THE EFFECTS OF TWO ENGLISH READING COMPREHENSION INTERVENTION PROGRAMMES IN A HONG KONG INTERNATIONAL SCHOOL CONTEXT

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ABSTRACT

THE EFFECTS OF TWO ENGLISH READING COMPREHENSION

INTERVENTION PROGRAMMES IN A HONG KONG INTERNATIONAL

SCHOOL CONTEXT

by David Sorrell

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Abstract

Strong connections exist between readers' vocabulary knowledge and reading comprehension (Blachowicz & Fisher, 2004). Informational texts (Duke, 2009) have been shown to support students with fictional text comprehension (Soalt, 2005) leading to higher reading achievement (Kletzien & Dreher, 2004).

This thesis investigated the reading comprehension test score gains of international students after receiving two teaching interventions, one dedicated to vocabulary building and one to the reading of nonfiction texts. Reading comprehension gains were measured by the Assessment Tools for Teaching and Learning (asTTle) program and researcher-designed cloze fiction and nonfiction tests.

The research design was quasi-experimental, subject to school-based

limitations. The primary purpose was to determine whether either or both of the two interventions had any effect on reading comprehension. The intervention sessions were different in content. The fiction sessions used narrative content materials and focused on vocabulary items such as synonyms. The nonfiction sessions used non-narrative content materials and focused on the structure and layout of such texts.

Test results were analysed using SPSS (Version 17). One-way and two-way ANOVAs, T-tests and repeated measures analyses were conducted to ascertain differences between the two intervention groups. Effect sizes were calculated and reported according to Cohen's *d*.

In Study 1, larger asTTle test gains and effect sizes were found for Year 2 students receiving the nonfiction intervention first prior to the fiction group. When not receiving their intervention, groups acted as the control to compare intervention effects. Analyses found the nonfiction group continued to gain in their test scores when the control. It was hypothesized for the nonfiction group there were potentially more opportunities for impact on three of the four time periods, whereas for the fiction group, there was potentially only impact on assessment for the final time condition.

Study 2 explored if intervention order had any effect on test score gains. Intervention sessions were repeated in content with students from the next year's Year 2 cohort, but reversed in order. That is, the fiction group received their intervention first and the nonfiction group second. Higher gain scores for the fiction group were found suggesting both interventions impacted reading comprehension when implemented earlier.

Study 3 investigated whether older Year 6 students gained higher scores than the younger students. Like Study 2, the interventions were implemented fiction first and nonfiction second. The analyses found younger students had greater gain scores and effect sizes, however, it should be stressed this was not a straightforward process of comparing groups of different ages receiving the same intervention. A conclusion could be it was not age that facilitated learning, but having the easier content associated with age.

Each student completed a questionnaire to gain insight into key areas including problems experienced learning new English words, their coping strategies and the importance of being able to communicate in English.

The key findings of this research were:

• vocabulary uptake from explicit teaching happens, however, a longitudinal study is needed to determine if there is a clear impact on reading comprehension;

• exposure to nonfiction texts are beneficial to younger and older students; and

• intervention order for the younger students produced stronger effect sizes for earlier intervention;

• the value students attached towards English language proficiency and their future careers; and

• students positively evaluated the interventions suggesting reading comprehension instruction is a good idea.

Future research would include a comparative study to establish if intervention first for both interventions results in higher gain scores and effect

sizes for older students. Follow-up student and parent interviews would triangulate responses providing greater depth to the studies. Interviewing L2 English parents on reasons for sending their children to an EMI school could generate data addressing future academic/career aspiration issues.

The explicit teaching of vocabulary was found to benefit younger students particularly with their reading comprehension. As part of their daily reading programme, it is recommended primary schools include such input, particularly in the early years, where intervention seems to have most impact.

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INTERVENTION PROGRAMMES IN A HONG KONG INTERNATIONAL
SCHOOL CONTEXT

by

David Sorrell

A Thesis Submitted to

The Hong Kong Institute of Education

in Partial Fulfillment of the Requirement for

the Degree of Doctor of Education

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STATEMENT OF ORIGINALITY

I, David Sorrell, hereby declare that I am the sole author of the thesis and the material presented in this thesis is my original work except those indicated in the acknowledgement. I further declare that I have followed the Institute's policies and regulations on Academic Honesty, Copy Right and Plagiarism in writing the Thesis and no material in this thesis has been published or submitted for a degree in this or other universities.

Signature of student

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July 2013

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LIST OF ABBREVIATIONS

ACER - Australian Council for Educational Research

ANCOVA - Analysis of covariance

ANOVA - Analysis of variance

AoA - Age of onset of acquisition

APP - Assessing pupils' progress

asTTle - Assessment Tools for Teaching and Learning

AWM - acceptable word method

CAL - Chinese as an additional language

CMI - Chinese medium of instruction

DP - Diploma Programme

DSS - Direct Subsidy Scheme

EAL - English as an alternative language

EDB - Education Bureau (Hong Kong)

EFL - English as a foreign language

EMI - English medium of instruction

ESF - English Schools Foundation

ESP - English for specific purposes

EWM - exact word method

GMRT - Gates-MacGinitie Reading Test

HKCECES - Hong Kong Council of Early Childhood Education and

Services

IB - International Baccalaureate

IELP - Integrated English Language Programme

IM - immersion

IRT - Item response theory

IWB - interactive whiteboard

KS1 - Key Stage One

L1 - first language

L1A - first language acquisition

L2 - second language

L2A - second language acquisition

L3 - third language

MOI - medium of instruction

MYP - Middle Years Programme

PRC - People's Republic of China

PTA - Parent Teacher Association

PYP - Primary Years Programme

RL2 - "regular" second language learning programmes

SATS - Standard Assessment Tests

SBA - School Based Assessment

SPSS - Statistical Package for Social Sciences

SRA - Special Administrative Region

TAKS - Texas Assessment of Knowledge and Skills

TR - total random

UWL – University Word List

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Studies

Local government primary and secondary schools in Hong Kong are either Chinese medium of instruction (CMI) or English medium of instruction (EMI). In the early 1990s, approximately 90 per cent of primary schools were CMI (Cantonese-medium) and a similar number of secondary schools were EMI, but in reality, were actually teaching using English textbooks, but conversation was in Cantonese (Bolton, 2008). In 1997, policy changes were recommended to the local system including the reduction in number of secondary EMI schools which became CMI and in 1998, the addition of Mandarin (Putonghua) as a compulsory subject taught in government schools (Bolton, 2008). Many parents were concerned about these policy changes and chose to move their families or send their children to native English speaking countries to learn the language. On their return to Hong Kong, many chose to send their children for continuity to EMI international schools (Bray & Yamato, 2003).

International schools in Hong Kong are often an alternative form of private schooling for the local residents who can afford them and no longer international in the traditional sense of being for first and foremost for "ex-patriot children". This situation has come about as a result of Hong Kong's EMI policy where there are government English medium schools. International Schools are often seen as another, more successful route to English medium, therefore.

Policy has changed for schools within the English Schools Foundation (ESF) in recent decades, however, as in the 1970s, L1 Cantonese speaking children were barred from entering, unless parents could convince the school that local education system could not cater for their child's needs (Forse, 2010). The number of L1 Cantonese speaking students educated in EMI international schools has steadily risen in recent years (Forse, 2010). The reasons stated by parents in one study (Ng, 2012) for sending their child to an international school included inspirational, motivational, multinational and multicultural learning and not being taught in a rigid style, as local teaching was described.

Research conducted in Hong Kong has shown L1 Cantonese speakers strongly value being able to communicate in English for future academic and career prospects (Lai, 2009; Poon, 2010; Tung et al., 1997). Studies have also investigated issues related to the English proficiency of L1 Cantonese speakers

entering university and concerns for the advanced and technical vocabulary required. Such studies have been motivated by concerns that undergraduates often do not possess the academic writing and reading skills with the associated specialist lexico-grammar needed for specialised university courses (Evans & Morrison, 2011; Li & McGregor, 2010). Such concerns have been expressed by the government and with the business sector who have questioned the return on the billions of Hong Kong dollars invested in the education system, for example, in sending local L1 Cantonese teachers to native English speaking countries to improve their English proficiency and hence, teach with improved and more accurate grammar and vocabulary. Inadequate vocabulary levels in English, therefore, have been seen as a concern in L1 Cantonese speaking students in Hong Kong. Research with L1 and L2 English students has shown connections exist between vocabulary knowledge and reading comprehension, whilst also demonstrating the positive impact of intervention programmes and the explicit teaching of vocabulary. The majority of research in this area has been undertaken in the United States, however, and not in a Hong Kong International school context. In recent years, other research has investigated the lack of exposure students have with nonfiction texts worldwide and how primary schools, in particular, have not adequately prepared students for their secondary,

college and university education.

This research was undertaken with L1 and second language (L2) English speaking students. The studies were conducted in Hong Kong where there are three official languages: Cantonese; English and Mandarin (Putonghua) (Li, 2000). Ethnic Chinese equate to 93.6% of the total population of Hong Kong and Cantonese is spoken by 89.5% of them (Lai, 2013) as their first language (L1). Genesee (2004, p 547) has commented, "In many communities in the world, competence in two, or more, languages is an issue of considerable personal, socio-cultural, economic, and political significance".

1.2 Theoretical and conceptual frameworks

The vocabulary acquisition and reading comprehension studies of Nell Duke (Duke, 2003; 2004; 2009), Paul Nation (Nation, 2004; 2006; 2008) and Charles Perfetti (Perfetti, 1985; 1997) underpinned the conceptual framework of the thesis.

Duke has studied the minimal exposure students in primary and secondary schools have to nonfiction content material. In one study (Duke, 2003), she found that the experimental group, who were exposed to more informational texts, were better writers of informational text than the children in the control group. Duke also concluded non-narrative texts in the early grades

may help mitigate the difficulties many students encounter with these texts later in their schooling (Caswell & Duke, 1998).

Nation has studied vocabulary and issues such as how it is taught and learnt by first and second language learners. Vocabulary has been described by Nation as having four levels: high frequency; academic; low frequency and technical (Nation, 2008; Nation & Gu, 2007, p 2). The researcher has also investigated the acquisition rates of first and language speakers of English. With colleagues (Goulden, Nation & Read, 1990) he estimated that a well-educated adult native English speaker has a vocabulary of 17,000 base words with an acquisition rate of two to three words per day. Further work on vocabulary levels included the number of word families a speaker needs to know. Nation claimed in a later study (Nation, 2006) that for unassisted comprehension, 98% of a text is required to be known by the reader, with an 8,000-9,000 word-family vocabulary for written text comprehension and a vocabulary of 6,000-7,000 words for spoken texts.

Perfetti has concluded correlations exist between vocabulary knowledge and reading comprehension and argued children less skilled in comprehending were also not so good in their word reading (Perfetti & Hart, 2001). He commented, "poor comprehension was typically the result of low quality verbal

processing manifested in word decoding, memory for recently processed text, or both" (Perfetti, 1997, p 342) and that "Lexical skills allow comprehension, comprehension allows reading practice, reading practice strengthens lexical skills, etc" (Perfetti & Hart, 2001, p 189).

Based on these studies, the conceptual framework for this research was formulated and is presented in Figure 1. The two reading interventions implemented in the quasi-experimental studies were designed following a review of the work of Duke, Nation and Perfetti. The aspects of Duke's work utilised in the conceptual framework were the use of nonfiction/informational texts in reading comprehension programmes. The features of Nation's work incorporated were the explicit teaching of vocabulary and particularly, the knowledge required by first and second language learners of word families. The correlations advocated by Perfetti between vocabulary knowledge and reading comprehension also provided a conceptual starting point.

The framework consists of the location of the research in a Hong Kong school within the international school system. Different perspectives on reading comprehension and the use of intervention programmes (Duff, Fieldsend, Bowyer-Crane, Hulme, Smith, Gibbs & Snowling, 2008) were studied. Previous research investigating age of students (DeKeyser, 2013), gender (Francis, Luk-Fong & Skelton, 2012) and intervention order (Stephens, 2010) that identified potential differences were also reviewed.
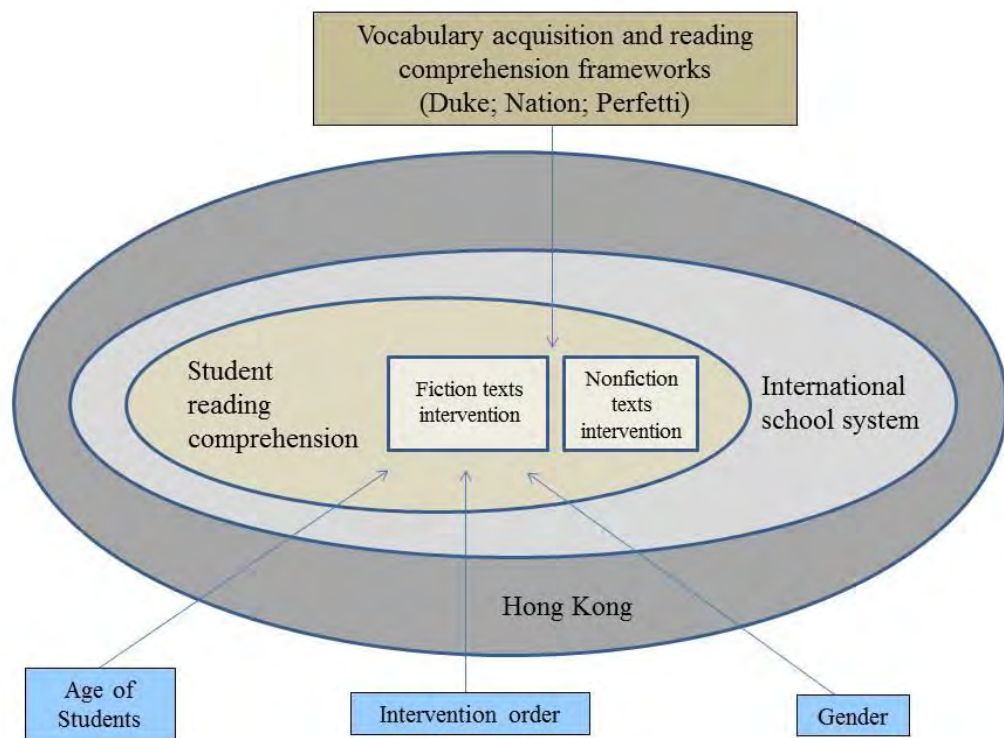
Figure 1. Thesis conceptual framework.

1.3 Research Questions

The formulation of the conceptual framework led to the formulation and posing of the following research questions. The first four relate to the three quasi-experimental studies:

1.   Do the interventions of teaching vocabulary and comprehension using either nonfiction or fiction texts improve the reading comprehension of six and seven year old students in Hong Kong?

2.   Does the order in which an intervention is implemented have any effect on reading comprehension?

3.   Do ten and eleven year old students (Year 6) improve more in their reading comprehension than six and seven year old students (Year 2)?

4.   To what extent do the independent variables of gender, first language and intervention order have an effect on reading comprehension score gains?

The rationale for administering the questionnaire to the students was to gain greater depth of knowledge of the following: vocabulary acquisition and learner strategies (Nation, 1990); motivation to learn English (Dörnyei, 2001); enjoyment of reading in English; book genre preferences and to ascertain their views on being able to communicate in English. The six research questions that

underpinned the questionnaire were as follows:

1.   Are there similarities between year groups with regard to their enjoyment in reading in English?

2.   Are there similarities between year groups with regard to book genre enjoyed the most?

3.   Are there differences in the experiences of English learners when learning new vocabulary?

4.   Are there similarities in the vocabulary learning strategies used between the year groups?

5.   Are there any similarities between year groups on the importance of learning English?

6.   What are the student opinions of the intervention sessions?

1.4 Methodology

Based on the conceptual framework, research was conducted in an international school in Hong Kong to investigate the use of fiction and nonfiction texts on student reading comprehension. The methodology employed three quasi-experimental studies and a questionnaire. Primary aged students were selected from Year 2 and Year 6. The total number of students in Studies 1 and 2 were 36 and in Study 3 were 21. The fiction intervention was dedicated to

vocabulary building using narrative texts and appropriate lexis including synonyms, antonyms and affixes. The nonfiction intervention employed non-narrative texts focusing on the content and layout, concept maps, and graphic organizers. Students were pre- and post tested to ascertain whether the interventions had an effect on reading comprehension. Consideration was given to the independent variables of gender and age differences. A follow-up questionnaire was administered to obtain information regarding student motivation and enjoyment of reading in English.

1.5 The significance of the studies

This research was undertaken to ascertain the effects of two interventions (fiction and nonfiction) on the reading comprehension of L1 and L2 English speaking students. The studies were conducted with two contrasting year groups in order for theories of critical age in learning language as an L1 or L2 to be explored. The students in these studies were from six L1 language backgrounds and in the data analyses, L1 and possible effects on reading comprehension were also considered. Through the use of a student questionnaire, opinions on learning English, difficulties encountered in learning new vocabulary and coping strategies students used were also investigated.

A search of the literature explored a range of studies conducted in recent

decades on vocabulary acquisition and the use of nonfiction texts in schools. There are bodies of literature that investigated the impact of intervention programmes on reading comprehension mainly in the United States, but there appears to be a lack of empirical research conducted in Hong Kong. In particular, studies investigating the impact of intervention programmes on the reading comprehension of L1 and L2 English students in international school settings.

