cloze was one of the most likely (73% likelihood) comprehension components (VOC was the other) for which tauira could gain low scores but if readers scored well (45% or better) it could indicate that the development of schema for vocabulary
and content of the text was such that they (readers) could make fair inferences about the topic (Smith & Elley, 1997, p.95). The challenge for students was how to use and describe features in the texts (for example, how to use illustrations, captions and subheadings that accompany text in non-fiction material) that enabled them to work out how to make sense of the content (Block et al., 2002; Rumelhart, 1981). It appeared that many students (from both cohorts) had yet to learn strategies to grasp what had been read and what had been understood (Trabasso & Bouchard, 2002). Insufficient vocabulary knowledge combined with an incomplete prior knowledge could mean that students may have encountered difficulty in constructing the gist. Understanding main ideas (Kintsch, 1998) as well as the collection of small ideas in text are reported to be important in remembering the gist (Michael Pressley, 1998).

The CLO sub-task required the capability and skill to synthesise important information at the early stages in tauira reading development (Palinscar & Brown, 1984; Pearson & Duke, 2002) and is cognitively different, for example, to tasks such as maharatanga, whakataunga, and vocabulary meanings in context in which summarisation-prediction-background knowledge protocols are brought to the fore. The cloze sub-task, in contrast, directs a reader’s attention to a text passage at the word level (Bernhardt, 1991b cited in Urquhart & Weir, 1998, p.157) with the expectation that based on information and knowledge gained from the text from which the passage was derived the reader will ‘pick up’ global understanding as she/he reads. The patterns across tauira could be interpreted as the need for instructional environments that encourage reading across a wide range of texts to assist the development of background knowledge (prior knowledge) and schema to help tauira to gain experience in building a range of vocabulary that proficient readers use whenever they read (Block et al., 2002) or talk about topics of texts.

A balanced reading programme should expose children to a diverse selection of texts. Despite the plethora of non-linear and non-narrative texts (like for example, procedural texts, hypertexts) currently available and accessed by children, non-fiction texts are scarcely used for instructional reading in primary classrooms (Pressley, 1998:271; Pearson & Duke, 2002:257). But reading in secondary schools is mainly expository and practising to read and comprehend non-fiction texts in the
early primary years (Ogle & Blachowicz, 2002) would appear to be an important strategy in that transition.

Te Reo Māori

The patterns of achievement (for both Year three and Year four cohorts) for te reo Māori vocabulary and te reo Māori grammar and structure showed gains across two years. Student reliance on a limited range of vocabulary was identified. For example, most students generally re-worked familiar structures or appealed for help from the researcher. Patterns for te reo Māori grammar and structure (TRMGS) suggested also that some instructional focus on the use of a range of grammatical structures had occurred. The pattern at the beginning of the baseline year (from a random selection (13) of transcripts) showed that tauira (8 from 13 students) preferred te reo Māori grammatical structures were *ka* and *kei te* to begin sentences and *me ka* to join ideas (which is not a grammatically correct construction in Māori, roughly equivalent to the English construction *and then*). The random selections identified a tendency for tauira to recycle vocabulary from a limited range. In the same sample (of thirteen transcripts) increases in grammatical structures occurred (from two language-use structures at the beginning of baseline year compared to an additional four language-use structures at the end of intervention year). Student sentence starters, in addition to those used at the beginning of the baseline year, included *E...ana, I te, Ko te,* and *He.* *Me* and *me ka* were preferred conjunctions. Tauira generally described events in assessment texts in the present tense.

The comprehension assessment required tauira to independently employ strategies as they read. Te reo Māori vocabulary (TRMV) and te reo Māori grammar and structure (TRMGS) patterns revealed that memorised chunks (Houia, 2002: 46) may have been employed by tauira. Kowal and Swain (1997 cited in Baker, 2001: p.363) caution that one of the challenges of language immersion contexts is that students reach ‘native-like’ competency in reading and listening but not writing and speaking. The challenge in terms of instructional intervention would be how to present ever-demanding language-learning contexts that enable tauira to learn specific vocabulary found in non-fiction and informational texts (Ogle & Blachowicz, 2002) and to draw on these in their own language.
The phonetic regularity of written te reo Māori may have lead tauira to focus on words rather than on global meanings conveyed by the texts. Tauira were able to talk ‘around’ but not ‘about’ specific text content may have experienced challenge in seeking alternatives to some vocabulary items. The relationship between vocabulary and language use appear to support the notion that whilst students show an aptitude for reading and listening, and engage in apparent native-like conversation (Houia, 2002; Kowal & Swain, 1997) the comprehension assessment required tauira skill to convert ideas presented in texts to oral descriptions by using their own language and background knowledge (Snow & Sweet, 2003). The instructional challenge is how to ensure students develop strategies as an ongoing process to figure out what information in texts provide meaning whenever new and unfamiliar words are encountered (Just & Carpenter, 1987). McNaughton (2002:192-193) has suggested kaiako modelling of language patterns to encourage effective encoding (and decoding) and therefore improve meaning-making. A well-developing vocabulary may not necessarily predict good comprehension but, good reading comprehension demands a well-developing vocabulary (Block, Gambrell, & Pressley, 2002).

Other researchers (Perfetti, 1985; Just & Carpenter, 1987) emphasise the dependence of high comprehension skill on high level skill in basic word identification processes. However, possible difficulties encountered in learning to comprehend written texts may be limited by background knowledge and conceptual vocabulary (Reutzel, Camperell & Smith, 2002) which may affect some passages in text but not others. While such research findings support the effect of background and word knowledge, the connections to features of written language, and comprehension of these, which are not contained in the student’s oral language repertoire, are still unclear. What is clear is that good comprehenders are better at decoding (Perfetti, 1985), hold advanced global language comprehension (Smiley, Oakley, Worthen, Campione & Brown, 1977), and possess superior metacognitive skills (Paris & Myers, 1981).

The current study highlights the need to have readily available te reo Māori assessments from which patterns of student achievement can be created. Kaiako must be able from such assessments to diagnose what students have learnt and design instruction (Paris, 2005) targeted to what comprehension learning and teaching needs to happen next.
5.1.1 Kaiako Classroom Teaching Observations

The Instructional Profile

The instructional approaches adopted by kaiako were very consistent. The general practice was to emphasise learning to read and included an instructional pattern across kaiako which involved a focus on single words. The profile of instruction could arguably suggest two things. First, kaiako beliefs about what works (Dole, 2003: p.179) and second, the opportunity taken by kaiako to explore comprehension instruction anew when confronted directly with what worked as observed in classroom teaching observations alongside the outcome of student results. It became evident that instruction for comprehenders using written non-fiction texts focusing on individual word meanings was insufficient. Comprehension instruction must focus on meaning.