In summary, the significance of this research is as follows:

1.   A mini-curriculum designed to expose primary-aged students to nonfiction texts and build their vocabulary; testing efficacy using quasi-experimental intervention studies, incorporating two different classes of outcome measure;

2.   Contributing to the practice of reading comprehension teaching in international education in Hong Kong. The reading comprehension programme seems to have some power to help younger students in their reading of English; and

3.   The study and findings provide original and substantive contributions to the practice of teaching reading.

1.6 The structure of the thesis

The thesis is divided into five chapters. The first chapter is the introduction and purpose of the reported studies; the research questions and the significance of the studies.

The second chapter is the literature review which searched published studies of international education and schools with a focus on the Hong Kong context. Research that has investigated medium of instruction (MOI) concerns in Hong Kong and the English proficiency of L1 undergraduates are included. The review searched reading comprehension and studies conducted on vocabulary knowledge, acquisition and intervention programmes, as well as the use of nonfiction texts. A search of critical periods in language acquisition was also conducted.

The third chapter is methodology. The study design is discussed in relation to the rationale for using a quasi-experimental approach in the quantitative studies. The research questions, focus school environment, recruitment of students with associated ethical considerations, interventions and testing instrument are discussed, as well as the student questionnaire in terms of questions asked and how it was administered.

The fourth chapter presents the test results and data analyses in relation

to the research questions.

The fifth chapter contains the discussion and conclusions of the studies. Limitations of the studies are discussed, as well as future research considerations based on the conclusions and limitations explored.

The appendices include all of the reading comprehension tests and a full copy of the questionnaire administered to the students, as well as letters sent out to parents. Reading curriculum achievement objectives of the testing administered, an example of a semantic map used in the intervention sessions and full lists of comments made by the students in response to three of the questionnaire questions are also found.

The next chapter, Chapter Two, presents the literature review.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review addresses issues that formulated the conceptual framework. The first section has a focus on Hong Kong, the context for this research and an underpinning theme of all the research questions. Studies conducted in recent years with regard to the reported concerns of L1 Cantonese speaking parents and the MOI of local government schools. The review also addresses concerns of Hong Kong businesses and universities with regard to the reported insufficient English vocabulary knowledge and language proficiency of L1 Cantonese speaking students.

The second section addresses the focus school environment, international schools and education. Initially, international schools and education worldwide are reviewed, subsequently narrowing down to Hong Kong and the reasons, for example, why L1 Cantonese (and other L1 non-English background) parents choose to send their children to international schools, as opposed to local government schools.

The third section reviews studies conducted on reading comprehension early intervention programmes, the explicit teaching of vocabulary and the use of fiction and nonfiction texts in schools. The two interventions (nonfiction and fiction) used in this thesis and research that has been conducted in these areas are reviewed. The final section focuses on the student cohort for this thesis and critical age theories studies undertaken on language acquisition as an L1 or L2.

2.2 The context for the studies

This section focuses on the context for the research, Hong Kong in which the education system primarily comprises of local government and international schools. MOI issues in local government schools, parental concerns and their decision to send their offspring to L2 MOI international schools are considered. So too are concerns that have been raised with regard to the English proficiency of L2 English students in Hong Kong and the importance L1 Cantonese speaking people attach to being able to communicate in the language. Finally in this section, research conducted on international schools and education is initially discussed worldwide, with a subsequent focus on the Hong Kong composition in which this thesis was undertaken.

2.2.1 Hong Kong Education. Primary and secondary schools in Hong Kong fall into the categories of: local government (primary & secondary); aided

(primary & secondary); Direct Subsidy Scheme (DSS) (secondary); private secondary (day/evening); kindergartens; kindergarten-cum-child care centres; others (day/evening such as learning and tutorial centres) and international schools (primary & secondary), which are either private or part of the English Schools Foundation (ESF) (EDB, 2013). Hong Kong is home to a number of universities and higher education institutions that are either EMI or CMI that local and international students attend. Maclean and Lai (2012) have commented that 20 percent of higher education students are from overseas.

Local government primary and secondary schools are either CMI or EMI with Mandarin taught as an additional language. Hong Kong has witnessed a number of changes in educational MOI policy in recent years. The majority of international schools are EMI teaching Mandarin as an additional language. Up until recent years, ESF and private international schools had adopted the curriculum of England and Wales, however, there has been a move towards the implementation of the International Baccalaureate's (IB) Primary Years Programme (PYP), Middle Years Programme (MYP) and Diploma Programme (DP) (IB, 2013).

Issues relating to the MOI of Hong Kong local government schools and the perceived underachievement of L1 Cantonese speaking undergraduates are

now discussed.

2.2.2 Local government education: medium of instruction (MOI) issues. In the mid-1950s, the number of students enrolled in Anglo-Chinese (later renamed English Medium) secondary schools in Hong Kong outnumbered those attending Chinese middle schools (Tung, Lam & Tsang, 1997). Several decades later, the Education Commission in Hong Kong reported and recommended in 1990 that Chinese should become the medium of instruction in government and government-subsidized secondary schools (Tsui, 2008). Previous to the handover in mid-1997 of Hong Kong back to the People's Republic of China (PRC), approximately 90% of local primary schools were CMI (that is Cantonese) (Bacon-Shone & Bolton, 2008; Kirkpatrick, 2007). In direct comparison, 94% of secondary school students were studying in EMI and 6% in CMI schools (Tsui, 2008). In the 1990s, secondary school principals were allowed to choose whether to be CMI or EMI. The EMI schools were, in reality, teaching in Cantonese (or a mixed code of Cantonese and English) (Kirkpatrick, 2007; Morris & Adamson, 2010; Poon, 2009); students were translating textbooks from English into Cantonese with examinations in English (Kirkpatrick, 2007; Morris & Adamson, 2010). A few months before the handover in 1997, the government announced that only 114 out of just over

400 EMI secondary schools would be able to continue to use English as their medium of instruction, which met with dissatisfaction from Hong Kong parents (Li, 2008; Morris & Adamson, 2010; Poon, 2010; Tsui, 2008). Poon (2010) reported statistics obtained from the 2008 assessment of approximately 200,000 Hong Kong students in Primary 3, Primary 6 and Secondary 3 year groups in English, Chinese and Mathematics. The assessment found that English subject scores were the lowest among the three subjects and that more than 30% of the Secondary 3 students failed to achieve basic competency in the subject. Poon (2010) cited the results of another study (Ming Pao, 2008, November 1) and found that 7.8% of the Secondary 3 students had actually deteriorated in their English basic competency level since they were in Primary 6. Poon (2010, p 38) claimed such statistics "clearly indicated a gradually increasing decline in English standards after the handover, though this was compared to pre-handover levels is somewhat mysterious." Poon (2010) commented that senior secondary students studying in CMI schools had much lower motivation and self-esteem for learning English than their counterparts studying in EMI schools. In addition, Poon (2010, p 40) claimed "the chances of Chinese-medium school students entering university were only half that of English-medium school students".

Since the handover in 1997, billions of Hong Kong dollars have been allocated by the government to promote English, Cantonese and Putonghua in primary and secondary education (Poon, 2010). In order to try and address the declining English standards of students, teachers were immersed in degree and diploma programmes. However, despite such initiatives, only between 40 and 50% of candidates achieved the benchmark set for speaking and writing in English (Poon, 2010). Statistics have indicated that there has been an increase from 1.12% in 1961 to 2.80% in 2006 in English being used as a primary language and as an additional language, from 29.4% in 1991 to 41.9% in 2006 (Poon, 2010). Poon (2010, p 51) claimed that "people below the age of 40 brought up in Hong Kong should all be able to speak English with some degree of proficiency". English is considered in Hong Kong society to be an important language in which to be able to communicate. This is a view particularly held by the business sector and local L1 Cantonese speaking parents. Parents have called for more EMI schools in Hong Kong especially since numbers were reduced in September 2008 with the introduction of the CMI policy (Poon, 2010).

MOI concerns have been investigated in a number of studies (Evans & Morrison, 2011; Lin & Morrison, 2010). One study (Tung, Lam & Tsang, 1997)

asked more than 5,000 first-year secondary school students, over 4,600 parents and 700 teachers from 24 Hong Kong secondary schools for their views of MOI. The results of their questionnaire revealed that the majority of students and their parents believed EMI schools "bring about a better standard of English, which is important for the purpose of careers advancement" (Tung et al. 1997, p 456). Students and their parents were also of the belief that studying all subjects in Chinese would be of detriment to the students' English standards, whereas teachers were neutral on this issue. Teachers were found to be in favour of Chinese being the medium of instruction in junior grades and English in secondary grades and against the idea of code-mixing; parents echoed their opinions.

The English language proficiency of students studying in CMI schools has raised concerns when compared to those studying in EMI schools. Questions have been raised as to whether CMI students are at a disadvantage when entering EMI universities in Hong Kong. It has been argued that for high academic achievement in tertiary education, a near-native English vocabulary size is a prerequisite, particularly as university-level courses use textbooks designed for English L1 speakers (Li & MacGregor, 2010). Using two vocabulary tests with first-year students, Lin and Morrison (2011) examined

their passive and active vocabularies to ascertain whether the change in MOI

policy in Hong Kong had any effect. The authors claimed that 17.3% of tested

students did not have a satisfactory receptive academic vocabulary and that this

could hinder them in their learning at EMI universities. Lin and MacGregor

(2010, p 259) also claimed that, "This reduction in the proportion of students

judged to have a satisfactory receptive academic vocabulary suggests that the

change of policy in the MOI in the secondary schools has had a significant

impact on the size of the academic vocabulary of Hong Kong tertiary students.

This may be due in part to the fact that the change of language in textbooks

(from English to Chinese) dramatically decreased most students' exposure to

English vocabulary, and this could, in turn, have led to a reduction in the ability

of these students to read university level texts". Lin and Morrison (2010)

proposed that EMI schools provide more opportunities for students to be

exposed to English academic vocabulary enabling them to produce better

quality academic work in their tertiary education and that urgent attention was

required for CMI students who are not in the same situation.

2.2.3 English language proficiency and vocabulary levels of L1

Chinese students in Hong Kong. The Integrated English Language

Programme (IELP) was initially developed in Singapore and Brunei. Following

a review in 1995 by the then Education Commission in Hong Kong, the programme was developed and implemented in Hong Kong between January 2000 and July 2003, with the chief aim of improving English language learning through innovative teaching techniques to average ability Primary 1-3 children in Hong Kong (Ng & Sullivan, 2008). Some of the teaching techniques used for the IELP were: shared reading using the Shared Book Approach; the Writing Process (including decoding skills acquisition, shared language experiences, class shared writing, small mixed-ability group writing, individual writing) and learning centres. A total of 16 language achievement tests, including the Hong Kong Attainment Test (Primary English), were administered to two equal-sized groups, totalling 216 Primary 1 children from 12 of the programme's participating schools (six project and six non-project). One of the non-project schools, however, refused to submit its results, so analyses were conducted with six project and five non-project schools instead. The average age of the children was 6.5 years at the start of the project. The research design employed the use of a pre-test post-test experimental control group design, comparing the project and non-project schools. The non-project school therefore acted as the control. Baseline data was obtained in Test Stage 1, with subsequent testing administered twice a year in the middle and end of the school year over the

three years (Test Stages 2-7).

At Stage 1 of the testing, analyses of test scores showed the project and control groups to be comparable with similar scores. There were mean score gains for both groups, indicating progress over the three years of the project. There were also statistically significant differences between the two groups at the end of the three years. For example, in the chosen writing vocabulary test, the project group had a mean score of 61.3 compared to 47.7 for the control group; in the chosen word knowledge test, the mean scores were 61.5 compared to 47.4 for the project and control groups respectively and when reading unfamiliar texts with no help, the mean scores were 75.0 and 59.9 for the project and control groups respectively. The project group scores were considered significant at $p < 0.05$ level. The project children were reported to be: better at reading both isolated words and continuous texts; had a better grasp of:

- the oral aspects of language (word knowledge, listening comprehension, language of instruction);

- reading comprehension; had a better grasp of print concepts (e.g. punctuation);

- letter-sound relationships knowledge (dictation); and

- coping strategies for classroom texts (familiar texts).

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They also scored higher in external examinations (Hong Kong Attainment Test in primary English) (Ng & Sullivan, 2008, pp. 78-79). In their concluding remarks Ng and Sullivan (2008) stated that a need for change was identified and although high-ranking officials in Hong Kong have shared the views of the IELP implementers, no definite plans to incorporate ILP into a system-wide dissemination plan have evolved. The authors added that the only alternative would be for the Hong Kong Council of Early Childhood Education And Services (HKCECES) to continue implementing the IELP into schools on a voluntary basis. In conclusion, Ng and Sullivan (2008, p 84) wrote, "It has been difficult to get Hong Kong schools to budge from their traditional reliance on a curriculum overly dependent on rote learning and textbooks. IELP seems to be changing school and teacher attitudes in a relatively short time. To capitalize on the efforts and expenditures invested so far, it is hoped that some way can be found to offer IELP to Hong Kong schools as a viable alternative in educational reform".

The English sight vocabulary in Grade 2 Cantonese-speaking children (namely Hong Kong children who had learned English phonics; Hong Kong children who had not received Pinyin or phonics prior instruction and children from Guangzhou who were familiar with Pinyin) was researched by Yeung and

Cheung (Yeung & Cheung, 2005). The experimental design included two vocabulary learning sessions in which the participants were required to learn twelve new English words (six for each of two methods). There was one test session to measure English sight vocabulary learning efficiency. Two methods to teach the items were used. The silent method involved participants observing as each item was visually displayed on a flash card. Afterwards, the experimenter orally explained each item. In the spoken method, the participants also observed and listened to each item, but were asked to repeat aloud the item after the experimenter read it to them. Tong and McBride-Chang (2010) examined the associations of Chinese visual-orthographic skills, phonological and morphological awareness to Chinese and English word reading of second and fifth English L2 learners. Chinese contrasts with English in terms of phonological awareness, as well as orthographic and morphological aspects (characters in contrast to linear alphabetic writing) (Tong & McBride-Chang, 2010).

In a recent study, Lo and Murphy (2010) investigated vocabulary knowledge and growth, and the impact of two frequently implemented bilingual education programmes, namely immersion (IM) and "regular" second language learning programmes (RL2) in Hong Kong. In another study (Lai, 2012)

surveyed looked at three different types of learners' vocabulary knowledge, namely passive, controlled active and free active (Laufer & Paribakht, 1998) at different frequency levels (the first 2000, the third thousand, the UWL and the fifth thousand for passive and controlled active vocabulary and the first 1000, second 1000, UWL and "others" for free active vocabulary). These frequency levels were chosen to allow for comparison across the studies and between two groups of Grade 9 students. Lo and Murphy (2010, p 220) also included two groups of Grade 7 students in order to: 1) examine vocabulary knowledge growth over three years in their respective language-learning programme and 2) to mitigate against a potential confounding variable, namely potential differences in student vocabulary knowledge, as they began the programme. The researchers suggested that if Grade 9 students in IM and RL2 did not start their secondary education with the same level of vocabulary knowledge, any differences between the two groups could be due to another factor and therefore, might not be attributable to the language programme. In order to address this possibility, the researchers also chose to analyse the vocabulary knowledge of the Grade 7 students from the same schools, as the assumption was made that the performance of the Grade 7 students could reasonably reflect the vocabulary knowledge of the Grade 9 students in the same school, two years previous to

the study. The results of Lo and Murphy's (2010) study were that Grade 7 students in IM obtained significantly higher total scores in both versions of the Vocabulary Levels Tests. It was only on the low-frequency vocabulary levels in which the two groups were similar. Grade 7 students in IM knew significantly more words for both passive and controlled active vocabulary. Grade 9 IM students achieved significantly higher mean scores for both passive and controlled active vocabulary than the RL2 students at all frequency levels. The Grade 9 IM students knew more words than the RL2 students for both passive and controlled active vocabulary even after using ANCOVA tests to adjust for the differences at Grade 7. For active vocabulary knowledge, both Grade 7 and 9 IM students included a significantly larger proportion of words beyond the 2000-word level. Students in IM consistently demonstrated superior vocabulary knowledge. The advantage for IM students was observed at Grade 7 on some measures suggesting that even after a relatively modest time period in IM, these pupils were able to demonstrate advanced vocabulary knowledge on certain measures relative to their RL2 counterparts. Lo and Murphy (2010) concluded that their results indicated IM students outperformed their RL2 peers due to a more rapid improvement in their L2 vocabulary knowledge. The authors commented that in a different context of Hong Kong and with different

languages involved (L1 Chinese learning English); their study reaffirmed the effectiveness of IM to facilitate L2.

Li, McBride-Chang, Wong and Shu (2012) researched students and longitudinal predictors of their spelling and reading comprehension across two years. The participants were 164 children which due to some dropout reduced to 142. They were aged 8 at the start of the study and 10 when retested. The researchers found when L1 reading comprehension was controlled L1 word reading was negatively associated with L2 reading comprehension. Li et al. (2012, p 13) believed this to be an unexpected result and that as this occurred in both languages, "this association may be relatively robust and was likely due to the very high correlation between word reading and reading comprehension across languages". Correlations were found to be .60 between word reading and reading comprehension in Chinese and .73 in English. The researchers also concluded from their study that Chinese vocabulary knowledge was a longitudinal predictor of English reading comprehension, but not Chinese reading comprehension. This they also considered to be an unexpected result. Demographically, strong associations were found to exist between the fathers' income levels and mothers' education levels and the reading comprehension (and all other measures of English skill) of their child. In addition, the authors

reported that girls outperformed boys in their Chinese reading comprehension, but not in English. Li et al. (2012) argued that their study found practical implications for Chinese students learning English as an L2. One of them was that reading comprehension in English may be facilitated by Chinese reading comprehension in L1 Chinese learners. The authors commented, "an emphasis on higher level reading comprehension strategies, such as vocabulary knowledge and context within a passage, may be transferable from one orthography to the next. In addition, however, for L2 English reading comprehension to be maximized, Chinese students should additionally have adequate knowledge of both English vocabulary and word recognition. Thus, both "language-general higher order skills and English-specific word-level skills are essential for fluent reading comprehension in Chinese children" (Li et al., 2012, p 13).

In another study (Lai, 2012) surveyed 1,045 local secondary school students on their attitudes towards Cantonese, English and Mandarin. The study was repeated using the same questionnaire statements in 2001 with 1,140 secondary school students. The results were subsequently compared. With regard to the languages spoken at home by the students, 92.3% spoke Cantonese in both surveys; 1.2% spoke Putonghua (Mandarin) in 2001

decreasing to 0.9% in 2009; 0.5% spoke English at home in 2001 increasing to 1.1% in 2009 with 3.5% speaking other languages in 2001 compared to 5.4% in 2009. In her 2001 survey, there were a smaller number of students in CMI schools (53.8%) compared to 2009 when the number increased to 74.5%. In comparison, there were a larger number of students in EMI schools (46.2%) in the 2001 survey, decreasing to 25.5% when the second survey was conducted in 2009. The results of the 2009 survey revealed the students had a stronger affection towards Cantonese, with English in second ranking and Putonghua third. They believed that as a Hongkonger, they should be able to speak fluent Cantonese. The effect size between the 2001 and 2009 survey results was .77, considered to be moderate to large. Being fluent in English was also seen of importance as a Hongkonger. Again, the effect size between the two surveys was considered to be moderate to large at .82. With regard to Putonghua, the students believed Hongkongers should be able to speak the language fluently. The effect size between the results of the 2001 and 2009 surveys was moderate to large at 1.09. The questionnaire statement that people who speak English tend to be well-educated, intelligent and well-off showed was agreed by the students (effect size of .40; moderate to large). English compared to Cantonese was seen as important in getting better career opportunities in the 21st century

and considered to be more highly regarded in Hong Kong society with slightly

larger effect sizes. The survey also reported that the students considered the

standard of English needed to be enhanced of Hong Kong people in order for

Hong Kong's competitive edge to be increased.

Hong Kong undergraduates have been the subject of numerous studies

researching levels of vocabulary and English proficiency (Cobb & Horst, 1999;

Evans & Morrison, 2011; Fan, 2001; 2003; Gan, 2009; Li & McGregor, 2010;

Lin & Morrison, 2010; Stone, Wong & Lo, 2000; Tsang & Chen, 2005; Wu,

2008). Despite the government stressing the importance of students being

bilingual and be able to communicate in Chinese and English for Hong Kong's

future, schools and universities graduate large numbers of students with low

levels of English proficiency (Johnson, 1998). One study (Stone et al., 2000)

tested 146 undergraduates in Hong Kong comparing their scores on the ACER

Word Knowledge Test (verbal skills and reasoning ability) by t-test to

Australian Year 11 students. The analyses found the Hong Kong student mean

score to be significantly lower than for all the Australian students, equating to

the 14th percentile for all Australian Year 11 students. Stone et al. (2000)

commented this could signify Hong Kong students would likely find

comprehending English texts to be arduous. When the students were given a

nonverbal test (Raven's Standard Progressive Matrices), the analysis of their scores showed the Hong Kong students performed "extremely well" on the matrices, with their scores equating to the 94th percentile for the Australian Year 11 students. Stone et al. (2000, p 334) concluded that although the results of their study were tentative, for the Hong Kong students "the problem is not the lack of student ability, but one which is likely to be centred on an ineffective education system".

Fan's (2001) research questions focused on whether newly admitted university students require help for their studies with general and academic vocabulary; if knowledge of academic vocabulary is related to vocabulary knowledge at other word levels; student vocabulary needs at different language proficiency levels and whether or not there are any differences between the vocabulary knowledge of students from English medium of instruction (EMI) and Chinese medium of instruction (CMI) schools. Fan (2001) concluded the results of the Word Levels Test (long version) on passive vocabulary knowledge (Paul Nation) showed that in general, for their studies, students have sufficient academic vocabulary. The author, however, reminded the reader that most of the participating students attended EMI schools and would therefore have had many opportunities to use academic vocabulary. The author also contended that

on all five word levels (2,000; 3,000; UWL (University Word List); 5,000 and 10,000), the EMI students' performance was superior to the CMI students. Fan commented that this "relationship between teaching medium and vocabulary knowledge was too striking to be ignored" (Fan, 2001, pp 82-83). She added that for CMI students only knew 67% knowledge of the words on the UWL, compared to the minimum 83% required. Fan (2001) concluded that although students benefit from mother tongue education, for tertiary education, CMI students could be disadvantaged if intending to study at university level if they are less proficient in English vocabulary. She also concluded that in the acquisition of L2 proficiency, vocabulary knowledge has an essential role to play, due to the strong and positive relationship between language proficiency and vocabulary test scores.

In a later study, Fan (2003) investigated English vocabulary learning by L1 Cantonese speakers in Hong Kong. The subjects were undergraduates, who were asked to complete a questionnaire and vocabulary test that used a word-definition matching format, similar to the Word Levels Test. Fan (2003, p 233) found Hong Kong students do not consider repetition strategies to be useful in learning L2 vocabulary and claimed this might be "unexpected because Chinese learners are generally believed to have acquired sophisticated

memorization skills in learning their L1 and could easily transfer them to the learning of an L2. There seems to be no evidence in the present study to support this assumption". This study also concluded there to be insufficient evidence to determine whether surface or deep processing strategies are preferred by Hong Kong learners. Fan (2003) commented that guessing strategies are used most often; grouping and association strategies seldom used. The most English vocabulary proficient students in this study reported using various strategies (for example guessing, dictionaries and known words) more often than the less proficient students. Dictionaries were perceived as being very useful by all participating students and many were reported to read stories, newspapers and magazines outside class to increase their English vocabulary. The only strategy perceived by all the participating students to be most useful and used by the most proficient students more often was reviewing and consolidating the knowledge of newly learned words. Fan's (2003, p 234) discussion included a remark by one student, "In reading a sentence or a passage, when I come across a word I have newly learnt, I recall the meaning of the word to help me understand the context". The claim was made by Fan that there was consistent evidence from her study indicating both repetition and association strategies may not be useful when learning L2 vocabulary, as less proficient groups

reported using such strategies more often than the most proficient group of students.

English versus Cantonese comprehension and production of words in Hong Kong undergraduates were investigated in one study (Tsang & Chen, 2005). The participants, who were L1 Cantonese, had learned English as their L2 since kindergarten. The study found that the students could not process English as efficiently as Chinese, despite around 2,500 hours spent in primary and secondary education studying English. Tsang and Chen (2005, pp 225-226) commented, for example, that the undergraduates "demonstrated clear difficulties in articulating and comprehending English, even at the lexical level. Moreover, the words used in this study were all simple and common objects seen in daily life that students should have learned and used them repeatedly in primary and secondary schools". The study looked at issues surrounding the use of Chinese or English as the medium of instruction in Hong Kong schools and the evidence that supports the use of mother tongue in the learning of nonlanguage subject teaching. Tsang and Chen (2005) reminded the reader that their present study did not contrast the native Cantonese speakers to native English speakers and it is not known whether students in EMI or CMI schools would perform differently on the two tasks investigated for the study, namely

semantic categorization and picture naming.

The transition from CMI schooling to EMI university studies was the subject of another study conducted by Evans and Morrison (2011). Two of the main challenges participating undergraduates indicated in their interviews were: understanding technical vocabulary and comprehending lectures. In order to overcome such difficulties, participants used a number of vocabulary-learning strategies including: recording new words in a notebook (analysing affixes and roots) and disciplined reading and listening, as opposed to using specific strategies presented by their teachers. In addition, some lectures were essentially valueless due to technical terms/vocabulary and the accents of some of their lecturers not being understood. In their discussion, Evans and Morrison (2011, p 205) included some comments made by the participating students; one student, an L1 Mandarin speaker from a Chinese-medium Beijing school said, "….there are thousands of new words I haven't seen before, and since I have learn all the things before in Chinese, so firstly I should translate English into Chinese and then I should translate it back again to English". The authors stated this to be a common coping strategy for students switching from their L1 to English-medium teaching and in their study they found none of their EMI participating students adopted such an approach. Evans and Morrison (2011)

concluded students from CMI schools had less experience in listening to English academic discourse and, as a consequence, have less substantial active and passive vocabularies than their EMI peers. Evan and Morrison (2011, p 206) stated, "This lack of vocabulary knowledge seriously impeded their comprehension of lectures and textbooks, and inhibited the communication of ideas in papers and presentations". The authors concluded that an implication of their study findings is for English for specific purposes (ESP) courses to be designed with students' experience in using English and their needs to be taken into account prior to admission on the course.

Research studies have shown that since the handover in 1997, the majority of Hong Kong people still highly regard the importance of being able to communicate in English to a high level for academic and career opportunities. As discussed, the government has responded to the concerns of stakeholders, for example, Hong Kong universities, parents and businesses on the perceived low English proficiency levels of L1 Cantonese speaking undergraduates, by investing enormous sums of money to train L1 Cantonese speaking teachers in native English speaking environments in order for them to teach students to a high native-like standard. Well-designed vocabulary teaching and reading comprehension programmes in local governmental schools are, therefore,

considered highly important to prepare undergraduates for the academic demands of university education.

The following discussion initially focuses on international schools and education worldwide and subsequently on the Hong Kong context.

2.2.4 International schools and international education worldwide.

International schools can vary widely, but are usually private (Carder, 2007; Hayden, 2006; Hill, 2006a); fee-paying (Carder, 2007; Hayden, 2006; Hayden & Thompson, 2008; MacKenzie, 2010) with English as the dominant language taught (Hayden & Thompson, 2008; Yamato & Bray, 2006).   They have been described as business-like in their approach (MacDonald, 2006) and varying "widely in terms of provenance, governance, curriculum, size, ethos, affiliation, accreditation, mission and reputation" MacKenzie (2010, p 108). International schools have been compared to national schools in terms of the curriculum offered; the students (frequently non-nationals of the host country); the teachers and administrators (usually expatriates) and by the management, leadership and governance (Hayden & Thompson, 2008). International schools are said to be different to other schools because "their students develop a cosmopolitan world view: bi- or multilingual, cross-culturally adaptable with highly developed critical thinking skills and an international outlook" (Berting, 2010, p 31).

The social classes of international school parents are said to be upper or upper-middle (Slethaug, 2010), who are described as well-educated professionals with high expectations of their children and the school (Hayden, 2006). The families of students have been described as "globally-mobile expatriate families" or "upwardly-mobile host national families" (Hayden & Thompson, 2008). The parents of international school students are considered affluent, being able to pay school fees for "mostly private, selective, independent education, but there are also scholarships and bursaries" (Baker, 2006, p 252).

Matthews (1989, cited in Allen, 2000, p 128) categorised the student body of international schools into three sub-groups, namely: 1) expatriates, who are native speakers of the school's medium of instruction (MOI) (usually, but not exclusively English); 2) expatriates, who are not native speakers of the school's MOI, but are wishing to learn it and 3) local students, who wish to learn the school's MOI, who are attracted to the prestige of being educated at an international school or do not fit into the local education system. Pollock (1989, cited in Allen, 2000, p 128) categorised expatriates into four groups depending upon the length of time they have lived in the host country and the extent of their cross-cultural skills. The four groups being: 1) look like host-think like

host (when physical and cultural similarities are strong); 2) look different-think like host (when there are cultural similarities, but are physically different); 3) look like host-think differently (when there are physical similarities, but different culturally) and look different-think differently (distinctive in all manners).

A quadrant model to explain international school population stakeholders (students/parents/teachers/administrators) has been proposed (Berting, 2010). The quadrants are headed: colloquial and local; colloquial and international; cosmopolitan and local; and cosmopolitan and international. Colloquial and local are said to be families who speak one national language, have little international school experience and tend to put their children in an international school to learn English and have better future employment prospects. Colloquial and international are said to be English-speaking international expatriate families, often living and working away from their home country for the first time. Parents in this quadrant often do not learn the local language, but wish their offspring to learn. Cosmopolitan and local are said to have "extensive international experience and the corresponding international outlook" (Berting, 2010, p 32); speaking the local language, English and maybe more languages. They tend to send their offspring to

international schools for similar reasons as the colloquial and local parents (social status and better future employment prospects). Berting (2010, p 33) commented that such parents are often considered to be "incredibly good bridge builders because they can relate to and communicate with everyone in the school community". Cosmopolitan and international stakeholders are often international families experienced in living in several countries. They usually speak English, the local language and maybe at least one other language. Berting (2010) commented that such parents have high expectations of international education due to their past experiences, but like colloquial and international parents, will want their offspring to learn the local language. Both the cosmopolitan and local and cosmopolitan and international families are described as having one parent who does not work who is willing to play a part in the local community, for example, helping out at school on the Parent Teacher Association (PTA).

International education is claimed not to be a well-defined concept, having a number of interpretations ranging on the scale from general to specific (Hayden & Thompson, 1995); as being "ambiguous and contradictory" (Cambridge & Thompson, 2001) and as "vast and diffuse" (Dolby & Rahman, 2008). The use of the term within international schools has been described as

"unsatisfactory", mainly because there is not an agreed alternative (Bunnell, 2008). James (2005) contended there is much uncertainty, confusion and disagreement in the term's interpretation and that the term 'international' is ambiguous. The term is said to be misleading because few if any of the values espoused are "exclusively *internationalist* in ethos" (James, 2005, p 313). Cultural diversity promotion within international education, however, is considered to be widely accepted (Simandiraki, 2006). Ian Hill, past Deputy Director General of the IBO has commented that "International education has a particular mission concerned with the promotion of intercultural understanding and critical thinking skills which should be accessible by many students, not just the privileged few" (Hill, 2005, p 33). Hill (2006b, p 98) has additionally commented that for internationally minded schools "It is the attitude of mind reflected in both the teaching and administration of the school, rather than the cultural composition or location, which is important".

Research has been conducted to ascertain the reasons why "local" parents send their children to an international school rather than a local school (for example, Ezra, 2007; Hayden & Thompson, 2008; MacKenzie, 2009; MacKenzie, 2010; MacKenzie, Hayden & Thompson, 2003). MacKenzie et al. (2003) surveyed and interviewed the parents of students attending three

international schools in Switzerland on their reasons for choosing the school their child attended. The three schools all offered the IB's diploma programme and catered for expatriate, as well as a smaller number of local Swiss students. English language education was ranked by parents as being of paramount importance. A good impression created, when visiting the school with regard to human and personal factors rather than impressive facilities or school buildings, was also considered important by parents for their choice. An international education was not considered as important to parents originally from North America or the United Kingdom, but was more so for parents from Switzerland and other European countries. In follow-up interviews, however, parents from North America and the United Kingdom did value international education highly, although this was not their primary reason for choosing the school. The range and diversity of cultures and nationalities within their child's class was appreciated with enthusiasm by the parents.

Ezra (2007) surveyed and interviewed parents in Israel and found that being educated in English was of importance to their children's future success. In addition, public schools were criticised for their lack of classroom discipline, teacher unwillingness to student individual needs and a discord between the cultural values of local schooling and their own. Hayden and Thompson (2008)

cited the work of Schwindt (2003) who found local parents in Germany were dissatisfied with the local educational system and, as there were no restrictions to send their child to an international school, chose this option instead for their child to be educated in English and achieve a qualification such as the IBDP to gain university entrance.

MacKenzie (2009) sent questionnaires to and interviewed parents in Japan. The study concluded that parents wanted their children to mix with children from other cultures, as well as being able to communicate in English for future university education in an English-speaking country. In a comparative paper, MacKenzie (2010) meta-analysed the results of studies undertaken by other researchers in Switzerland, Japan, Argentina, Israel and Singapore and the reasons why parents chose to send their children to international rather than local national schools. Reasons for their decision included poor opinions of state education for parents in Israel and in Argentina, a wish for their child to be bilingual in their L1 plus English. Smaller class sizes were seen as important to Japanese and Argentinian parents. A good impression created when visiting schools in Switzerland and Japan was seen as important by parents to their child ultimately attending that school. A broad curriculum and international examinations allowing their child access to higher education in another country

were seen as important to parents in Singapore and Switzerland in particular. School reputation was also considered of importance to some parents in Switzerland, Japan and Argentina. A wish for their child to be happy was consistent with parents in all five countries.

2.2.5 International schools and education in Hong Kong. The first international schools in Hong Kong were national schools that had adopted the curriculum of England and Wales, primarily catering for the British population (Yamato, 2003). Slethaug (2010, p 29) reported 70 percent of the students in Hong Kong international schools in 1960 were the "children of civil servants, missionaries and traders from the country that founded the schools" but that numbers dropped to just 30% by 2005.