Text Selections

Non-fiction texts were not usual reading materials for instructional reading in the Kura in the study, a trend in primary school classrooms already reported by other studies (Block et al., 2002; Block & Pressley, 2002; Dreher, 2002; Ogle & Blachowicz, 2002). It is noted that none of the texts selected by either researcher or kaiako were identified as assessment-specific material for assessment purposes. Texts selected by the researcher (for the comprehension assessments) and those chosen by kaiako (for instructional purposes) differed in several ways. Researcher-texts were closely matched to instructional reading levels (in contrast to teacher selections which were generally at lower instructional levels); included content-specific vocabulary items (which contrasted with little to no content specific vocabulary selections by kaiako); and were non-fiction (kaiako selections included some recount and were generally narrative genres even though kaiako were asked to use non-fiction texts). Of the assessment texts three from four were direct translations of the English language versions. Alverman and Eakle (2003) contend that while main ideas can be retrieved from translations cultural supports and the deeper purposes of the text may be lost.

Achievement patterns for tauira generally suggested that searching and locating information, despite familiar topics (e.g. gathering seafood and recycling), illustrated the difficulty and complexity of the cognitive processes involved (Dreher, 2002, pp.
when tauira attempted to comprehend non-fiction text content, sight unseen, in the absence of prior discussion in connecting new information with appropriate background knowledge (Anderson, 1984). At Kura KE the pattern of kaiako question exchanges (Figure 18) for Year three (Cohort 1, Time 1 and Cohort 2, Time 4) and tauira raw scores (Figure 7) and mean scores (Figure 8) suggested that kaiako instruction provided not only meaning-making assistance but also information location and search assistance for all tauira (Figure 7 and Figure 8). So quality kaiako exchanges at Kura KE during the course of two years were directly reflected in tauira achievement. The process of searching for and locating information independently in non-fiction texts, according to Dreher (2002), is one for which students may have received little or ineffective instruction.

Texts for instructional purposes, whether narrative or non-fiction, generally consist of a wide range of genres, authors, content, language and other elements of texts which potentially have the capacity to turn young readers ‘on’ or ‘off’ reading (Guthrie, 2003; Vellutino, 2003). The importance of the exposure to a variety of texts, for example, book floods (Smith & Elley, 1997) may potentially enable the acquisition of vocabulary and knowledge about the structure of different genres such as narrative versus expository texts. Although te reo Māori instructional non-fiction texts at Year three and Year four levels were of a limited range in 2003 (159 Māori language titles at Pīngao level and 89 Māori at Miro level) the number of titles written in Māori across genre was still growing and developing.

The study found a general need for kaiako to choose instructional texts at the current recommended reading levels and provide specific instruction that explored comprehension beyond the surface features of texts.

*Kaiako Exchanges*

Kaiako exchange patterns varied for question, vocabulary and feedback exchanges were similar (for both Year three and Year four kaiako) over two years. In general, more experienced kaiako provided high quality exchanges in their instructional interactions with tauira. While there is some evidence of change in pattern for the quality of some exchanges for some kaiako across Kura (for example, Year three and Year four kaiako question and vocabulary exchanges at Kura KE, Time 1 compared
to Time 4; question exchanges at Kura KO, Time 1 compared to Time 4 and question and vocabulary exchanges at Kura KU, Time 1 compared to Time 4) the effects on tauira reading comprehension were mixed. The pattern of kaiako exchanges suggested instruction that connected to meaning-making mainly at the surface level and fewer kaiako exchanges which explored meaning at a deeper level. In some instances gaining global understanding of messages in texts may have been one strategy that some tauira may have managed to work out individually.

Generally most children need specific instruction and extensive reading time for skill to develop. Learning how to synthesise and summarise main points (Palinscar & Brown, 1984; Pearson & Camperell, 1981; Pearson & Duke, 2002) and, learning how to make sense of text beyond the word level (Morrow et al., 2003; Trabasso & Bouchard, 2002) requires on-going instruction. Persistent and consistent instructional approaches in a variety of strategies enable all students to become proficient comprehenders and ‘step up’ as successful readers in preparation for schooling in the future. However, what is suggested by some researchers is that there is considerable uncertainty in the time it takes for students to learn such strategies, and uncertainty as to whether or not students use them (Morrow et al., 2003).

Kaiako Teaching and Learning Te Reo Māori
In Kura Kaupapa Māori the expectation is that te reo Māori is used as the medium of instruction. Kaiako in the current study used Māori as the medium of instruction for 100% of their teaching time. Many kaiako were second language learners (of Māori) and faced challenges in their classrooms including one kaiako who suggested that her level of Māori language ‘was not at the level where it just flows’ (KU, Ti3i). The exchange patterns reflected the communicative approach (Baker, 2001, p. 119) which reconceptualises the notion of language errors as a ‘natural part’ of the process of learning. According to Baker (p.119) effective language use may not necessarily mean correct grammar or fluency but whether meaning was communicated effectively during the exchange.

Most tauira did not appear to be affected by kaiako exchanges complete with language errors and in their responses and feedback to kaiako questions, vocabulary and feedback some tauira revealed some understanding of the embedded rules
underpinning the Māori language. Spontaneous utterances were observed during classroom teaching observations and both kaiako and tauira self-corrected aspects of ‘interference’ (of English-language constructions and vocabulary) in their own language.

Teaching and learning why and how basic Māori language structures work in daily contexts help build tauira confidence in their own knowledge around language use over time and translate to the independent facilitation of descriptions and explanations of events in texts. Instructional approaches that incorporate contextual dialogue exchanges between tauira - tauira, kaiako – tauira and tauira-kaiako might then be extended beyond pre- and post-reading discussion to comprehension abilities including explaining specific vocabulary knowledge, integrating new knowledge with old and learning to interpret important aspects of translating meaning into spoken language (Guthrie, 2003).