In 1967, the ESF was created by the British colonial government and unlike other international schools, was integrated into the Hong Kong public school system, allowing parents to only pay half of school fees (Forse, 2010). The foundation catered primarily for the large number of British expatriate families living in Hong Kong, providing a British-style curriculum (Forse, 2010; Hayden, 2006; Yamato, 2003). In the 1970s, there were tight measures to ensure ESF schools provided education for native English-speaking non-Chinese speaking students as stated by Forse (2010, p 63), "Local Chinese-speaking

people were debarred from entering ESF schools unless they could demonstrate to the director of education that the purely local system could not cater to their needs". Yamato (2003, p 47) pointed out that some ESF schools were in operation before the foundation was founded and, due to changes in student admission policies, have, as a result, needed to change their name. An example of this being the King George V School. When opened in 1902, it was called the Kowloon British School, but by 1923, became known as the Central British School and was for European students only. In 1947, the school "was opened to students of all races" and changed its name accordingly to the King George V School.

Fearing the possible implications of communist rule after the handover of Hong Kong to the PRC, it has been reported that approximately 10% of local parents chose to emigrate to English-speaking countries (Li, 2002 cited in Kirkpatrick, 2007) and on their return to Hong Kong made the decision for their children to continue their education in English at an international school for continuity (Bray & Yamato, 2003; Cheung, Randall & Tam, 2005; Poon, 2010). Since the handover in 1997, there has been a rise in the number of local Hong Kong students attending international schools (Bray & Yamato, 2003; Ng, 2012; Slethaug, 2010; Yamato, 2003). It has been pointed out that in the late 1980s

and early 1990s there were a number of international schools in Hong Kong catering for children who were returning from abroad and had inadequate competence in Chinese to be educated in the local system (Yamato, 2003).

The ESF and many other international schools (including the focus school for this study) chose to replace the British-style curricula previously offered in their schools with programmes offered by the IB. Currently in 2013, there are 48 primary and secondary schools in Hong Kong offering these three programmes (IB, 2013). The ESF has been perceived by local and expatriate parents as offering high quality English medium education in Hong Kong ultimately giving their children access to university places abroad (Force, 2010; Slethaug, 2010). In 2010, the distinction was made to the number of international schools in Hong Kong to be 58 in contrast to 64 in the whole of mainland China (Slethaug, 2010). Slethaug (2010, p 28) has commented that the aims of Hong Kong international schools during the colonial period were not "to promote multilingualism, intercultural communications, or multiculturalism and not intended to accommodate local pedagogical and cultural perspectives at variance with those from the home country". Indeed, their primary aims were "to educate students in the languages, customs, habits, and pedagogy of the country of national origin".

Many primary and secondary international schools offer Mandarin as an additional language to provide opportunities for students to become bilingual (Forse, 2010; Fryer, 2009; Slethaug, 2010). Students at the Chinese International School pursue a programme that is taught equally between English and Mandarin for students between reception and Year 5 (CIS, 2013). Forse (2010) has argued that many Hong Kong Chinese parents are willing to forsake their child being educated in the local system using the lingua franca of Cantonese with Mandarin lessons, for an international education where Mandarin is possibly taught at a lower level than local schools, but with high-quality English education. Some Hong Kong international schools offer other languages as a second-choice (Yamato, 2003). Yamato (2003) further discussed bilingual and dual-language programmes offered by international schools in Hong Kong are of much appeal to its society. Fryer (2009) found in a qualitative study conducted in a Hong Kong secondary school that English was the dominant language, due to the future university educational needs and aspirations of its students. Mandarin was taught as a separate, compulsory subject, but students had fewer opportunities to practise it in Hong Kong than English. The study reported Mandarin could not achieve equal status as English for such reasons.

Ng (2012) cites statistics of the Hong Kong EDB from 2011 that between 1998 and 2008, the number of international schools grew by 21.4% from 56 to 68. In 2010, the total number of Hong Kong students studying in primary and secondary international schools was 4.25%, equating to 31,860 places (a rise from 2.53% in 1998). Forse (2010) detailed the family backgrounds of Chinese students attending international schools in Hong Kong. 50% of the total spaces available to students of all ethnicities and nationalities are said to be Chinese students in ethnicity or part ethnicity. Breaking down the 50%: 10% are from local backgrounds, when neither parent has lived or studied abroad and have a Hong Kong SAR passport and other documentation. A further 10% are Eurasian, with one parent who is local Chinese and not lived or worked abroad. The other 30% are parents who have lived or studied abroad and have a foreign passport. It has been reported that for many Hong Kong-Chinese families, their children were born in English-speaking countries such as Canada or Australia, communicating in English at school, but speaking Cantonese at home or on the playground; although bilingual, few were biliterate, hence why many Chinese learners enrolled in ESF and independent international schools in Hong Kong (Forse, 2010). Forse (2010) also commented that for Eurasian children, many have attended local primary

schools to ensure that the local dialect of Cantonese is upheld for the Chinese parent, but transferred to the ESF for their secondary education; the child, however, may experience difficulty in writing in English and fail the ESF admission test. Some results from a survey administered to 6,000 parents of ESF students in 2004 are included in Forse (2010). English-medium teaching by native English speakers from the UK, Australia, Canada or the USA; good examination results; good teaching styles; affordable school fees and preparation for university were reasons why Chinese parents chose an ESF school for their child's education.

A qualitative study (Ng, 2012) using semi-structured interviews, sought to understand the needs and inspirations of twenty-five Hong Kong parents who made the decision to send their children to primary and secondary international schools, as opposed to local Hong Kong schools. Ng (2012) found that interviewed parents sent their children to international schools primarily because the curricula offered are inspiring, motivating, multinational and multicultural learning experiences, not taught in the rigid teaching style of the local system. A mixed method study (Ngan & Chung, 2004) quantitatively surveyed 1,680 parents of students from Primary 1 to Primary 6 year groups in 16 Hong Kong schools and subsequently qualitatively used focus group

interviews with nine parents from six of the 16 schools on their reasons for choosing the particular school for their child to attend. Although the study did not focus on international schooling in Hong Kong, the study concluded parents believed that the school: having a good reputation; being recommended by the local community; having a good learning and caring atmosphere; competent teachers with knowledgeable academic and teaching pedagogy; having high school achievement for subsequent secondary school places; having meaningful and sufficient homework for students; having extra-curricular programmes offered; having up-to-date facilities in modern premises; showing cooperation and respect amongst parents; conveniently located with ease of access; having parents valuing it and good, positive performances of the students in public were considered influential in their decision making. The authors also reported that parents did not consider their child's happiness as important nor innovative practices in their school choice. The authors further reported that parents did not consider their child learning Putonghua (Mandarin) to be of importance. This, the authors claimed, demonstrated that the bi-language-tri-lingual policy was continuing to face an uphill battle in Hong Kong.

There appears to be a need for English in Hong Kong. This Special Administrative Region (SAR) of China could be claimed to be a highly

complex multi-linguistic environment with three official languages, that has attempted to adopt the policy of a 'one country, two systems, three languages approach' since the handover back to the PRC in 1997. English is taught in local government CMI primary and secondary schools as an additional language. Studies have reported on the importance Hong Kong people attach to good English proficiency standards for academia and employment. International schools are a popular schooling choice for parents who are financially better off or whose employers pay academic fees. The majority of international schools offer English as the MOI, but other languages such as French and German are also offered. The curricula of EMI international schools include the National Curriculum of England and Wales, as well as the IB's PYP, MYP and DP programmes. Until the 1980s, local L1 Cantonese parents were prevented from sending their child to ESF schools, but now a significant percentage of the enrolled students in ESF and private international schools are L1 Cantonese or Mandarin. Many parents live in mainland China and are now choosing to send their child on a daily basis across the border to be educated in an EMI international school in Hong Kong to be taught by native English speaking teachers. This was certainly apparent in the focus school for this thesis.

In order to be highly proficient in a language, studies have shown that it is essential for learners to acquire vocabulary knowledge. Correlations have been found to exist between vocabulary knowledge and reading comprehension. The following section focuses on such studies and others that have researched the use of reading comprehension intervention programmes in primary schools. This research investigated the effectiveness of two reading comprehension programmes, one dedicated to vocabulary building and one to the reading of nonfiction texts. Studies conducted on vocabulary knowledge and acquisition, as well as the use of informational/nonfiction texts in primary schools are, therefore, reviewed in the following paragraphs.

2.3 Reading comprehension

The first and second research questions 'Do the interventions of teaching vocabulary and comprehension using either nonfiction or fiction texts improve the reading comprehension of six and seven year old students in Hong Kong?' and 'Does the order in which an intervention is implemented have any effect on reading comprehension?' are the foci of this section and studies that have investigated the teaching of vocabulary, including school intervention and instructional programmes; the optimum number of words needed to be known for English fluency and proficiency; the impact of vocabulary on reading

comprehension and the use of nonfiction related texts in schools. There are differences between the two genres, such as the content and layout of texts. There are also similarities, however, in terms of the vocabulary used on a technical level. The similarities and differences can be described in terms of a Venn diagram, with the similarities in the intersection. Reasons for choosing the two interventions of fiction and nonfiction content are discussed.

  2.3.1 Vocabulary instruction programmes. The goal of vocabulary instruction is said to help students: develop and apply vocabulary knowledge; connect new vocabulary to existing knowledge and experience; understand text and develop better use of strategies to figure out new vocabulary independently (Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003). Alvermann, Phelps and Ridgeway (2007, pp 238-239) offered six guidelines for teaching vocabulary. These are summarised as: 1. Start with what students already know and use this knowledge as a base in which to build new terms and concepts; 2. Multiple exposures of new terms and concepts should be provided to the students; 3. Students should be actively engaged in varied contexts using the new terms and concepts; 4. Transfer should be promoted: words and strategies leading to the widest possible applications to other subjects and reading situations should be concentrated on; 5. Discussion should be included

within the vocabulary activities-the meanings of the terms are said to be processed more thoroughly when students need to explain new terms in their own words and 6. Classrooms should be word-rich environments. Alvermann et al. (2007) also detailed a number of strategies that can be used for introducing and teaching content area vocabulary in particular. These included: in-class presentations; semantic mapping; concept of definition maps and semantic feature analysis.

One approach many teachers adopt for vocabulary instruction has been described as an arbitrary list of words given out on the Monday, looking up definitions in a dictionary, sentence writing later in the week and a test on the Friday (Rupley & Nichols, 2005). This, the authors claimed, is merely memorizing words, rather than students learning new words. This view is reiterated in the literature (Ng & Sullivan, 2008; Vacca & Vacca, 2008). Ng and Sullivan (2008) discussed the issue of spelling lists being used as part of English lessons in Asian countries and how rote memorisation of new words does not equate to knowing the meaning as well. Vacca and Vacca (2008, p 114) echo such thoughts adding spelling lists are too narrow an approach for words to be learnt in depth. The authors added, "Having students learn lists of words is based on the ill-founded notion that the acquisition of vocabulary is separate

from the development of ideas and concepts in a content area".

Herbert and Herbert (1993, p 159) described word definitions as being "easier for teachers to present, for students to memorize, and for teachers to test. For this reason a significant portion of vocabulary instruction has been definitional in nature-often to the exclusion of an appropriate emphasis on meanings". Beck, McKeown and Kucan (2002) remarked that when new words are introduced to students, teachers frequently merely use definition which the authors considered to be an ineffective method for learning word meanings. Dictionary definitions are described as problematic due to the vague language that is used providing little information due to space restrictions (Beck et al., 2002). Similarly to Rupley and Nichols (2005), Ruddell (2005) also commented on dreaded word lists and that all too often, vocabulary instruction is isolated with no connections to the student's lives. Ruddell (2005, p 146) stated effective vocabulary instruction "must, if nothing else, *connect.* It must connect with reading/writing assignments, class topics, and the content to be learned; it must connect with students' prior knowledge and previous experience, with their interests and needs for learning content, and with their daily lives; and it must connect with all that goes on in the classroom". McLaughlin (2010, p 94) echoed the views of Ruddell (2005) and Rupley and Nichols (2005) saying "We

need to ensure that they [students] are well motivated and help them see the connections between what they are learning and their everyday experiences. We need to remember that most of our students have had long vocabulary lists given to them since they were in the primary grades and that many are probably still working with such lists in their content area classrooms today". Chapman and King (2009, p 84) similarly argued that an effective way to teach new vocabulary words should be to relate each one to the background knowledge and experiences of the students, with connections made between the content material and the learners' worlds. Chapman and King (2009, p 84) also described a method for teaching new words as: 1. Look at the word; 2. Hear the word; 3. Pronounce the word with the teacher; 4. Spell it; 5. Write it; 6. Look it up in the dictionary, glossary, or text and 7. Write a sentence using the word. Unlike Beck et.al. (2002), Chapman and King (2009, p 85) argued such a method is not wrong; it is one effective method, but should not be overused, as with any strategy and that "Learners in the differentiated reading classroom need to work with many strategies to learn new words".

Effective vocabulary instruction should be multifaceted and encompass the teaching of individual words; extensive exposure to rich language (oral and written) and build generative word language (Nagy, 2005), echoed by Graves

and Slater (2008). The use of repeated reading, combined with word meaning explanations gained most percentage gains (the difference between percentage of tested words before and after the intervention) in word meanings known by the students (Biemiller & Boote, 2006). Context cues and word roots (morphology) have been claimed as two strategies particularly important for vocabulary development (Nagy & Scott, 1984; Newton et al., 2008). However, Nagy and Scott (1984) added that some level of metalinguistic awareness is required for context and morphology to be effectively used. Newton et al. (2008) further commented that to determine the meaning of an unknown word, context cues are probably the most frequently used reading strategy employed; it is an especially important strategy due to many words in the English language having multiple meanings and therefore in oral language, context has an important role to assist young children, particularly those learning English as a second language, as confusing English expressions exist. With regard to word roots, Newton et al. (2008, p 8) discussed word families, letter patterns and affixes (prefixes and suffixes) and claim educators neglect to emphasise that they are word roots that generate the same meaning in many different words, "By separating and analyzing the meaning of a prefix, suffix, or other word root, children can often unlock the meaning of an unknown word". Newton et al.

(2008) also discussed the teaching of word roots as a vocabulary strategy reserved, in the past, for upper-grade or content area classrooms, but that research has provided evidence that this strategy, in fact, should be introduced in classrooms earlier.

Other studies on vocabulary intervention programmes have claimed that they should include wide reading to ensure the identification and recycling of words; teaching individual words; teaching strategies for learning words independently and fostering word consciousness (Graves, 2000). These four components of a vocabulary program were designed to complement a school's comprehension program. Graves (2006) advised students being taught strategies to analyse morphemic, or word-structure, clues (root words, prefixes, suffixes, Latin/Greek roots) and context clues are a component of a comprehensive vocabulary program (echoed by Newton et al., 2008). Context clues have been stated as "probably [being] the most frequently used reading strategy for determining the meaning of an unknown word…..[and] is an especially important strategy for vocabulary development because…many English words have multiple meanings" (Newton et al., 2008, p 7).With regard to word roots, Newton et al. (2008) stated that in the past, teaching word roots was considered a strategy to be used only in upper-grade or content area classrooms, but that

research is informing educationalists that such a strategy should be introduced to younger aged students. Newton et al. (2008, p 8) suggested that "By separating and analyzing the meaning of a prefix, suffix, or other word root, children can often unlock the meaning of an unknown word". By 2008, Graves and Slater had commented vocabulary programs should still include four components, but these were revised as: rich and varied language experiences; teaching word-learning strategies; fostering word consciousness and the teaching of individual words. Stahl and Nagy (2006) also argued teaching specific words, immersion in rich language and developing generative vocabulary knowledge as the three main components to a comprehensive approach to promoting vocabulary growth. In another study (Christ & Wang, 2010) research-based teaching practices supportive of young children's vocabulary learning have been detailed as providing purposeful exposure to new words; intentionally teaching word meanings; teaching word-learning strategies and for offering opportunities for newly learned words to be used. Holme (2012) discussed an approach to language teaching based on movements, gestures and physical imagery that is well-suited, in particular to younger learners. Initiated by the teacher, movements or gestures can conceptualise the abstract meanings of, for example, metaphors.

Numerous studies (Schmitt, 2008; Schmitt, 2010; Waring & Nation, 2004) have reiterated that vocabulary learning programs need to include both an explicit, intentional learning component, as well as a component designed to maximise exposure and incidental learning. It has been suggested that incidental word learning is the primary way in which new words are learnt by people, regardless of age (Carlisle, 2007). This is echoed by Ma (2009) in which she stated that most words are believed to be incidentally acquired through extensive reading, particularly in L1 vocabulary acquisition. The breadth of information about instructed words and active processing (that is encouraging students to think about and use words) also needs to be included within direct vocabulary instruction in order for comprehension to be influenced (McKeown & Beck, 2004). Direct word learning is planned and should include teacher-initiated discussion and student-initiated investigation; using oral language in conversations is said to lead to indirect word learning and "deepen the understanding of familiar concepts and broaden the awareness of new ones" (Newton et al. 2008). The authors add that children will be given opportunities to practice seeing and hearing the same words in varying contexts. Indirect word learning is described as essential for effective vocabulary instruction, as conversations use oral language, giving opportunities for learners to share and

explore ideas and experiences. Conversations deepen understandings of familiar concepts and allow for the awareness of new concepts to be broadened. They also give opportunities for words to be used in a variety of contexts (Newton et al. 2008). A contrasting view by Mason et al. (2003) is that most words are learned through repeated exposures in context rather than direct instruction teaching methods. Their view is based on past studies reporting that higher estimates of words needed to be taught to students. The authors estimated through their own research that 300-400 words can usually be taught to children, but if estimates of 1,000 words reported in other studies are accepted instead then this lower figure should be questioned.

The "vocabulary growth pyramid" is claimed to be representative of the need for vocabulary instruction to include both variety and proportion (Stahl & Nagy, 2006, p 52). The pyramid consists of three levels and all are claimed to be necessary. The authors further ascertain that "No one level of instruction could be appropriate for all words. Rather, the question becomes how many words, and more important, *which* words, should be dealt with at each level of intensiveness". Stahl and Nagy (2006, p 52) detailed the three levels of the pyramid. In summary, Level I, the broadest level, consists of the largest number of words said to be picked up incidentally by learners, which are sub-divided

into two sections, oral and written language. The authors claimed for younger students, the primary method the youngest students will be exposed to rich language is orally, with a shift to written methods for older students. Level II, the middle level, are words requiring some instruction, but with not as much intensity and Level III contains words needing more intensive coverage, but the words are said to be small in number. Similarly, Beck et al. (2002, p 8) suggested when teaching vocabulary and deciding which words should be taught, that words can be divided into three tiers, detailing Tier one comprises the most basic words (such as clock, baby, happy) and that these words "rarely require instructional attention to their meanings in school". Tier two is said to contain words of high frequency for mature language users, found across a variety of domains (such as coincidence and fortunate). The author's state instructional attention toward this tier of words can be most productive. Finally, Tier three words, are described as specific, technical words and "should be introduced as needed to understand the topic of study but would not receive the same attention as Tier two words" (Hall & Sabey, 2007, p 262).

2.3.2 Vocabulary knowledge and understanding. In 1977, inadequate vocabulary knowledge was considered to be a major factor in the school failure of disadvantaged students (Becker, 1977). Recognition of the complexity of

word knowledge is said to be important in understanding the processes by which children's vocabularies grow (Nagy & Scott, 1984). The complexity was described as having five aspects: incrementality; multidimensionality; polysemy; interrelatedness and heterogeneity. Lexical competence and language teaching were the foci of one paper (Richards, 1976). Eight assumptions were detailed with regard to the nature of lexical competence (knowing what a word means) and how vocabulary could be taught. Assumption 1 was that vocabulary continues to expand in adulthood for native speakers of a language, whereas syntax has comparatively little development. Assumption 2 equated knowing a word to knowing the degree of probability (or frequency) of encountering a word in speech or print. Assumption 3 was concerned with the limitations imposed on word use, according to function and situation variations. That is, to suit situation demands, vocabulary will be adjusted. Assumption 4 stated that for a word to be known, so must the syntactic behavior associated with it. Assumption 5 was concerned with the underlying form knowledge of words and an appreciation of derivations that can be made-in other words and word families. Assumption 6 contended that words do not exist in isolation and that associations or relationships exist between words and that an understanding of such relationships, allows language users to understand words. Assumption 7

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focused on the semantic value of words and stated that breaking words into their minimal semantic features then, combining them with other morphemes to produce new words allowed for word meanings to be analysed, for example. Finally, Assumption 8 was that knowing a word meant knowing the different meanings that it can have.

Miller (1999, p. 2) was of the opinion that "knowing a word involves knowing its meaning and therefore, in my view, knowing a word involves knowing its contexts of use". Similarly, other researchers have described vocabulary as "the knowledge of meanings of words…..that come in at least two forms: oral and print" (Kamil & Hiebert, 2005, p 3); that knowledge of word meanings is said to be related to word identification (Mason, Stahl, Au & Herman, 2003) and that knowing the definition of a word includes understanding what the word refers to and having the ability to limit the use of the word to actual examples (Christ & Wang, 2010). Vocabulary knowledge has been described as passive (when the meaning of a word is understood upon its being encountered in isolation or in text); controlled active (when words are recalled on cue) and free active (when users generate a context and spontaneously use words in response to a writing assignment) (Laufer & Paribakht, 1998; Laufer, Elder, Hill & Congdon, 2004; Lo & Murphy, 2010).

Similarly, Kamil and Hiebert (2005) used the term 'receptive' (that which we can understand or recognise), but used the term 'productive' to describe the vocabulary used when writing or speaking (echoed by Dougherty Stahl & Bravo, 2010). Gu (2005, p 3) described words being perceived as form (both orthographic and phonetic) plus their meaning and a vocabulary learning as being "a dynamic complex of interrelated words, and that the relationship among words in the mental lexicon is as important as, if not more important than, the form and meaning of each individual word".

The term receptive (or as sometimes said productive vocabulary) is said to refer to individual word status and to the mental lexicon as a whole; that is, there is a receptive lexicon and a productive lexicon (Ma, 2009). Issues relating to reception/production and breadth/depth of vocabulary knowledge are discussed by Ma (2009, p 40). Receptive vocabulary and vocabulary breadth more or less correspond, very deep word knowledge is not necessarily required to produce a word and, in addition, words can be used "in a narrow context without knowledge of other meanings or inflected forms".

It has been argued that "active vocabulary knowledge can be reasonably extrapolated from measures of receptive knowledge" (Meara, 2009, p 34). Kamil and Hiebert (2005) and Meara (2009) similarly commented that

receptive (or recognition) vocabulary is, in general, larger than productive vocabulary. Productive vocabulary knowledge is said to be more difficult to assess than receptive vocabulary knowledge, as vocabulary produced by learners tends to be context-specific. Using small samples to calculate the true size of range of the productive knowledge from a small sample is difficult; so too are devising tasks in which large quantities of vocabulary are produced in order to generate reasonable estimates (Meara, 2009). Two principal methods of productive vocabulary estimation are: a) controlled productive vocabulary tests in which sentence contexts, definitions and/or the beginning of predetermined target words are given to the testees and b) free productive vocabulary tests, in which written or spoken text is analysed and categorised according to less frequent and infrequent words used by the testee. A testee's productive vocabulary is estimated to be larger when infrequent words have a higher percentage count (Meara, 2009).

Four different vocabularies are thought to be implicitly recognisable within vocabulary knowledge: speaking; writing; reading and listening. Listening can be sub-divided into being either expressive (speaking and writing) or receptive (reading and listening) (Baumann, Kame'enui & Ash, 2003; Herber & Herber, 1993). Baumann et al. (2003, p 755) claimed that in a receptive task,

a learner does not necessarily need to know a word's meaning, whereas in expressive vocabulary, the learner must be familiar with the word to be able to use it, otherwise it will probably not be used at all.

Vocabulary has been described as having four levels: high frequency; academic; low frequency and technical (Nation, 2008; Nation & Gu, 2007, p 2). For textbooks, there are three types of vocabulary described by Vacca, Vacca and Mraz (2011) as: general (everyday words with widely acknowledged meanings); special (everyday, general vocabulary that take on specialised meanings when adapted to a particular content area and technical (when words have usage and application only in a particular subject matter field. High frequency vocabulary includes about 2,000 words in title, of these around 175 of them are function or closed class words (such as articles, prepositions, conjunctions, pronouns, numbers, auxiliary verbs and adverbial particles) and because they are grammatical or about specifying the relations between other substantive meanings they are not of interest to this study. The remaining words are said to be content words (nouns, verbs, adjectives and adverbs) (Nation & Gu, 2007) or terms with substantive meanings (Langacker, 2002) and these form the interest here.

The most "critical indicators" for student vocabulary development have

been stated as: the decoding of words already in meaning vocabulary; learning new concepts (or labels for concepts); using new vocabulary orally and in writing; the application of strategies to learn new words (structure, semantics and metacognition) and the use of reference works and other resources to learn new words (Stahl & Nagy, 2006). Similarly discussed by Baumann et al. (2003) strategies for teaching specific words included: learning new labels; rote vocabulary learning (for example teaching definitions or synonyms); mnemonic vocabulary learning (keyword method); learning new concepts (semantic relatedness and prior knowledge strategies); semantic mapping and semantic feature analysis (organising words related to a core concept into meaningful clusters). Stahl and Nagy (2006) further stated that for word ownership to occur by a learner, vocabulary instruction must meet three criteria: to include both definitional information and contextual information about each word's meaning; to actively involve students in word learning and to provide multiple exposures to meaningful information about the word. This view is similarly echoed, for example, "students will not master new words unless they have frequent opportunities to meet them again" (Newton, et al. 2008, p 6) and "The more experience students have with unfamiliar words and the more exposure they have to them, the more meaningful the words will become" (Vacca, Vacca &

Mraz, 2011, p 234).

2.3.3 Word families. A word family has been defined as the base form,

plus inflected forms (Richards, 1967; Hirsh & Nation, 1992; Laufer & Nation,

1995; Read, 2000). Other researchers (Macaro, 2003) defined word families as

comprising of a headword and all the words derived from it. In morphology, the

base forms or those from which others are derived are collectively known as

lemmas (Read, 2000) though the term has acquired another meaning in

psycholinguistics. Lemmas are similar to the chief member of the word family,

but "more syntactically orientated" (Macaro, 2003). Macaro (2003) added

contracted forms (for example, are not and aren't) are also included within the

definition of lemmas. Derived forms use the affixes –able, -er, -ish, -less, -ly,

-ness, -th, -y- non-, un-, -al, -ation, -ess, -ful, -ism, -ist, -ity, -ize [ise], -ment, in-

(Hirsh & Nation, 1992, p 692). The root word is synonymous to the base form

(Anglin, 1993; Biemiller & Slonim, 2001) but root word will be the term used

here.

In his morphological analysis of vocabulary development, Anglin (1993)

contended root words must be learned and that children learned new derived

words (prefixed and suffixed) at a three time faster rate than root words.

Biemiller and Slonim (2001) stated if the root word is known, it is possible for a

learner to understand derived, inflected and compound words, as well as the relevant semantic or syntactic modification. In recent decades, studies have reached different conclusions as to the number of word families required for unassisted comprehension in English. Goulden, Nation and Read's (1990) study estimated that a well-educated adult native English speaker has a vocabulary of 17,000 base words with an acquisition rate of two to three words per day. Using Webster's Third New International Dictionary (1963), the author's found it contained over 54,000 English word families. Nation and Waring (1997) used this data when they went onto estimate that an educated adult native speaker should know approximately 20,000 of these 54,000 word families and will add approximately 1,000 to their vocabulary size each year. Schmitt (2010, p 29) remarked on Goulden et al's (1990) estimated vocabulary size range that "Of course, learners are unlikely to master this many words, but the good news is that they can operate efficiently in English with a much smaller vocabulary size". In academic or school based study, however, the demands are likely to be heavier and not just for specialised terms within a discipline for the larger lexis of critical engagement.

It has been reported that to provide a basis for comprehension, between 3,000 and 5,000 word families should be known (Nation & Waring, 1997; Qian,

1999) and that when five year olds begin school, on average, they know between 4,000 and 5,000 word families (Nation & Waring, 1997). Manzo, Manzo and Thomas (2009) repeated the 20,000 statistic of Nation & Waring (1997), adding that about 20% of these are learned through direct instruction either in first language classes or other disciplines, with the remaining being learned incidentally through reading and listening. By 2006, however, Paul Nation had revised his calculations, claiming 98% of a text is required for unassisted comprehension, with an 8,000-9,000 word-family vocabulary for written text comprehension and a vocabulary of 6,000-7,000 words for spoken texts (Nation, 2006) (echoed by Schmitt, 2008). With regard to spoken discourse, Adolphs and Schmitt (2004) found 2,000 word families provided 95% lexical coverage for a person to engage in spoken discourse, recommending a wider range of vocabulary in speech is required than originally ascertained. A related point is that one cannot assume that a rare word is necessarily less important to the meaning of the text in which it occurs. Adolphs and Schmitt (2004) also described a limitation of their study was to oversimplify spoken discourse as all being the same, rather than as texts with different spoken contexts having varying characteristics. By 2008, however, Schmitt (2008) concluded like Nation (2006) that between 5,000 and 7,000

word families were required for oral (spoken) discourse in English. Schmitt reported in 2010 that in personal communication with Paul Nation he had suggested general vocabulary ends at approximately 5,000 word families and that for learners to operate in a technical field, technical vocabulary for the appropriate field should be learnt in addition to the general vocabulary (Schmitt, 2010).

As said, high frequency words make up between 80-90% of the words in a text (Nation & Gu, 2007; Nation & Waring, 1997; Read, 2004) and should be deliberately foregrounded in the curriculum (Nation & Gu, 2007). On most high frequency word lists, there are claimed to be around 2,000 word families (Nation, 2008: Nation & Waring, 1997). Once learned, the teacher's focus should be to assist learners develop the necessary strategies to comprehend and learn the low frequency words of the language (Nation, 2008).

2.3.4 Vocabulary and reading comprehension. Four areas that can be barriers for struggling readers have been identified as: vocabulary (for example, lack of exposure, poor background knowledge, no prior experiences, limited mental word banks, minimal knowledge of context clues and unable to use dictionaries and glossaries); decoding (for example, insufficient understanding of letter-to-word relationships, no ability to identify letter sounds, inadequate

knowledge of the rules for syllabication, insufficient ability to identify root or base words and inadequate recognition of prefixes and suffixes); comprehension (for example, inability to find important facts, weak inference skills and difficulty in getting the "gist" or summarising) and motivation (for example, the learner sees no need, purpose or relevance, has no internal desire and does not make links and connections to their world) (Chapman & King, 2009, p 3). Similarly, possible causes of comprehension difficulties have been identified as: decoding difficulties; difficulties with meaning (vocabulary); difficulties with syntax; limitations in working memory; poor inference making; inadequate comprehension monitoring; limited prior domain knowledge and insensitivity to text structure (Wagner & Meros, 2010, p 2).

The National Reading Panel (formed by the United States Congress in 1996) reviewed scientific research related to reading (Newton, Padak & Rasinski, 2008) and remarked on the importance of vocabulary in reading achievement. Recognised for more than half a century this view appears to be unchallenged. Numerous studies support this contention of strong connections between readers' vocabulary knowledge and reading comprehension ability (August, Carlo, Dressler & Snow, 2005; Basurto, 2004; Blachowicz & Fisher, 2004; Dougherty, Stahl & Bravo, 2010; Duke, 2009; McBride-Chang, Shu, Ng,

Meng & Penney, 2007; McLaughlin, 2010; Nagy, 2005; National Reading Panel, 2002; Perfetti & Hart, 2001; Ruddell, 2005; Rupley, 2005; Rupley & Nichols, 2005; Shanahan, 2006; Stahl & Nagy, 2006; Tam, Heward & Heng, 2006; Vacca, Vacca & Mraz, 2011; Verhoeven, van Leeuwe & Vermeer, 2011). Perfetti and Hart (2001) referred to earlier research (Perfetti, 1985) in which Charles Perfetti argued children less skilled in comprehending were also not so good in their word reading. This was similarly later echoed in Perfetti (1997, p 342) when it was concluded that "poor comprehension was typically the result of low quality verbal processing manifested in word decoding, memory for recently processed text, or both". Perfetti and Hart (2001, p 189) further concluded, "Lexical skills allow comprehension, comprehension allows reading practice, reading practice strengthens lexical skills, etc". Strong correlations between vocabulary knowledge and reading comprehension have been claimed by one researcher to be in the region of .78-.82 (Qian, 1999), but were later reported as .73-.77 (Qian, 2002).

The most common ways in which vocabulary size is estimated are by word frequency and/or familiarity and word length. When sentences contain higher occurring, high frequency words and are shorter rather than longer in length, they will be more accessible to less skilled readers (Nation & Coady,

1988). Kamil and Hiebert (2005, p 4) commented "Vocabulary serves as the bridge between the word-level process of phonics and the cognitive processes of comprehension. Once students have become proficient at the decoding task, however, a shift occurs in the vocabulary of text. Texts now become the context for encountering vocabulary that is not within one's oral vocabulary". Similarly, Newton, Padak and Rasinski (2008) described word and concept meaning as the realm of vocabulary and saw how it was essential for readers to be able to decode or sound out of words and have the ability to define them. The authors also that stated an integral part of effective instructional reading programs was vocabulary instruction. This has been an assertion that has continually been researched in recent decades. For example, Beck, Perfetti and McKeown (1982, p 512) reported a long-term vocabulary instruction experiment where following instruction in lexis, subjects performed at a significantly higher level than the control subjects. That is, on a vocabulary subtest, the experimental groups showed a raw score gain from pre- to posttest of nearly 43% compared to the control groups of 17%. When tested by t tests for correlated scores, the experimental subjects showed significant gains as $t(22) = 5.88$, $p < .001$ compared to the control subjects as $t(22) = 2.27$, $p = .03$.

2.3.5 Information/nonfiction/expository texts.

Examples and structure. The term 'information books' is synonymous with nonfiction or expository texts (Freeman & Goetz, 1998; Pike & Mumper, 2004; Stoodt-Hill & Amspaugh-Corson, 2009). The main text types are said to be: Expository Text (whereby the purpose is to convey information about the natural or social world); Persuasive Text (to persuade people to think or do something); Procedural Text (to give directions for doing something) and Nonfiction Narrative (to tell a true story) (Duke, 2009). This view is shared by Mallett (2003), who categorized informational texts into two main groups: narrative non-fiction (when texts are organised chronologically, for example, life cycle books) and non-narrative non-fiction (when texts are organised according to subject or topic logic and books ordered around questions, information picture books, first books on subjects such as science, history or geography).