Te reo Māori provided the ‘wharau’ (shelter) for the study and there is every reason to believe that its regeneration is assured especially when younger children express a preference for reading and speaking using the language. However, as tauira progress through Kura the study has shown (from post-reading discussions with tauira, the in-depth analysis of which is not a part of this study) student commitment to using te reo Māori but admit to the ‘ease’ with which they use English to answer questions for want of appropriate Māori vocabulary. Students have developed the ability to transfer some comprehension knowledge and strategies acquired in te reo Maori to English. However, in the content of the texts used in the comprehension assessments Year three and Year four tauira were faced with unfamiliar vocabulary and in most cases unable to draw appropriate Māori vocabulary from their own word pool. Although students are developing bilinguals there was not an incident where the English language only was used. Inferences that can be drawn from mean score patterns is that students actually need to be shown how to make use of text content, how to make use of background knowledge, and how to articulate their ideas in language with which they are familiar when reading non-fiction texts.
The pressing need is to collect information about instruction as well as the ‘outcomes’ of achievement. One cannot make full sense of an intervention in the absence of one set of information without the other.

5.1.2 The Intervention and Professional Development

The professional development for kaiako was linked to instructional strategies identified as intervention goals based on classroom teaching observations discussed at three feedback sessions of the baseline year. More specifically the intervention was relevant to kaiako exchanges and clarification of comprehension assessment tasks. Kaiako worked alongside colleagues and whānau in an environment familiar to all. Kaiako and whānau partook of food, learned, had fun, laughed and encouraged each other. The approach was appropriate for kaiako and whānau. Indeed it is an approach which comprised of elements that suit every learner. Others who were not directly involved in the research became active in the learning process and their tamariki (children’s) results provided the impetus. The whānau approach to potentially improving literacy instruction (Hohepa, 1999) in general, and comprehension instruction in particular, was an information-sharing process (Morrow et al., 2003). The intention was to increase kaiako and community understanding about how instruction might focus on text meaning through using a variety of texts which were of similar reading levels to those used in the comprehension assessment. A selection of sub-task activities (retell, recall, inferencing, vocabulary in context, vocabulary meanings and cloze) were created with researcher assistance and were trialled in small groups. The process included feedback about texts, activities and next steps. Kaiako-whānau development was extended beyond Kura through to families and communities. Professional development and knowledge must be a part of a school-wide change process in order to sustain it. In Kura ‘school-wide’ includes students, whānau and Kura community members.

Kaiako interviews, discussion and data feedback were conducted within a Kaupapa Māori philosophy which incorporated traditional research methods. Kaiako stated that in viewing classroom observation video recordings they were able to reflect on current practice, new practice and share reflections with their colleagues and the community as preliminary data was provided to Kura, kaiako and participating
Can I Tell You Something?

communities. Kaiako awareness may have had some effect on cohort mean score patterns given the opportunity for teachers to view and discuss video-recordings of their classroom teaching and literacy practices with researchers following the classroom observations. Other New Zealand studies (Lai et al, 2003; McNaughton, 2004) have confirmed the potential for change when researchers and educators collaborate to talk about their work and in the case of reading comprehension, in aspects of instruction that are known to contribute to building knowledge and practice about comprehension (such as elaboration and extended talk) for Kura, kaiako and tauira.

The general implication from the study for professional development is that a more sustained, and coherent approach to professional development in Kura ought to occur in environments that are supportive and culture-friendly. Places where participants (kaiako and whānau) can engage with each other and discuss learning and achievement and question what is happening to their tamariki. The professional development for intervention was attended by whānau whose mokopuna (grandchildren) and tamariki were schooled in contexts other than Kura Kaupapa Māori.

The study provided a preliminary insight into the instruction and learning of reading comprehension for Year three and Year four students in Kura Kaupapa Māori contexts. It has explored the outcomes of comprehension using a comprehension assessment developed specifically for the study. What has been revealed is that student achievement can occur over time particularly when kaiako, whānau and the community of interest are provided the opportunity to explore the outcomes of teaching and learning collaboratively. To this end the pattern of student achievement for the study show findings that are similar to other New Zealand studies conducted in similar contexts.

Teacher practice for comprehension in Kura (given on-going professional development) may be more about developing appropriate tools relevant to comprehension assessment and using such tools to assist in quality decision-making about what happened and also draws a teacher’s attention to possibilities as to what could happen next in programmes of teaching and learning. Developing kaiako
practice is about continuing to explore current practice that could incorporate change directly related to retell, recall, inferencing, prediction and vocabulary meanings in context and reading comprehension. What the study has confirmed is that comprehension is sensitive to explicit instruction.

The intervention in teacher practice in Kura Kaupapa Māori contexts has been through a planned evidence-based approach. What was confirmed for kaiako was the comprehension story which unfolded and was confirmed by the student assessment data and its direct relationship to the classroom teaching observations data. The strategic approach to kaiako intervention in Kura taken by the study confirmed positive shifts in both teacher instruction and student learning can occur over time.
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Hohepa, M., Williams, N., & Barber, J. (2006). *Whakawhanuitia te Hinengaro: Broadening the Mind. Reading to learn in te reo Maori: Reading comprehension and language*

Ivey, G. (2002). Building Comprehension When They’re Still Reading the Words. In C. Block & M. Pressley (Eds.), Comprehension Instruction: Research-based Best Practice (pp. 234-246). New York: Guilford Press.


McNaughton, S., MacDonald, S., Barber, J., Farry, S., & Woodard, H. (2006). Nga Taumatua - Research on literacy practices and language development (Te Reo) in years 0-1 in Maori medium classrooms. Wellington: Ministry of Education.