Information books have been described as representing "the genre of literature whose primary purpose is to inform. Authors of informational books employ an expository writing style with characteristics different from narrative style" (Freeman & Goetz, 1998, p 7). Williams (2005) similarly described narrative texts as following a single general structural pattern, compared to expository texts which come in a variety of patterns (description, sequence,

compare-contrast, cause-effect and, problem-solution). Expository texts convey and communicate factual information, contain more unfamiliar vocabulary and less information directly related to personal experience (Hall, Sabey & McClellan, 2005).

Most of the reading material that is found in classrooms, workplaces, magazines and Internet websites, with examples including concept books, nature identification books, life-cycle books, experiment and activity books have been described as informational in content (Stoodt-Hill & Amspaugh-Corson, 2009). So too have picture books, cook books, newspapers, magazines, brochures, travel guides and Internet selections (Dorfman & Cappelli, 2009). Informational texts have been described as reliable sources of authoritative information, usually presented as prose or in document format as textbooks, encyclopedia entries, journal articles and manuals, with examples of document formats described as tables, charts, graphs and maps (Brown, 2003).

The layout or text organisational features are said to include: table of contents; index; glossary; headings and subheadings; charts, diagrams, maps, drawings; photographs; captions and labels (Bradley & Donovan, 2010; Parkes, 2003; Pike & Mumper, 2004). Stoodt-Hill & Amspaugh-Corson (2009) similarly described nonfiction being organised with headings and sub-headings

and that technical vocabulary is identified.

Use in the classroom. The lack of informational texts being used in classrooms has been documented in numerous studies (Duke, 2000; Duke, 2003; Duke, 2004; Hall et al., 2005; Moss, 1997; Moss & Newton, 2002; Read, Reutzel & Fawson, 2008; Saul & Dieckman, 2005; Sullivan Palinscar & Duke, 2004; Yopp & Yopp, 2000). Pike and Mumper (2004) remarked that in United States classrooms, up until the late 1990s, the majority of nonfiction books found were textbooks used in sciences, social studies and math, often referred to as the content areas and that in grade four and beyond, transition for students was from predominantly narrative texts to content area materials. It has been suggested that nonfiction texts are gaining greater prominence in children's literature and that this is indicated by the number of awards that are awarded for nonfiction (Stoodt-Hill & Amspaugh-Corson, 2009).

In the late 1990s, one study (Moss, 1997) using oral retell of a children's informational trade book with first grade students found them to be capable of comprehending expository texts. They could summarise text information and identify information they considered important, offering opinions and rationales for their opinions. In 2000, Nell Duke and her colleagues researched whether exposing children to more informational texts in their early schooling enhanced

the benefit to them, made no difference, or even harmed their reading development by including developmentally inappropriate texts at a critical time in their literacy development (Duke, 2000; echoed in Duke, 2003; Sullivan Palinscar & Duke, 2004). The results of Duke's 2003 study indicated there to be no harm and indeed some modest benefit from increasing the exposure to such texts with first and second grade students. The experimental group, who were exposed to more informational texts, were better writers of informational text than the children in the control groups. They progressed more quickly in reading level and showed less decline in attitudes toward recreational reading by the end of grade one. Another study (Edmunds & Bauserman, 2006) interviewed elementary-aged students from pre-K through to Grade 5 about what motivated them to read. The researchers found that children get excited about reading expository text and feel such texts are important because they gain knowledge and can share facts as well as knowledge learned. Their analysis also found that 76% of the students were sharing expository text that they had chosen more frequently themselves and 14% had been assigned such texts to read by their teacher.

Another view expressed has been the familiarity and understanding today's students require of expository or nonfiction texts in order to survive the

"Information Age" (Benson, 2003; Moss, 2004). One study (Kamil & Lane, 1998) that analysed 50 websites, found that 48 of them contained texts of an expository nature, with just two containing narrative texts. This view has been supported by studies which show that most text on the Internet is expository and being able to read such text requires the reader to be familiar with its concepts, vocabulary and organisational format. Such text may include hypertext (or text with links to other texts) (Schmar-Dobler, 2003). Also, when students are browsing the Internet, or searching for an answer to a question, they are using skills required not just to immediately comprehend a text, but find whether or not it contains the information they require, perhaps without reading it, applying their knowledge of the reading process to navigate their way through Internet text (Schmar-Dobler, 2003).

Difficulties often associated with helping young children learning to comprehend informational texts are: a) an increase in unfamiliar and content-specific vocabulary; b) the use of new and unknown text structures and c) an increase in headings/subheadings and graphics (for example, charts, diagrams and graphs) (Hall & Sabey, 2007). Duke (2003, p 3) raised the question whether there are "Any good reasons not to include informational text in early schooling?" She described two reasons often cited in studies as: young

children not being able to handle such texts and that they do not like informational texts. Duke argued neither reason was a good basis for research and if given the opportunity, young children can be successful with such texts, can learn content, can understand and retell such texts, can learn about the language and other linguistic features of such texts, respond to and discuss such texts whilst also being able to write their own informational text. This final point has been reiterated by Duke and her colleagues in another study (Duke, Martineau, Frank & Bennett-Armistead, 2008). The study concluded that the use of such texts in classroom activities and their presence within the classroom environment can encourage students to become better informational text writers and have a more positive attitude toward reading by the end of the first grade.

Impact on reading comprehension and achievement. Informational texts can support students with their fictional text comprehension in three ways: by building background knowledge; by helping develop text-related vocabulary and increasing motivation to explore the topic being discussed (Soalt, 2005). When units of study contain fiction and informational text material on the same topic, students are given multiple contexts in which to explore new vocabulary. Reading more nonfiction texts are said to lead to higher reading achievement (Kletzien & Dreher, 2004) and providing more exposure to "non-narrative texts

in the early grades may help mitigate the difficulties many students encounter

with these texts later in schooling" (Caswell & Duke, 1998, p 108) echoed by

Brozo & Calo (2006); Duke (2000); Duke (2003); Hall & Sabey (2007); Parkes

(2003); Stephens (2010); Yopp & Yopp (2000); Young & Moss (2006). Duke

(2003, pp. 4-5) named the six reasons to include informational texts in

elementary schools as being: they are the key to success in later schooling (that

is, more and more textbooks and other informational texts will be encountered

as students move to higher grades); such texts are ubiquitous in the larger

society; they are the preferred reading material for some children; they often

address children's interests and questions; they build knowledge of the natural

and social world and have many important text features, for example, technical

vocabulary. Young and Moss (2006) similarly discussed nonfiction trade books

as providing students with essential exposure to expository texts that constitute

the reading content encountered during their later schooling into adulthood.

Other researchers similarly argue that information books "help children see

connections and interrelationships among content and concepts" (Freeman &

Goetz, 1998, p 3). This is similarly referred to in other studies (Moss, 2004) that

student oral language is developed through the retell of expository text found in

information trade books with relationships identified among pieces of

information. Moss (2004) added that the concrete nature of informational texts can be of particular benefit to English language learners through making connections between their first and second languages. Freeman and Goetz (1998) added that informational books foster children's critical thinking and problem solving skills, as books on the same topic will be compared and contrasted; their knowledge base is expanded and deepened; their imagination is stimulated and through their reading, they learn to inquire, problem solve, question and investigate.

Science-related informational texts and their impact on reading achievement was the subject of one mixed methods study (Stephens, 2010). The intervention group comprised 40 fourth grade students from two ethnic groups (African American and Hispanic) in a Texas public school. The nonintervention group represented three primary ethnic groups (African American, Hispanic and White) and comprised 15 students. A 12-week intervention used high-interest, science-based texts (life science, physical science, earth and space science), read aloud by the teacher 2 or 3 days each week. Students used reflective journals and wrote brief written responses after the read-aloud sessions. The written responses included the book title and any of the following: a summary of the big ideas; a brief expository retelling; simple graphic organizer or other

short written responses (Stephens, 2010, p 319). Students also read other

science-related texts independently (including periodicals) or with a partner.

Using the Texas Assessment of Knowledge and Skills (TAKS) test and when

analysing the whole groups, the mean scale score for the intervention group was

found to be slightly higher than for the nonintervention group, but there was no

significant difference (p = .65). When analysing the results by gender, the

female students' mean scale scores were higher than the male students, but the

difference was not statistically significant. When analysing the results by

ethnicity, Stephens found that there were no significant differences between the

intervention and nonintervention groups, but when examining the scores of just

the intervention group, the mean difference scores of the Hispanic compared to

the African American students was deemed significant, as p = .02 with an effect

size of .15. Stephens reported that the intervention protocol did help to improve

reading comprehension achievement, as the intervention group gained 19 points

on the comprehension subtest of the Gates-MacGinitie Reading Test (GMRT).

When analysing the GMRT scores by gender, the intervention group of female

students demonstrated a 28-point growth in reading achievement, compared to

13 points by the male students. Although there was no statistical significance

between the African American and Hispanic students on the GMRT, both

groups gained on their reading comprehension scores. Due to the small numbers of participating White students (*n*=15), only scores for the African American and Hispanic students were analysed. GMRT results indicated significant gains in the intervention classroom, but no gains were found in the nonintervention classroom. Stephens (2010, p 328) concluded and claimed that, "These findings suggest reading comprehension skills may be improved by intentionally increasing the amount of direct teacher instruction as part of an instructional protocol". Stephens described a number of limitations to the study and that a number of factors and variables could not be controlled, such as students' prior knowledge, methods of instruction and teaching styles. Stephens also reported that the number of weeks that could be devoted to the intervention was limited to the school calendar.

Topics covered in informational texts are said to match what students learn in the content areas of science, social studies, mathematics and technology. Such reading material broadens student understanding and knowledge of similar subjects/topics written by different authors (Parkes, 2003), echoed by Young & Moss (2006). Informational texts have also been claimed to encourage the exploration of topics of interest and to satisfy student curiosity (Freeman & Goetz Person, 1998) (echoed by Duke, 2000; Gaffney, Ostrosky & Hemmeter,

2008; Sullivan Palinscar & Duke, 2004; Yopp & Yopp, 2000). Dorion (1994, p 618) discussed the idea that reading for information can be fun and children are "naturally curious, with a great thirst to know about the world around them. They are not bored by facts, data, or information; they are only bored by how such information is presented or by what they are expected to do with it". Calo (2011, p 291) similarly commented that informational texts can, "ignite curiosities about the world around them". It has also been reported that photographs used to illustrate informational texts interest and engage children, allowing them opportunities to visualise and make connections to their own experiences of the real world and could be helpful for second language English learners in their reading comprehension (Parkes, 2003).

In order for an understanding of the subject matter being studied to be developed, knowing the technical vocabulary of a content area is critically important and is often difficult for students to acquire due to the following reasons: a) because it is unfamiliar, multi-syllabic and needs to be learned in relation to concept clusters of words that are similarly unfamiliar and multi-syllabic and b) such technical vocabulary is not often used outside the class in which it is taught and therefore not the opportunities for refinement and reinforcement of meanings in a variety of settings, unlike general vocabulary

(Herber & Herber, 1993). All content areas are said to have a large collection of specialised or technical terms denoting important concepts that may already be familiar to older-aged students. Some words may have meanings that are commonly known, but within a content area, maybe more specialised in meaning and be exemplified by the word order, such as mathematical terms (for example, proof) and some technical terms may only be specific to a particular content areas (for example, photosynthesis) (Alvermann et al., 2007).

Three major differences are said to exist between the vocabulary of reading lessons and content area lessons (Armbruster & Nagy, 1992, p 550). How closely the meaning of the word is connected to the main objective or theme of the lesson is the first concern. The authors described how reading lessons with their story focus make quite different lexical demands to those that focus on understanding factual material. In reading lessons the "gist of a story"; whereas content area vocabulary usually represents major concepts necessary for comprehension and learning of the given text. The second difference is described as the degree to which the vocabulary represents familiar concepts. In reading lessons, the learning of new vocabulary usually involves the learning of a new label for a concept that a student already has. For content area lessons, the authors claimed new vocabulary is rarely associated with familiar concepts

and that students are usually learning brand new concepts in addition to learning new vocabulary. The third difference is claimed by the authors to be "the degree of semantic relatedness of the vocabulary words". Such vocabulary is usually unrelated to each other in reading lessons, in contrast to content area lessons, where they are often related in their meaning (Armbruster & Nagy, 1992). Rare or uncommon words are often associated with particular topics that the text concerns, such as in the content areas (Mason et al., 2003). Content area lessons require students to read for information (Watkins & Lindahl, 2010).

The review of studies conducted on vocabulary knowledge, the explicit teaching of vocabulary and the use of informational/nonfiction texts assisted in the design and content of the intervention programmes. Word families and the necessity for repeated or multiple exposure of lexis, for example, were considered an integral component of the fiction intervention sessions. A variety of informational books were available in the nonfiction sessions for the students to witness similarities and differences in layout and structure, as advocated in published studies.

The final section of this chapter focuses on the third and fourth research questions, namely 'Do ten and eleven year old students (Year 6) improve more

in their reading comprehension than six and seven year old students (Year 2)?'

and 'To what extent do the independent variables of gender, first language and

intervention order have an effect on reading comprehension score gains?'

Studies that researched age-related theories, gender issues and their possible

impact on language acquisition for first and second language learners are

subsequently reviewed.

2.4 Student cohort L1 and L2 age-related learning theories and gender issues

The "critical period position" (Montrul, 2008), synonymous with the

"sensitive period" (Herschensohn, 2013) or "Critical Period Hypothesis (CPH)"

(Ioup, 2005; Singleton, 2003; Singleton & Ryan, 2004) is said to be the area in

which L2 researchers are most divided upon (Ioup, 2205; Singleton, 2003) and

has been commented as "one of the most widely debated issues in second

language acquisition research" since the late 1960s (Hyltenstam &

Abrahamsson, 2003). Unlike L2 learning, Ioup (2005) stated that with regard to

mother tongue and L1 learning, most researchers are in agreement that a critical

period exists. Herschensohn (2007) compared first language acquisition (L1A)

to second language acquisition (L2A) as L1 learners "thoroughly acquire all

aspects of the native language [whereas] for L2A there are differential age

effects in different domains-for example L2 learners notoriously have more difficulty getting correct pronunciation than they do fluent syntax". DeKeyser (2005, p 446) has commented that the role of age in L2 acquisition is not uncontroversial; that the existence of a critical period is being questioned by L2 researchers and that the "very fact that post-puberty learners do not go as far in their second language as children is not disputed; what is at issue is the exact shape of the age-proficiency function, and above all, its cognitive interpretation".

Research conducted in recent years is suggesting that a maturationally sensitive period exists for L2A; that the offset decline begins at around 4 years old and a steeper decline occurs during the teenage years (Herschensohn, 2013). L2 learners have been shown to decline in ability with increasing age of onset of acquisition (AoA) and a reason why scholars tend to claim a critical period in L2A exists post-puberty (Herschensohn, 2013). Herschensohn (2013) agrees with other researchers that advantages for younger learners in language acquisition do appear to exist, however, there is insufficient evidence for temporal limits to be explicitly established for a critical period biologically.

Earlier research (for example, Krashen, Long & Scarcella, 1979) contended that for older children and adults, L2A is usually faster than for

younger children (older-is-better), but that child L2 learners are usually superior in respect of their ultimate attainment levels (younger-is-better in the long run). Singleton and Ryan (2004) similarly discussed the various positions favoured by researchers as: 'Younger = Better'; 'Older = Better'; 'Younger = Better in Some Respects' and 'Younger = Better in the Long Run'. Other researchers, for example, Hyltenstam and Abrahamsson (2003, p 540) commented that the attainability of native like ultimate proficiency from mere exposure to a given language; younger learners outperform older learners as far as eventual outcome is concerned and younger learners are better at language learning than older learners as three different conceptualizations on which L2A research questions are thought to be based upon.

In general, it is now contended that age increase is correlated with incomplete final-state L2 grammars (Herschensohn, 2007). Julia Herschensohn added, however, that despite this notion, there are adult L2 learners with the capacity to become indistinguishable from native L1 speakers. Herschensohn (2007, p 137) further highlighted comparisons between children learning their native L1 and adults learning an L2 as, "children succeed in completely learning their native language with no conscious effort and mere exposure, while adults fail by completely learning L2 with instruction, negative evidence

and enforced motivation". Herschensohn (2007, p 139) added the differences between L1A and L2A are complex, partially maturational and not exclusively attributable to Universal Grammar (UG).

Montrul (2008, p 46) remarked that critical/sensitive period studies "seek to establish a correlation between age of onset of L2 acquisition with degree of proficiency in the language" and furthermore, such studies usually focus on immigrants who have arrived in the L2 environment from their home country, learnt their L2 at different ages and have resided in the host country for a number of years. Numerous studies have been conducted to ascertain the L2 language proficiencies of immigrants who moved to the United States. Montrul (2008), for example, cited the work of Oyama (1976) who studied Italian immigrants and their English pronunciation abilities. The immigrants had lived in the USA from the age of 6 through to 20 years for between 5 and 18 years. Oyama (1976) found that younger arrivals were much better at reading aloud with English-like pronunciation than later arrivals. Furthermore, Oyama (1976) concluded that factors such as residence length, years of exposure to English and motivation to learn the language had no effect on the results. The need for more representative samples to be taken from immigrant populations has been expressed, as opposed to convenience sampling, where it has been argued, the

sample is strongly biased in favour of more educated individuals with the result that age effects are minimized by the higher and cognitively more developed levels of language exposure that education entails thus minimising age effects (DeKeyser, 2013). DeKeyser (2013) also commented on the inadequacies of age research. For example, different learning problems not being distinguished between, or very narrow learning problems only being investigated. He also listed what he considered to be fundamental pre-requisites when researching age research which included:

1. all participants should be native speakers of the same L1 to minimise first language effects;

2. all participants should have spent most of their time communicating in the L2;

3. to ensure that all have similar amounts of exposure and something that cannot be assumed from the simple fact of their being immigrants, participants should be from a variety of socioeconomic backgrounds;

4. participants should be resident in the country for at least ten years and

5. not beyond middle age at testing.