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Appendices

Appendix I: Comprehension Assessment Year 3 Text A

Reanga 3A: Ngā Kaioi me ngā Kaikiko; pp. 8-11, Tūhono Tuatahi, 2001

1. Tāruarua/ tārua(tia): Retell
Kōrero tātua mai anō ou ake māramatanga mo ūnei kōrero pono.
Te rite me te rerekē o ūnei momo kararehe – āhua, kai, pēhea te kai, nohoanga, ki hea, niho

<table>
<thead>
<tr>
<th>Maharatanga: Recall (REC) /12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pikitia (Picture)</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>2. Ko ēhea kararehe ka kai ota?</td>
</tr>
<tr>
<td>4. He aha ngā niho e hiahiatia ana mo te kai ota?</td>
</tr>
<tr>
<td>5. He aha ngā niho e hiahiatia ana mo the kai kiko?</td>
</tr>
</tbody>
</table>

Whakataunga: Inferencing (INF) /12

<table>
<thead>
<tr>
<th>Whakataunga: Inferencing (INF) /12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pikitia (Picture)</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>6. He aha i rerekē ai ngā niho kaiota, kaikiko rānei?</td>
</tr>
<tr>
<td>7. He aha ngā tau ka taea ai te pēpi t e kai ota te kai kiko rānei?</td>
</tr>
<tr>
<td>8. He aha ētahi momo kai ka taea e ngā kararehe kaiota te kai?</td>
</tr>
<tr>
<td>9. He aha ētahi momo kai e kainga ana e ētahi momo kararehe kai kiko?</td>
</tr>
</tbody>
</table>

Whakamārama Kupu: Vocabulary Meanings (VOC) /9

<table>
<thead>
<tr>
<th>Whakamārama Kupu: Vocabulary Meanings (VOC) /9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pikitia (Picture)</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>10. kaiota</td>
</tr>
<tr>
<td>11. kaikiko</td>
</tr>
<tr>
<td>12. tīhaehae</td>
</tr>
</tbody>
</table>

Te Whakauru i Ngā Kupu Ngaro: Cloze (CLO) /6

He kai kiko te kuri. He rerekē ōna niho, kia pai ai te kinikini, okaoka, tīhaehae me te kurutē. Ėngari, kareka ōna niho ngaungau. He ngoe ake te mīti i te pātītī, a, ka taea e te kuri te horomi me te kore e āta ngaungau i te tuatahi.
## Appendix II: Comprehension Assessment Year 3 Text E

### Reanga 3E: Hangarua 3; pp. 1-16

<table>
<thead>
<tr>
<th>He kōrero pono kua kitea?</th>
<th>Wā tīmata.</th>
<th>Wā mutu:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ingoa</strong></td>
<td><strong>Kura</strong></td>
<td><strong>Kāhore</strong></td>
</tr>
<tr>
<td>Nama</td>
<td>Nama</td>
<td>/55</td>
</tr>
</tbody>
</table>

### 1. Tāruarua/ tārua(tia): Retell

Kōrerotia mai anō ou ake māramatanga mo tēnei kōrero pono.

#### Maharatanga: Recall (REC) /12

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pamutu anō (Re-read)</th>
<th>Pamutu tomu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakairo (Knowledge from other source)</th>
<th>Etahi atu (Other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. He aha ngā momo parahanga ka kōrere pono? Pera, kirihi, kēne konumohe, pounamu, karaehe</td>
<td>0 1 2 3 M E + P</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. Ha aha te mahi a ngā kaiwhewehewe? Taratia, kaiwhiu waiku utaha, whenewhe parahanga</td>
<td>0 1 2 3 M E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Ha aha te mahi a te tatua kawe? Hai parahanga ki ngā kaiwhewehewe</td>
<td>0 1 2 3 M E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Ma te pēhea ka uru katoa ai ngā kēne konumohe ki te paepe nui? Kohu&gt; mihani perehia&gt; pērē&gt; paepe nui</td>
<td>0 1 2 3 M E + P</td>
<td></td>
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</tbody>
</table>

#### Whakataunga: Inferencing (INF) /12

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pamutu anō (Re-read)</th>
<th>Pamutu tomu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakairo (Knowledge from other source)</th>
<th>Etahi atu (Other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. He aha ngā momo parahanga hea? Mai kāinga&gt; whare&gt; tauetoe&gt; haurahi&gt; kura&gt; iwi rāpiti</td>
<td>0 1 2 3 M E + P</td>
<td></td>
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<tr>
<td>7. He aha te take i kōrere pono? Kia hangarua&gt; kēne rāpiti ki te whena&gt; whare&gt; iwi i a Papatūnuku</td>
<td>0 1 2 3 M E</td>
<td></td>
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<tr>
<td>8. He aha kē i tonoa ai ngā kēne konumohe ki te tāwāhi? Honekau he wāhi Hangarua kēne ki Aotearoa&gt; kore e taea te mahi i komei.</td>
<td>0 1 2 3 M E</td>
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<tr>
<td>9. He aha ngā taonga ka puta i te hangaruatanga o te pepa? Pepe wharapaku&gt; pouaka&gt; tauetoe&gt; pepa hohi</td>
<td>0 1 2 3 M E + P</td>
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#### Whakamārama Kupu: Vocabulary Meanings (VOC) /9

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pamutu anō (Re-read)</th>
<th>Pamutu tomu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakairo (Knowledge from other source)</th>
<th>Etahi atu (Other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. parahanga otaata&gt; rāpiti&gt; kēne&gt; pepa</td>
<td>0 1 2 3 M E</td>
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<tr>
<td>11. kōrere ru whare parahanga&gt; iwi&gt; kōhinga&gt; parahanga&gt; mihani&gt; no te rāpiti</td>
<td>0 1 2 3 M E</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>12. kaipuke tama&gt; potu&gt; wakamua&gt; waiku whakahuterere</td>
<td>0 1 2 3 M E</td>
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</table>

#### Te Whakauru i Ngā Kupu Ngaro: Cloze (CLO) /6

Mā te taraka ngā parahanga e kawe ki te whare tohitū. Ka utaina ki roto i te kōrere. Mai i reira ka haria ki ngā kaiwehe. Ka takataa nga pepa, nga kirihiini, me nga kēne ko tō rātou ake pouaka. I te mutunga ka haria ngā kēne ki Ahitereiria, Ka hoki hangarua mai.
Can I Tell You Something?

Appendix III: Comprehension Assessment Year 4 Text A

Reanga 4A: Karengo; pp. 2-12  
He kōrero pono kua kitea?  
Ae  Kāhore  
Wā tīmata.  Wā mutu:

<table>
<thead>
<tr>
<th>Ingoa Nama</th>
<th>Kura Nama</th>
<th>Otinga</th>
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<td>/55</td>
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</tbody>
</table>

1. Tāruaru/ tārua(tia): Retell
Kōrero tia mai anō ou ake māramatanga mo tēnei kōrero pono.

**Maharatanga: Recall (REC)**

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pānui āno (Re-read)</th>
<th>Pānui tonu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakaaro (Knowledge from other source)</th>
<th>Ėtahi atu (Other)</th>
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</table>

2. Ka tupu te karengo i hea? Runga toka, roto moana  
0 1 2 3 M E + P

3. He aha i horoia ai te karengo ki te wai tai? Ka taka ngā kirikiri/kota/  
0 1 2 3 M E

4. Pēhea te roa o te tunu karengo? Rua haora  
0 1 2 3 M E

5. He aha tētahi kai he kā pāua? Para tuitui kā pāua/pāua rākatai/eti  
0 1 2 3 M E + P

**Whakataunga: Inferencing (INF)**

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pānui āno (Re-read)</th>
<th>Pānui tonu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakaaro (Knowledge from other source)</th>
<th>Ėtahi atu (Other)</th>
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</table>

6. Me pēhea i mōhio ai koe te āhua o te rā i kohikohia ai te whānau i te karengo?  
Whiti ana te rā/ marino te moana/ he hau moana  
0 1 2 3 M E + P

7. He aha i āta katohia ai na te huhuti i ngā rau o te karengo? Kia tupu tonu/kia kore e whatuwha haere  
0 1 2 3 M E

8. Ki a koe he rite te karengo ki te aha?  
Rimurimu/ hōkeke (fungus)  
0 1 2 3 M E

9. He aha ngā kaimoana kua rapua e koe?  
Pipi/kātipa/ kā tā/ka/ tā/ ātua  
0 1 2 3 M E + P

**Whakamārama Kupu: Vocabulary Meanings (VOC)**

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pānui āno (Re-read)</th>
<th>Pānui tonu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakaaro (Knowledge from other source)</th>
<th>Ėtahi atu (Other)</th>
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</tbody>
</table>

10. matomato tupu kaha, tini  
0 1 2 3 M E

11. ririki isti/nohinohi  
0 1 2 3 M E

12. pakapaka maroke/pakepake  
0 1 2 3 M E

**Te Whakauru i Ngā Kupu Ngaro: Cloze (CLO)**

<table>
<thead>
<tr>
<th>Pikitia (Picture)</th>
<th>Pānui āno (Re-read)</th>
<th>Pānui tonu (Read on)</th>
<th>Mōhiotanga (Prior knowledge)</th>
<th>Putanga whakaaro (Knowledge from other source)</th>
<th>Ėtahi atu (Other)</th>
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</table>

Ka tupu te karengo i ngā toka o te takutai. Me horoi ngā rau ki te wai tāia tāia takata aai ngā kirikiri. Ka tuku ngā rau ki tētahi paepae. Ka tunu ki roto o te omu. Whakamākūkūtia ki te wai wera. Whakaranua ki te pata kia hinuhinu.
Can I Tell You Something?

### Appendix IV: Comprehension Assessment Year 4 Text E

**Reanga 4E**: Te Hōrua Nui Rawa atu o te Ao; pp. 8-11, Ngā Kōrero 24

**He kōrero pono kua kītea?**

**Ae**

**Kāhore**

**Wā tīmata.**

**Wā mutu:**

<table>
<thead>
<tr>
<th>Ingoa</th>
<th>Kura Nama</th>
<th>Otinga</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>/55</td>
</tr>
</tbody>
</table>

#### 1. Tāruarua/ tārua(tia): Retell

Kōrerotia mai anō ou ake māramatanga mo tēnei kōrero pono.

<table>
<thead>
<tr>
<th>Maharatanga: Recall (REC) /12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pikitia (Picture)</td>
</tr>
<tr>
<td>2. Na te aha i keri ai te hōrua nui raw a o te ao? Kua whai koura</td>
</tr>
<tr>
<td>3. He aha ētahi o ngā āhua o te hōrua nui? He rahi/ hōhonu/ whānui/ 4km te roa/ 1.3km te whānui/ 650m te hōhonu</td>
</tr>
<tr>
<td>4. E hia ngā whare o Tamaki Makaurau ka uru ki te hōrua nui? Te katoa</td>
</tr>
<tr>
<td>5. Kōrerotia mai tētahi o nga mihīni nui e mahi ana i te hōrua. Pukere keri nui/ taraka putu nui/ taraka nohinohi</td>
</tr>
</tbody>
</table>

#### 2. Whakataunga: Inferencing (INF) /12

<table>
<thead>
<tr>
<th>Whakamārama Kupu: Vocabulary Meanings (VOC) /9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pikitia (Picture)</td>
</tr>
<tr>
<td>6. E pēhea ana te āhua o te whenua i Kalgoorlie? Marokē/ tae/kara/ kōhatu rerekē ki te whai koura</td>
</tr>
<tr>
<td>7. He aha te mihīni pai ki a koe? Pukere keri nui/ taraka putu</td>
</tr>
<tr>
<td>8. He aha ō whakaaro mo te keri whenua pērā i Kalgoorlie? Ngaro katoa te ao ki roto/ te pānga ki a Papatūānuku/ te tiaao</td>
</tr>
<tr>
<td>9. He aha ngā whakaaro o Papatūānuku i ēnei āhua mahi ki a iā?</td>
</tr>
</tbody>
</table>