DeKeyser (2013) stated that such pre-requisites would ensure sufficient input and practice in the L2, bias avoided towards highly educated people and

the effects of cognitive aging on test results being avoided.

Target language exposure with or without formal instruction has been argued as an important consideration when researching the effect of age in L2A (Cenoz, 2003). For students in foreign language contexts not communicating outside the classroom in such a language, their exposure is going to be limited and this suggests a very different scenario to those students immersed from a very early age in their L2 context (Cenoz, 2003). Cenoz (2003) reported a study conducted with students for whom English is taught as a third language (L3) in the Basque Country in northern Spain. The 135 participating students were in primary and secondary education and had each received 600 hours of English instruction. The three groups of students had started learning English at three ages: 4, 8 or 11 years old and at the beginning of the study were the mean ages of 10.1, 12.9 and 16.3 years old respectively. ANOVA and T-test analyses were conducted and indicated that on the majority of the measures, the secondary school student's scores were higher than their younger counterparts. Cenoz (2003) reported possible explanations for the results were related to cognitive maturity and higher developed strategies in test-taking. In terms of attitude and motivation, however, the youngest students were had higher scores than their older counterparts. Cenoz (2003) reported that age-related psychological factors

(school rejection) could explain their negativity.

With regard to gender, it has been commented "gender gaps" exist (Francis et al., 2012) and trends in the United Kingdom of girls outperforming boys exist in Hong Kong as well. Francis et al. (2012) cite the research of Mc Call and Beach (2000) who reported elementary school girls are performing better in Chinese and English and that parents and teachers are more sensitive to boys underachieving in these subjects. Issues surrounding English as the preferred MOI were also discussed by Francis et al. (2012, p 134) and boys being at a disadvantage due to learning in their L2, "many underachieving boys are struggling with not only literacy in two languages, but also learning and understanding all other subjects in the more unfamiliar language. This demands attention to the reasons for boys' (global) under-performance in literacy, and the gender constructions underpinning this pattern".

Issues surrounding the "critical period position" or "sensitive period" were relevant when deciding on the age range of students participating in this thesis. Younger students (six and seven year olds) in Year 2 were chosen in the initial study (Study 1) and Study 2 to explore critical periods and the impact of early intervention reported in studies (Duff et al., 2008; Stephens, 2010). A comparative year group of older students in Year 6 (ten and eleven year olds)

were selected in order to collect and analyse testing data to further explore critical periods in language acquisition.

This chapter reviewed studies conducted in Hong Kong that have addressed the concerns of many L1 Cantonese parents with regard to the standard of English teaching in CMI and EMI local governmental schools. It has become increasingly common for L1 Cantonese speaking parents in a financially secure position to send their offspring to EMI international schools, as opposed to local government schools. Their reasons include: wanting their child to be taught with an international curriculum; in a western teaching style and by native English speaking teachers. Published studies have also reported on the English language proficiency and, in particular, the poor vocabulary knowledge at the technical level (Nation, 2008; Nation & Gu, 2007) of L1 Cantonese speaking secondary students and undergraduates in Hong Kong.

This chapter explored studies conducted primarily in the United States on the use and success of reading intervention programmes in schools and the explicit teaching of vocabulary. Research on effective intervention programmes have concluded connections should be made between prior knowledge and experiences (Chapman & King, 2009; Ruddell, 2005); the teaching of individual words and extensive exposure to rich language (Nagy, 2005);

repeated reading (Biemiller & Boote, 2006); context cues and word roots (Nagy & Scott, 1984; Newton et al, 2008). Studies have also reiterated that vocabulary learning programmes need to include both an explicit, intentional learning component, as well as a component designed to maximise exposure and incidental learning (Nation, 2008; Schmitt, 2008; Schmitt, 2010; Waring & Nation, 2004). Studies conducted in primary schools were also reviewed on the lack of exposure students have had to nonfiction texts and the benefits of using such texts in school to student reading comprehension (Duke, 2003; 2009). Such studies on vocabulary instruction, intervention programmes and nonfiction/information texts underpinned the design and content of the intervention programmes used in this research.

It has been argued that for L2 learners, a decline in their language acquisition begins at approximately 4 years old and continues to steeply decline through the teenage years. This has been referred to as the maturationally sensitive period (Herschensohn, 2013). Students in this research were from six first language backgrounds. The reviewed studies on critical or sensitive periods in L1 and L2 language acquisition highlighted the need, therefore, for the interventions to be conducted with older as well as younger students.

The following chapter describes the methodology used in this research.

CHAPTER THREE

METHODOLOGY

This chapter reports on the methodologies employed in the study and outlines the research design and reasons for the choice of research. The first section describes Stage 1: quasi-experimental studies and the interventions, testing instruments, research questions, focus school environment, student recruitment, and ethical considerations.   Each of the three studies is discussed in terms of participants, procedures, interventions and tests employed.

3.1 Research Questions

The research questions underpinning the quasi-experimental studies were:

1. Do the interventions of teaching vocabulary and comprehension using either nonfiction or fiction texts improve the reading comprehension of six and seven year old students in Hong Kong?

2. Does the order in which an intervention is implemented have any effect on the reading comprehension of students?

3. Do ten and eleven year old students (Year 6) improve more on their reading comprehension than six and seven year old students (Year 2)?

4. To what extent do the independent variables of gender, first language and intervention order have an effect on reading comprehension score gains?

3.2 The focus school environment

All students who participated in the studies attended the same tuition fee-paying, private international school in the New Territories of Hong Kong. The school was chosen as the author of this research was employed as a classroom teacher and permission had been granted by the senior management team to contact parents for permission for their child to participate. The recruited students, therefore, could be considered a convenience sample, as opposed to a representative sample (DeKeyser, 2013).

The school was located within a private housing estate and consisted of three main buildings including 16 mainstream classrooms, two Chinese Studies classrooms, music room, library, main school hall and administrative offices. There was a large playing field used for a variety of sporting events.

Approximately 400 students enrolled at the school. There were two classes in each year group ranging from pre-nursery to Year 6, with a maximum of 25 students in each class. Lower year group classes (pre-nursery to Year 3)

had a dedicated full-time assistant teacher and older year group classes (Years 4,

5 and 6) shared one assistant teacher.

The majority of the students attending the school were first language

Cantonese speakers and there were 31 nationalities represented in the student

population (CIS, 2012). The MOI was English. Chinese was offered as an

additional language taught in daily lessons of approximately 40 minutes. There

was language support at the school for L2 English students with English as an

alternative language (EAL) and for L1 non-Chinese students, Chinese as a

second language (CAL).

3.3 Recruitment of students and ethical considerations

Ethical guidelines of the Hong Kong Institute of Education were

adhered to and approval was obtained prior to the studies commencing. Ethical

issues such as voluntary participation, informed consent, no harm to the

participants, anonymity and confidentiality were considered at all times (Cohen,

Manion & Morrison, 2007; Creswell, 2008; de Vaus, 2001; Rudestam &

Newton, 2007).

Permission to access student records (Gay et al., 2009; O'Donoghue &

Haynes, 1997) for information on student dates of birth was given by the focus

school's principal with the assurance such data would be published with

anonymity. Permission was also gained from the principal to send letters to the parents of all students in the targeted year groups. The letter informed them of the planned interventions and testing procedures; gave assurance that students were not going to be given additional homework; there would be no financial costs; the intervention programme was entirely voluntary and they were entitled to withdraw their child at any time should they wish to. The initial letter included a permission reply slip and date to return by. They were invited to make contact in person or by email should they have any questions. The letter can be found in Appendix A. After two weeks, parents who had not replied were sent a reminder letter. Additional students were recruited in all three studies. During the course of the intervention programmes, parents of participating students were sent additional letters via their child's classroom teacher to remind and/or inform them of session dates and times. Parents were also assured their child's anonymity would remain confidential at all times. The students were anonymised by their study number i.e. 2 for Study 2, a dash and an assigned student number only known to the researcher.

3.4 Study Design

A search of the literature explored studies conducted in recent decades on vocabulary acquisition and the use of nonfiction texts in schools. Few studies

were found that investigated the reading comprehension of L1 and L2 English students in Hong Kong international schools, the impact of reading comprehension intervention programmes or the exposure students have to nonfiction texts. It was, therefore, decided to design two intervention programmes: one dedicated to vocabulary building and the other to using nonfiction texts in an international school context.

3.5 Stage 1: Quasi-experimental studies

3.5.1 Rationale, validity and reliability. Quantitative data were collected through a quasi-experimental approach using nonequivalent control groups (Ary, Jacobs & Sorensen, 2010; Best & Kahn, 2003; Christensen, 2001; Cohen, Manion & Morrison, 2007; Cook & Campbell, 1979; Creswell, 2008; Gay, Mills & Airasian, 2009; McBurney & White, 2007; Martin, 2001). Quasi-experimental designs allow researchers to reach reasonable conclusions despite the fact full control is not possible, as would be with a true experiment, but internal and external validity threats must be considered in subsequent interpretations (Ary et al., 2010). Quasi-experimental and randomized experimental designs are similar due to the manipulation of an independent variable, but because subjects or participants are not randomly assigned to treatment groups (Ary et al., 2010; Mertler & Charles, 2008; Muijs, 2011).

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Muijs (2011) has commented that control groups in true experiments can be referred to as "pure control groups", but should be referred to as comparison groups instead in quasi-experimental designs. Muijs (2011, p 23) further commented that in educational settings, it is not easy to make experimental and comparison groups as similar as possible due to "the number of variables that may affect outcomes".

The random sampling (Martin, 2000; Rudestam & Newton, 2007) of students from the overall student population was not an option for the quasi-experimental studies, as the focus international school's senior management team asked for the studies to be conducted after school to avoid lesson disruption. To test the research question for Study 1, a younger year group of six and seven year old students in Year 2 were selected. Once recruited, they were divided into two equal numbered groups by random assignment (Creswell, 2008; Shadish, Cook & Campbell, 2002) ensuring all students had an equal chance of being selected into either intervention group (Best & Kahn, 2003; Kantowitz et al., 2001; McBurney & White, 2007; Rudestam & Newton, 2007). Students' names were written on cards, shuffled face down and divided one-by-one into two equal numbered piles. Cohen et al. (2007, p 282) have pointed out that "Often in educational research, it is simply not possible for

investigators to undertake true experiments, e.g. in random assignation of participants to control or experimental groups". Conducting the studies using a quasi-experimental design was considered the most robust and appropriate approach to answer the initial research question in Study 1 and subsequent research questions in Studies 2 and 3. Each of the three studies was divided into two sub-studies (a) and (b). The interventions implemented first were in Studies 1(a), 2(a) and 3(a) and interventions implemented second in Studies 1(b), 2(b) and 3(b)

Quasi-experimental approaches can potentially introduce more internal validity threats (for example, maturation, mortality, diffusion of treatment) than true experiments (Creswell, 2008; Crewsell, 2009; Mertler & Charles, 2008). Pretest-posttest designs may result in the additional threats of history, testing, instrumentation and regression (Creswell, 2008). Internal validity threats can occur when experimental treatments extend over a longer period of time, for example, a semester or year (history) and the experiment loses participants (attrition) (Mertler & Charles, 2008). Internal validity threats considered in the research design were:

a) History and maturation. The school academic year had a potential impact on the scheduling of intervention sessions and history, therefore, was

considered a threat to the validity of the results. Cohen et al. (2007) remarked on reliability and stability issues and the time period in-between test and retest. They emphasised that it should not be too long to avoid situational factors and, indeed, not so short that participants remember the content of the first test when retested. As the intervention sessions were conducted once a week after school, the validity of the test results could be questioned in terms of other learning experiences that both the experimental and control groups were receiving in-between intervention sessions at school and at home in reading activities. To control the experimental and control groups, the following measures were implemented:

1. for the nonfiction sessions: all school library books on the subjects covered in the intervention sessions (e.g. thunderstorms) were withdrawn several weeks in advance before the intervention sessions began and kept in the possession of the researcher. The National Geographic magazines were bought by the researcher and the students had not been exposed to the materials, which were not commercially available.

2. for the fiction sessions: the photocopiable materials were bought by the researcher and it was confirmed by the school's English coordinator that the school had not already purchased the resources. Details of the photocopiable

materials were deleted from the copies given to the students, so the students were unaware of the name of the resources being used. All copies of the fiction text used in the sessions were in the possession of the researcher and the class teachers gave assurance that the students had not been previously exposed to the texts.

b) Mortality/attrition. During the course of the studies, students may have either changed schools or parents chose to withdraw their child at anytime.

c) Diffusion of treatment. It was possible students could discuss session content with each other and as a consequence, influenced test scores.

d) Testing and instrumentation. It was feasible students could become familiar with the testing instruments. The reliability of test-retest has been described in terms of stability of scores between one test administration and the other. That is, when the same test is administered at two different times to the same participants with sufficient time interval, reliable scores will correlate (Creswell, 2008; Gay, Mills & Airasian, 2009).

3.5.2 Interventions. Each student participated in one of the two interventions (nonfiction & fiction). The interventions were implemented using an alternating approach; when one group received their intervention, the other group acted as the control.

The nonfiction sessions were non-narrative text-based and the content and layout of books and magazines were studied. Concept maps and graphic organizers were used by the students to share their ideas. The fiction interventions used narrative texts and materials. The sessions were word-based teaching appropriate lexis and covered a number of themes including synonyms, antonyms and affixes. Students were encouraged to share their prior word knowledge and use dictionaries and thesauruses in the sessions. The younger students in Studies 1 and 2 were reminded how to use them. Sessions were carefully planned to ensure students had sufficient time to discuss prior knowledge and in the session plenaries, to discuss what they had learnt. Additional material on the session themes were prepared in advance and were available for the students to use if required.

3.5.3 Testing instruments.

a*sTTle reading comprehension testing.* In New Zealand, the Ministry of Education worked in conjunction with the University of Auckland to devise and implement the Assessment Tools for Teaching and Learning (asTTle) program, a school-based assessment (SBA) system (Hattie & Brown, 2008). New Zealand has been considered to be a "measurement-free assessment community" (Hattie & Brown, 2010, p 108), but due to psychometric concerns (for example,

identification and controlling for error and imprecision in teacher judgement), the country moved towards classroom testing in recent years, ensuring higher reliability levels in assessment. The assessment of the New Zealand school curriculum can be contrasted to the assessment of the National Curriculum of England and Wales, where students are now primarily assessed using APP (Assessing pupils' progress). Other testing methods to asTTle were considered, including past SATS (Standard Assessment Tests) papers for Key Stage 1 (KS1) of the National Curriculum in England and Wales. These were discounted, however, due to their non-psychometric properties. The asTTle program, in contrast, enables educators to create 40-minute custom-designed, rich norm-referenced, criterion-referenced, standard-based interpreted tests (Hattie, Brown & Keegan, 2003; Hattie & Brown, 2008; Hattie & Brown, 2010).

The content of the asTTle tests could be considered New Zealand-centric, however, the setting for this research was an international school and previously used tests in the school were English. Data from that testing system was not available for the research study. As an international school, parents and staff expect students to be able to read material from any location globally. The school does not follow the Hong Kong curriculum and there is no expectation that the material should be especially situated in Hong

Kong. Hence, the test fitted the ecology of this type of education. The asTTle tests would have had less validity in a Hong Kong school in the local system based on the Hong Kong curriculum, but this was not the case in this study.

The tests included a mixture of narrative and non-narrative items which were deliberately selected in order to detect whether teaching using non-narrative content materials in the nonfiction intervention sessions would have an observable effect on reading comprehension. Hence, it was important that non-narrative texts be in the tests to see if teaching such skills could be detected. Since asTTle does not report scores by type of text it is not possible to determine if such teaching had the desired effect. A future study that used a test which could disentangle scores by text type would be desirable.

A number of topics have been considered pertinent to high quality educational assessment, including: validity, reliability and generalizability; item response theory (IRT); scaling and norming; linking and equating; test fairness and bias; standard setting and test development and construction (Hattie & Brown, 2010). School-based assessment tools should be aligned to the required curriculum requirements of an education system and asTTle is claimed to be calibrated to criteria, norms, standards and progress (Hattie & Brown, 2008). The asTTle assessments for reading utilise 1,600 items within six banks of test

questions. These items were calibrated to the performance of over 90,000 students against achievement objectives of the New Zealand national curriculum statements. The asTTle program is claimed to ensure: a) ethnicity or sex are not discriminated against; b) chance factors do not confound interpretation of student performance; c) students with more ability than less are consistently favoured with regard to items; d) wrong options in selected response items perform appropriately; e) items assess their intended location in the curriculum difficulty spectrum and f) items measure what they are claiming to measure-to ensure this, multiple validity checks are carried out (Hattie & Brown, 2008).