#### 10. pūrere mihīni/ taraka/ mihīni keri | 0 1 2 3 M E |

#### 11. raua kohia, ūpako | 0 1 2 3 M E |

#### 12. kaitā nui/ whānui/ rahi | 0 1 2 3 M E |

### Te Whakauaru i Ngā Kupu Ngaro: Cloze (CLO) /6

Appendix V: Comprehension Assessment Scoring Criteria

<table>
<thead>
<tr>
<th>Nama:</th>
<th>Accuracy rate:</th>
<th>Otinga</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tārua (tia)/ tāruarua (repeat): Retell</td>
<td>/16</td>
<td></td>
</tr>
<tr>
<td><strong>Definition:</strong> Tārua is defined as the restatement of the major information-structure propositions about the text, assessed under Content and Sequencing. Te reo Maori does not have to be assessed in relation to its consistency with text.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content (CON)</th>
<th>0 = No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorrect response</td>
<td></td>
</tr>
<tr>
<td>Unconnected comments</td>
<td></td>
</tr>
<tr>
<td>1 = 1-2 main points mentioned</td>
<td></td>
</tr>
<tr>
<td>2 = more than 2, less than half of main points mentioned</td>
<td></td>
</tr>
<tr>
<td>3 = over half to all of main points mentioned</td>
<td></td>
</tr>
<tr>
<td>4 = almost all / all main points mentioned with a sense of the genre of the text as expository/informatio text.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sequencing (SEQ)</th>
<th>0 = No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = No sequencing of main points; disorganised presentation of ideas</td>
<td></td>
</tr>
<tr>
<td>2 = 2 or more but less than 1/2 points following logical text sequence</td>
<td></td>
</tr>
<tr>
<td>3 = over half of main points following logical text sequence</td>
<td></td>
</tr>
<tr>
<td>4 = Coherent, logical sequence of almost all / all main points presented as an integrated whole that summarises article.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Te Reo Maori Vocabulary (TRMV)</th>
<th>0 = No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = small no. of words, used repeatedly, May include a predominance of English vocabulary / utterances.</td>
<td></td>
</tr>
<tr>
<td>2 = A range of vocabulary. Minimal or relevant repetition of vocabulary. May include English words / phrases other than those in text that integrate into meaning of Māori utterances.</td>
<td></td>
</tr>
<tr>
<td>3 = A greater range of vocabulary than 2. Minimal use of English, except for English from text.</td>
<td></td>
</tr>
<tr>
<td>4 = A range of vocabulary which includes different types of lexical items e.g. nouns, adjectives, verbs, etc. Embedded lexical items e.g. nouns or pronouns. Almost no / no English except for English from text.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Te Reo Maori Grammar and Structure (TRMGS)</th>
<th>0 = No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Single-word or telegraphic utterances (3-4 word maximum).May include English syntax, syntactic language mixing.</td>
<td></td>
</tr>
<tr>
<td>2 = small no. of grammatical structures used repeatedly. Highly likely to contain grammatical errors. May include words that integrate into meaning of Māori utterances</td>
<td></td>
</tr>
<tr>
<td>3 = A range of grammatical structures used (at least 3). May include exploratory use (i.e. not all strictly grammatically correct) of personal possessives, negatives, passive constructions.</td>
<td></td>
</tr>
<tr>
<td>4 = Full, complex sentences. A range of linguistic structures used e.g. personal possessives, negatives, conjunctions, passives. Almost all are used correctly.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maharatanga/Recall (REC)</th>
<th>0 1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>/12 Definition:</strong> Information provided about the text.</td>
<td></td>
</tr>
<tr>
<td>0 = No response. Incorrect response</td>
<td></td>
</tr>
<tr>
<td>1 = Correct English response</td>
<td></td>
</tr>
<tr>
<td>2 = Correct Māori response</td>
<td></td>
</tr>
<tr>
<td>3 = Correct contextualised Māori response</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Köhikatanga/Whakataunga/ Hikaro Inferencing (INF)</th>
<th>0 1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>/12 Definition:</strong> Information implied or inferred but not directly in the text.</td>
<td></td>
</tr>
<tr>
<td>0 = No response. Irrelevant inference</td>
<td></td>
</tr>
<tr>
<td>1 = Relevant Māori and/or bilingual inference</td>
<td></td>
</tr>
<tr>
<td>2 = Relevant Māori and/or bilingual inference</td>
<td></td>
</tr>
<tr>
<td>3 = Contextualised Māori inference</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Whakamārama Kupu/ Vocabulary Meanings (VOC)</th>
<th>0 1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>/9 Definition:</strong> Selected vocabulary item meanings in context.</td>
<td></td>
</tr>
<tr>
<td>0 = No response. Incorrect meaning</td>
<td></td>
</tr>
<tr>
<td>1 = Correct English meaning</td>
<td></td>
</tr>
<tr>
<td>2 = Correct meaning (Māori)</td>
<td></td>
</tr>
<tr>
<td>3 = Correct contextualised Māori meaning</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Whakaurua / kuhungia ngā kupu e ngaro ana/ Cloze (CLO)</th>
<th>M E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>/6 Vocabulary choice must maintain the meaning, and grammatical structure of the sentence.</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix VI: Student Comprehension Assessment Guide Sheet

<table>
<thead>
<tr>
<th>Ngā Kōrero a te Kaiwhakamātutau</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ko tēnei kaupapa he rapu mōhiotanga mai i tēnei kōrero pono.</td>
</tr>
</tbody>
</table>

**Tuatahi**
- ka pānui koe.

**Tuarua**
- ka Kōrerotia e koe au ake māramatanga mo tēnei kōrero pono.
- ka pātaingia e a ngā pātai, mau e whakautu.

Ka hopua a ūaua kōrero i te mihīni hopu kōrero.

E mārama ana koe ki a ūaua mahi?
He pātai au?

Kua pānui kē koe i tēnei kōrero pono i mua atu? Pānui mai.

<table>
<thead>
<tr>
<th>Tāruarua (tia)/ Tārua/ Repeat/ Retell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kōrerotia mai anō au ake māramatanga mo tēnei kōrero pono.</td>
</tr>
</tbody>
</table>

**Maharatanga/ Recall (REC) – Questions 2 & 5 only plus Prompt**

Inaianei, ka huri ngā pātai ki a koe mo tēnei.

(After answer) Me pēhea koe i mōhio ai?

(Prompts) Me pēhea koe i mōhio, nā tōu pānuitanga, nā ngā pikitia, i roto rānei i a koe tēnei mōhiotanga, nā tahi atu rānei?

**Whakataunga/ Kōhikatanga/ Hīkaro/ Inferencing (INF) – Questions 6 & 9 only plus Prompt**

Inaianei, ka huri ngā pātai ki a koe mo tēnei.

(After answer) Me pēhea koe i mōhio ai?

(Prompts) Me pēhea koe i mōhio, nā tōu pānuitanga, nā ngā pikitia, i roto rānei i a koe tēnei mōhiotanga, nā tahi atu rānei?

**Whakamārama Kupu/ Vocabulary Meanings (VOC) – Question 11 only plus Prompt**

Whakamāramatia mai ēnei kupu.

(After answer) Me pēhea koe i mōhio ai?

(Prompts) Me pēhea koe i mōhio, nā tōu pānuitanga, nā ngā pikitia, i roto rānei i a koe tēnei mōhiotanga, nā tahi atu rānei?

**Whakauru/ Whakaurua/ Kuhuna ngā kupu e ngaro ana/ Cloze (CLO)**

Mea nei tahi kōrero mai i tēnei kōrero pono.

E ngaro ana ētahi kupu. Kuhuna/ tuhia ngā kupu e ngaro ana.

**He Kōrero Whakamutunga**

I panui pukapuka koe i tērā wiki?

He aha ngā pukapuka i pānuitia i te kura?

Ha aha ngā pukapuka i pānuitia i te Wharepukapuka?

He aha ngā pukapuka i pānuitia i te kaiinga?

He māmā, he uuaa rānei te rapu mōhiotanga mai i te kōrero pono?

Ki a koa, he māmā ake te whakautu pātai i roto i te reo Māori, te reo Pākehā rānei?

Kua mutu ūaua, kia ora mo ūaua tautoko i tēnei kaupapa.
## Appendix VII: Kaiako Interview/Discussion Guide Sheet

### Kaiako Discussion

Thank you for letting us video your classroom teaching and helping with extending our knowledge about our children’s literacy and language development and your teaching practice. I am going to ask about some of the observations we recorded. I have the video recording here so we can look at it during our discussion.

Have you brought a copy of your reading plan? May I have a copy please?

1. **May I ask you for some information about your years teaching?**
   - Years at Kura Kaupapa Māori?
   - Years teaching at this level?
   - Years speaking Māori (1st/2nd language)?

Now about **CHOICE OF READING MATERIAL**

At the start of the year we asked kaiako to choose non-fiction texts to use for the lessons we are going to observe.

2. **What guided you to choose this book/article?**
3. **How do you preview a book or story before you use it in the classroom for guided or shared reading?**
4. **What differences have you found choosing and previewing non-fiction texts compared to fiction texts?**

Do you have a teaching plan for the lessons I observed?

- Reading level?
- Interest level?
- Te reo Māori level?
- Others?

### INTRODUCING STORY/ARTICLE

I noticed that you introduced the story/article by...

5. **Why did you choose to do this?**
6. **Tell me about any other ways you have used to introduce story topics?**
7. **Why have you used these ways?**
8. **What differences have you found when you’re introducing non-fiction texts compared to fiction texts?**

### COMPREHENSION

I noticed that during the lesson you focused on the children’s comprehension of the story/article by...

9. **Why did you choose to do this?**
10. **What other ways do you use to help children gain meaning from text?**
11. **How do you help children to understand the context in a story or article?** (e.g. if we were reading a story we would know by the words used what the weather was like, what time of day it was, if it was present day, or past, fact or fiction).
12. **What differences have you found when you’re focussing on comprehension of non-fiction texts compared to fiction texts?**

### VOCABULARY FOCUS

During the lesson I noticed that you focussed on particular words by...

13. **Why did you do this?**
14. **What other ways might you focus on vocabulary?**
15. **How did you find out what words the children don’t know or didn’t understand?**
   - OR if they didn’t focus on any individual words,
16. **What ways have you used to focus on vocabulary?**
17. **How did you find out what words the children don’t know or didn’t understand?**

During the lesson you asked children about word...
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Why did you do this?</td>
<td>Meanings by...</td>
</tr>
<tr>
<td>19. What (other) ways might you ask children for clarification of word meanings?</td>
<td>During the lesson children asked for clarification of words by...</td>
</tr>
<tr>
<td>20. Why did you respond the way you did?</td>
<td>Meanings by...</td>
</tr>
<tr>
<td>21. What differences have you found when you’re focusing on vocabulary in non-fiction texts compared to fiction texts?</td>
<td>During the lesson children asked for clarification of words by...</td>
</tr>
<tr>
<td>FOLLOW-UP ACTIVITIES</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>22. What activities follow lessons like the ones we observed?</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>23. What is the purpose of these activities?</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>(If activities do not make links between lesson and activities e.g. story comprehension, story analysis, vocabulary learning and extension)</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>24. What are important links between the lesson and activities?</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>25. What differences have you found developing and choosing activities for non-fiction texts compared to fiction texts?</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>MONITORING AND ASSESSMENT</td>
<td>e.g. running records, comprehension questions, oral/ written retelling, cloze</td>
</tr>
<tr>
<td>26. How do you monitor and assess children’s reading comprehension in your class?</td>
<td>e.g. decoding, comprehension, recall, inferencing</td>
</tr>
<tr>
<td>27. What kinds of things do you focus on in your assessments?</td>
<td>e.g. orally, written work, while in class, while at play etc., others assess (kaumātua, kaiako, whānau)</td>
</tr>
<tr>
<td>28. How do you monitor and assess Māori language knowledge in your class?</td>
<td>e.g. tests for vocabulary knowledge, tests for understanding of spoken text, tests for understanding of written texts</td>
</tr>
<tr>
<td>29. What assessments are used?</td>
<td>e.g checking whether learning goals/ outcomes achieved, grouping children, identifying areas to focus on in teaching, developing learning activities</td>
</tr>
<tr>
<td>30. What Kinds of texts have you used to assess with? e.g. non-fiction texts, fiction texts</td>
<td>FINALLY,</td>
</tr>
<tr>
<td>31. May we look at examples of assessment records that you have for children?</td>
<td>33. Given what you know now, are there things that you would like to try, things that you would like to change, or things that you would do differently in your teaching?</td>
</tr>
<tr>
<td>32. Talk about the different ways you use to the assessment information you collect for your children?</td>
<td>34. Is there anyone in Kura or connected to Kura that you would like to work with to explore how you might do things differently?</td>
</tr>
<tr>
<td>FINALLY,</td>
<td>35. How did you find the experience of being videoed? Do you think it affected your teaching? How?</td>
</tr>
<tr>
<td>33. Given what you know now, are there things that you would like to try, things that you would like to change, or things that you would do differently in your teaching?</td>
<td>THANKS AGAIN FOR YOUR HELP AND TIME.</td>
</tr>
<tr>
<td>34. Is there anyone in Kura or connected to Kura that you would like to work with to explore how you might do things differently?</td>
<td>At the beginning of next year we will explore how things might be done differently. Would you like a copy of your tapes?</td>
</tr>
</tbody>
</table>


**Appendix VIII: Kaiako Exchanges Score Sheet**

**Kaiako Exchanges Score Sheet**

<table>
<thead>
<tr>
<th>Kura:</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
<th>Time 4 (Circle one)</th>
<th>Observation 1</th>
<th>Observation 2 (Circle one)</th>
</tr>
</thead>
</table>

**Exchanges**

An exchange is a set of interactions on the same topic involving comments, questions, directions, explanations or feedback. In a reading activity, exchanges also occur when participants in a reading activity add to the printed text. There can be different types of exchanges, including those described below. The descriptions below may be applied to a whole exchange OR interactions within an exchange. An exchange has a clear, identifiable focus e.g. on a word or a piece of text, or a particular idea (McNaughton, MacDonald, Farry & Barber, 2004).

K=Kaiako; C=Child; O=Other; child/ class/ group management; I=Initiation; Q=Question; V=Vocabulary; F=Feedback; P=Prediction; In=Inference; El=Elaboration; Ex=Extended talk; La=Language focused.

**Overall Book Rating** (McNaughton, MacDonald, Farry & Barber, 2004)

<table>
<thead>
<tr>
<th>Potential for child to link to topic</th>
<th>Text Difficulty</th>
<th>Language</th>
<th>Images</th>
<th>Overall Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lo 2 Med 3 Hi</td>
<td>1 Lo 2 Med 3 Hi</td>
<td>1 Lo 2 Med 3 Hi</td>
<td>1 Lo 2 Med 3 Hi</td>
<td>1 Lo 2 Med 3 Hi</td>
</tr>
</tbody>
</table>

**Overall Rating of Interactions** (McNaughton, MacDonald, Farry & Barber, 2004)

<table>
<thead>
<tr>
<th>Questions</th>
<th>Vocabulary</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lo 2 Med 3 Hi</td>
<td>1 Lo 2 Med 3 Hi</td>
<td>1 Lo 2 Med 3 Hi</td>
</tr>
</tbody>
</table>

Each rated for clarity and consistency. Rating for the degree to which questions connect with gaining meaning from text at word, phrase, sentence or whole text.

1- little clear relationship/connection with meaning from text at any level e.g. he aha? Kua panuitia?
2- some connection with text meaning ‘oo, nga kuri, ki te aha?
3- clear connection to text meaning e.g. he aha nga mahi o nga prikioti?

1 Lo – text/surface focus
Med – asking for or giving lexical item
Hi – exploring meaning at vocabulary level

Each instance rated for the degree to which instances contain information that clarifies, extends, elaborates or reworks a child’s response or initiation (judged in terms of leading to further turn, extending and elaborating child’s turn). Lo= non descriptive and does not provide the child with any information e.g. ka pai Med= contains some limited information e.g. ae, he kaaroro te manu Hi= elaborated feedback that clarifies and adds to child’s response. Includes teacher correction of child’s incorrect utterance; teacher response to child utterance with a question

**Observation No:** | **Date of Observation:**
--- | ---

<table>
<thead>
<tr>
<th>Nga Whakawhitihitanga Korero (Teacher Exchanges)</th>
<th>K</th>
<th>C</th>
<th>I</th>
<th>O</th>
<th>Q 1 2 3</th>
<th>V 1 2 3</th>
<th>F 1 2 3</th>
<th>P</th>
<th>In</th>
<th>El</th>
<th>Ex</th>
<th>La</th>
</tr>
</thead>
<tbody>
<tr>
<td>K= Kaiako</td>
<td>A= Akonga He tamaiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sub-total

<table>
<thead>
<tr>
<th>Nga Whakawhitihitanga Korero (Teacher Exchanges)</th>
<th>K</th>
<th>C</th>
<th>I</th>
<th>O</th>
<th>Q 1 2 3</th>
<th>V 1 2 3</th>
<th>F 1 2 3</th>
<th>P</th>
<th>In</th>
<th>El</th>
<th>Ex</th>
<th>La</th>
</tr>
</thead>
</table>
Glossary

A
Akiaki; kōrero akiaki
urge on; oral prompt(s)
Akonga
student(s)
Akomanga
classroom
Aotearoa
Land of the Long White Cloud (New Zealand)
Aromatawai Urunga a Kura (AKA)
The School Entry Assessment in te reo Māori

H
Hanga
make; build; fashion; work; fabric; practice; habit; thing; property
Hapū
Pregnant; sub-tribe
Harakeke
New Zealand flax (Phormium tenax)
He Iti Rearea
A visual or audio recording of the running record assessment conducted in te reo Māori
He Mātai Āta Titiro Mātātupu ki te Tutukitanga Pānui, Tuhi
The Māori Reconstruction of an Observation Survey of Early Literacy Development by Marie Clay
He Pūnaha mo te Whakaako me te Ako
The Assessment Tools for Teaching and Learning (asTTle)

I
Iwi
people; tribe

K
Kaiako
teacher
Kairangahau
researcher
Kaupapa Māori
‘Māori ways of thinking, Māori ways of doing’ (Smith, 1999, p.188)
Kete
woven basket
Kiekie
a climbing plant (Freycinetia banksii)
Kohikohinga
a collection; gathering together; recollections
Kōrero
tell, say; address; speak, talk; make peace, peacemaking; conversation
Kōrero akiaki
prompts; words of encouragement
Kura
school
Kura Kaupapa Māori
Māori language immersion school

M
(kōrero) mai
(speak) hither; speak to me
Māori
the indigenous people of New Zealand; the Māori language
Mārama
light not dark; clear, transparent; easy to understand; plain
Matua
male elder; father; male teacher
Matua tūpuna
grandfather
Miro
a tree (Podocarpus ferrugineus)
<table>
<thead>
<tr>
<th><strong>P</strong></th>
<th><strong>T</strong></th>
<th><strong>W</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pāpā</td>
<td>Tamariki</td>
<td>Whaea</td>
</tr>
<tr>
<td>Grandfather (writer’s whānau name for grandfather)</td>
<td>children</td>
<td>female elder; mother; female teacher</td>
</tr>
<tr>
<td>Pepeha</td>
<td>Tauira, akonga</td>
<td>Whakamārama(tia)</td>
</tr>
<tr>
<td>recitation signifying genealogical ties</td>
<td>Tāwhirimātea</td>
<td>Whakawhiti</td>
</tr>
<tr>
<td>Pīngao</td>
<td>prop up, support</td>
<td>convey across; exchange; crossover, reach the opposite side; return; present</td>
</tr>
<tr>
<td>a plant which grows near the seashore (Demoschoenus spiralis)</td>
<td>Te reo Māori</td>
<td>Whānau</td>
</tr>
<tr>
<td>Pukapuka</td>
<td>the Māori language</td>
<td>Wharekura</td>
</tr>
<tr>
<td>book</td>
<td>Whatu</td>
<td>Whatu</td>
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</tbody>
</table>