The University of Auckland developed asTTle tests in accordance with the New Zealand National Curriculum levels for reading and writing. One of three Curriculum Levels (2, 3 or 4) could be selected when creating the tests. Curriculum Level 2 equated to Years 2 to 6 (six to 10 year old students) and Curriculum Level 3 to Years 4 to 8 (eight to twelve year old students). Curriculum Level 2 was selected for the tests used in Studies 1 and 2 and Curriculum Level 3 for the tests used in Study 3. Version 3 of the asTTle program was used. An apparent constraint, however, was the inability to select the number of items repeated in each test created. To ensure, therefore,

comparable tests with a minimum number of repeated items were adopted, it was necessary to produce more tests than required.   For Study 1, a total of 25 tests were produced. A review of the items in these tests was undertaken. Four tests were selected so that they contained 15% or less repeated items and thus eliminate the possibility of student practice effects. These tests were randomly assigned as pretests and post tests for Studies 1(a) and 1(b). The same tests were subsequently used in Studies 2(a) and 2(b) and implemented in the same order. All four tests administered can be found in Appendices B to E. For Study 3, a total of 189 tests were created and four were randomly assigned across the time periods. All four tests administered can be found in Appendices F to I. Pretests were administered one week before the first intervention session began and post tests one week after the final intervention session.

The question content count and number of questions according to cognitive processing level (surface or deep) are summarised for the tests administered in Studies 1 and 2 in Table 1 and for Study 3 in Table 2. Surface-level processing is when attention is directed by students to learning the text itself in a reproductive conception of learning, whereas deep-level processing is the pursuit of comprehension, with a focus on the intentional text content (Evans, Kirby & Fabrigar, 2003). Similarly, surface strategies are said

to be useful on a short-term basis for selecting and attending to information, in comparison to deep strategies when there is a need for integrating new information with previous knowledge (Lyke & Kelaher Young, 2006).

Table 1

Question content count and number of questions according to cognitive processing level for the pretests and post tests used in Studies 1 and 2

Question Content	Studies 1(a) and 2(a) pretest (Year 2 asTTle test number 1)	Studies 1(a) and 2(a) post test (Year 2 asTTle test number 2)	Studies 1(b) and 2(b) pretest (Year 2 asTTle test number 3)	Studies 1(b) and 2(b) posttest (Year 2 asTTle test number 4)
Finding information	33	15	32	6
Knowledge	3	22	0	24
Understanding	11	16	19	16
Connections	7	7	1	3
Inference	5	13	5	11
Surface features	0	1	2	10
Surface cognitive processing	22	19	22	20
Deep cognitive processing	13	20	14	12

Pretest and post test measures (cloze tests). The students in Studies 2 and 3 were additionally pretested and post tested using cloze tests developed by the researcher. Measuring two different kinds of reading skills are a legitimate way to evaluate treatment. The asTTle assessments measured different types of

reading skills using fiction content questions (e.g. poetry and short stories) and

nonfiction content questions (e.g. locating information in recipes and

postcards), as well as a mix of closed multiple-choice and open questions. The

cloze tests were, in contrast, explicitly testing vocabulary and were based on

the content of the intervention sessions.

Table 2

*Question content count and number of questions according to cognitive
processing level for the pretests and post tests used in Study 3*

Question Content	Study 3(a) pretest (Year 6 asTTle test number 1)	Study 3(a) posttest (Year 6 asTTle test number 2)	Study 3(b) pretest (Year 6 asTTle test number 3)	Study 3(b) posttest (Year 6 asTTle test number 4)
Finding information	15	20	14	19
Knowledge	8	5	2	8
Understanding	12	30	18	14
Connections	1	3	2	21
Inference	10	17	15	13
Surface features	12	2	11	4
Surface cognitive processing	20	16	16	13
Deep cognitive processing	11	23	18	21

When the intervention was fiction, the content of the test was based on

the fiction text "The Fabulous Food Machine" (MacDonald, 2006) read during

the sessions in Study 2 and "The Brave One" (Bell, 2004) read in Study 3.

When the intervention was nonfiction, the content was based on the nonfiction texts used in the sessions (rubbish, bikes and bones in Study 2 and thunderstorms in Study 3). The cloze fiction and nonfiction tests administered in Study 2 can be found in Appendices J and K respectively and Study 3's cloze fiction and nonfiction tests can be found in Appendices L and M respectively.

Since their introduction in 1953 by Wilson Taylor, cloze tests in their varying formats have been claimed as reliable and objective in the measurement of reading comprehension (Berk, 1979; Bickley, Ellington & Bickley, 1970; Cranney, 1972; Cunningham & Tierney, 1979; Torres & Roig, 2005). The following factors were deliberated when designing the tests. Traditional guidelines have suggested every fifth to tenth (n^{th}) word should be deleted (Henk, 1981; Henk & Helfeldt, 1985) or alternatively total random (TR) deletion patterns can be used (Henk, 1981; Henk & Helfeldt, 1985). The use of dashes or solid lines and the inclusion of initial letter cues (Helfeldt, Henk & Fotos, 1986; Ulusoy, 2008) were also deliberated. With regard to scoring the tests, a further consideration was whether to only allow exact word replacements (Henk, 1981) or acceptable word method (AWM) (Farhady, 1996) particularly for the L2 English students. These scoring methods have been synonymously termed "exact-word scoring" and "acceptable word scoring"

(Brown, 2002) and as "strict scoring regime" and "conceptual regime" (O'Toole & Ryan, 2011). AWM scores are potentially higher than EWM, but it has been claimed such scoring is more subjective and difficult to apply, particularly for English as a foreign language (EFL) students and, therefore, when scoring EFL students in cloze test situations, EWM should be adopted and AWM where native speakers are available (Farhady, 1996). Although the majority of the students were L2 English learners, it was decided to adopt AWM, as the students had all been educated in EMI international education for an average of three years and could be considered native-like in their English proficiency. Explicitly taught words in the intervention sessions were deleted in the tests. Initial letter cues were given and solid lines of equal length were chosen in the design. The cloze tests were piloted with students of similar age to determine their appropriateness. Alterations were made as appropriate.

3.5.4 Study 1 with Year 2 students.

Participants. There were 20 parents of Year 2 students (age $M = 6$ years, 7 months, $SD = 0.45$) who gave written permission for their child to participate in the study. The numbers of participating students in Study 1 were girls ($n=10$) and boys ($n=10$). The students were randomly assigned to one of the two intervention groups.

Tables 3 and 4 detail the languages communicated by the students at home with their parents. Data were obtained from two sources: student school admission records and the student questionnaire. When their child enrolled at the school, parents indicated the language that they considered to be their child's L1. It was found, however, that the data were misleading. The student questionnaire, therefore, administered after the quasi-experimental studies were completed asked the students to indicate the language they communicated in at home with their parents. Their responses were checked against the school admission records, but the questionnaire response was chosen overall. Percentages of the groups were calculated dividing the number of students speaking each language by the total number of students in each intervention group.

For the fiction group, Cantonese was the most common language of communication for six of the students in this group (60%) and English the second most common language by two students (20%). One student in this group communicates in Cantonese and English (10%) and one student communicates in German (10%). For the nonfiction group, Cantonese and English were similar to the vocabulary (fiction) group as the most and second most common languages used for communication by 50% (six students) and

20% (two students) respectively. German, Mandarin and Spanish were each used by one student (10% each).

Table 3

Language(s) that the participating students in the fiction group in Study 1 communicate in at home with their parents with percentages of the group

Language(s) students communicate in at home with parents	Students	Percentage of the group
Cantonese	1-8; 1-10; 1-13; 1-14; 1-15	50%
English	1-2; 1-7	20%
German	1-17	10%
Mandarin	1-9	10%
Spanish	1-3	10%

Table 4

Language(s) that the participating students in the nonfiction group in Study 1
communicate in at home with their parents, with percentages of the group

Language(s) students communicate in at home with parents	Students	Percentage of the group
Cantonese	1-4; 1-6; 1-12; 1-16; 1-19; 1-20	60%
Cantonese and English	1-5	10%
English	1-1; 1-18	20%
Mandarin	1-9	10%
German	1-11	10%

Procedures. In Study 1(a), the students in both intervention groups were
pretested on their reading comprehension using an asTTle test. The students in
the nonfiction group received their intervention consisting of five x 60 minute
teaching sessions after school. During this time, the fiction group acted as
control and did not attend any teaching sessions. Once the teaching sessions

were completed, the students in both groups were post tested using a different asTTle test.

In Study 1(b), the students in both intervention groups were again pretested using a third asTTle test and subsequently in the alternating treatment design, the fiction group received their intervention of five x 60 minute teaching sessions after school, whilst the nonfiction group became the control. Once the teaching sessions were completed, the students in both intervention groups were post tested for the final time using a fourth asTTle test. It was necessary for this post test to be administered during school lesson time due to timetabling constraints. The students' parents, school senior management team and two class teachers gave permission for this to happen.

Figures 2 and 3 explain the study outlines of Studies 1(a) and 1(b) respectively in the form of flow charts.

The design of Studies 1(a) and 1(b) are diagrammed in Table 5 using a notational system (Campbell & Stanley, 1963; Cook & Campbell, 1979) where G represents the two studies; O the sequential testing/measurement; X the experimental treatments for nonfiction (NF) and fiction (F) and C the control.

Study 1(a)

After Chinese New Year 2011 (February 2011)

Students were randomly selected into two intervention groups

fiction or nonfiction

All students pretested on their reading comprehension

(Year 2 asTTle test number 1)

The nonfiction group participated in five intervention sessions between Chinese New Year and Easter 2011

(February to April)

The fiction group acted as the control

April 2011

All students post tested on their reading comprehension

(Year 2 asTTle test number 2)

Figure 2. Flow chart representing the outline of Study 1(a).

Study 1(b)

> **After Easter 2011**
>
> All students pretested on their reading comprehension
>
> (Year 2 asTTle test number 3)

> The fiction group participated in five intervention sessions between April and June 2011

> The nonfiction group acted as the control

> **June 2011**
>
> All students post tested on their reading comprehension
>
> (Year 2 asTTle test number 4)
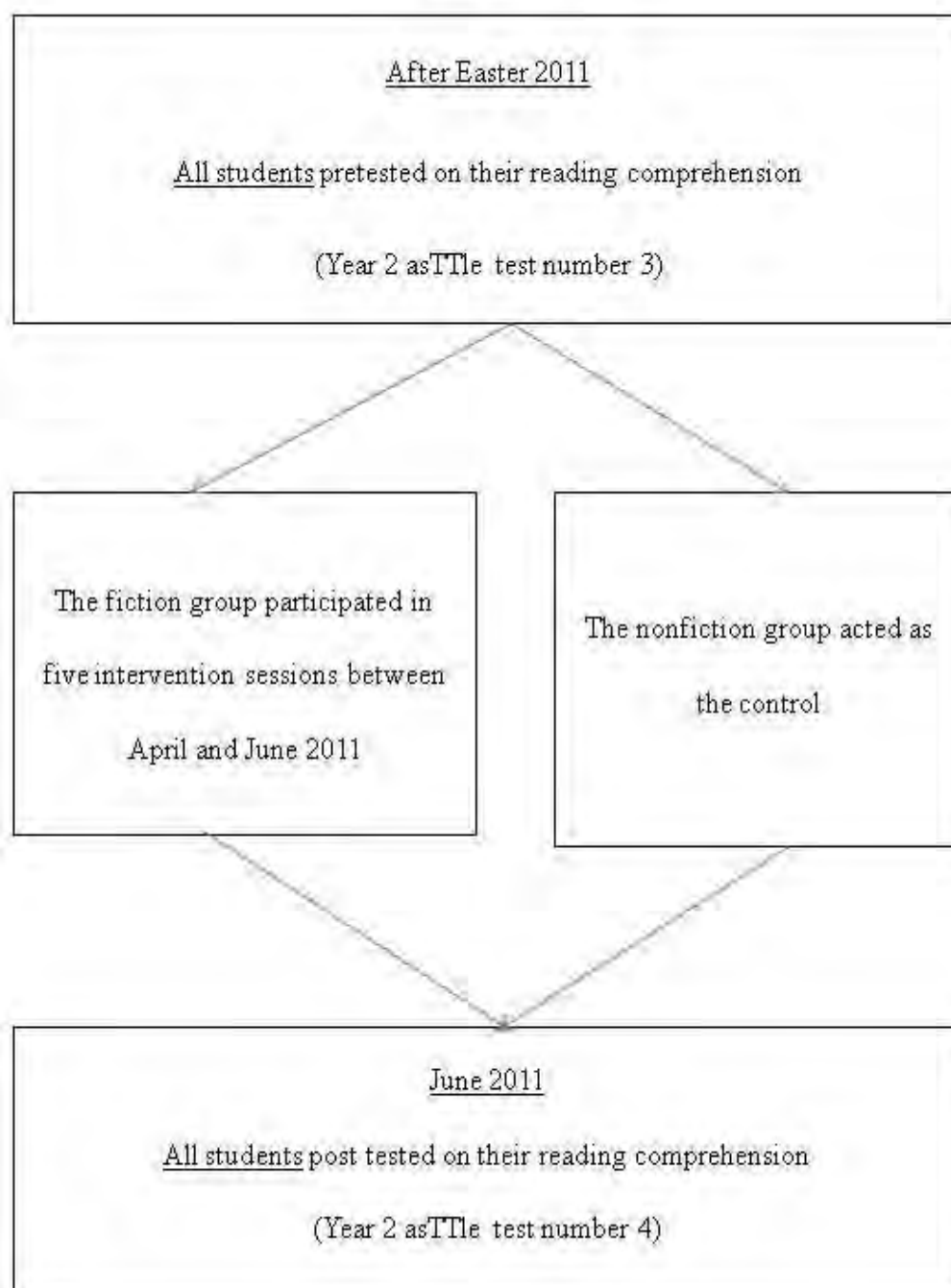
Figure 3. Flow chart representing the outline of Study 1(b).

Table 5

Notational system representing Studies 1(a) and 1(b)

Time	February 2011	February-March 2011	April 2011	May 2011	May-June 2011	June 2011
G1(a)	O_1	XNF	O_2	O_3	C	O_4

G1(b)	O_1	C	O_2	O_3	XF	O_4

Note. The dashed line that separates the two parallel rows indicates that the two intervention groups were not equated by randomization, therefore, the term 'non-equivalent' is applied to this study (Cohen et al. 2007).

Interventions and materials used.

Study 1(a): Nonfiction intervention sessions. The nonfiction intervention sessions primarily used two issues of the National Geographic Young Explorer series (Mahler, 2010c, 2010d). The National Geographic series are available as interactive whiteboard (IWB) resources and were used within the sessions. The students had their own printed copy of the magazine to refer to. Information trade books were also used from the school library, as well as photographs, taken from the Internet to supplement and provide additional exposure on the themes of the sessions. The specific themes chosen were: Ecology; Pedal Power and Bones.

The structure of the sessions was based on the work of Hall and Sabey (2007); Kletzien and Dreher (2004); Read (2005) and Williams et al. (2005). In each session, the layout of informational text books (contents page, glossary,

index, headings, and sub-headings) was discussed (Kletzien & Dreher, 2004). In order to compare and contrast the skeletal structures of humans and other animals, graphic organizers (matrixes) were introduced to the students and used (Hall & Sabey, 2007; Williams et al., 2005). In the penultimate and final sessions, the students were asked to choose one of the three session themes and design/write their own informational text book (Read, 2005). The students were reminded of layout and were encouraged to use the information trade books, photographs and Internet resources (for example, Google images) to select images to use in their work. In each session, on-going formative assessments were made and when required, individual students were given individual additional support or by working as a pair.

Session 1: "Ecology". The National Geographic article (Mahler, 2010c) was read together and the students were asked questions to ascertain their prior knowledge on the theme. The students were asked questions about the layout of information books; many knew about the contents page, index page and glossary. They were given a selection of information books on recycling to look at and were asked questions about recycling in their own homes. The session concluded using an activity sheet in which objects needed to be sorted into two groups on the basis of   whether they could be recycled or not.

Session 2: "Pedal Power". The National Geographic article (Mahler, 2010c) was read together on the IWB which was stimulating for the students and gave maximum opportunity for them to be engaged with the text. Afterwards, they were given their own printed copy of the article to refer to. The students were asked if they had their own bike and if they enjoyed riding it. They were given an activity worksheet and asked to label parts of a bike they knew to ascertain their prior knowledge. The article also looked at different designs of bikes and discussion followed how designs have changed over the years. The students were asked to work with a partner, looking at the information books for additional information on the key words in the text (forces, pedals, pulleys and wheels). The students were asked reminder questions about the layout of the information books, such as the contents and index pages to assist in locating information. The session concluded sharing their thoughts on new knowledge learnt.

Session 3: "Bones". Before reading the National Geographic article (Mahler, 2010d) the students were asked questions on the human body skeletal structure to ascertain prior knowledge. Each student had their own copy of the article which was used in a shared reading experience. They were subsequently asked questions. The students were shown a graphic organizer on the IWB and

were told how it could be used to compare and contrast. Using their own organizer, they were asked to think of the three animals described in the article (fish, dogs and snakes) and compare/contrast their bone structure/skeletons to humans. Information books and photographs of the four different bone structures/skeletons were also provided. Their ideas were shared in the plenary.

Session 4 recapped on the issues discussed in the previous three sessions. The students were instructed on the task for the next two sessions: to choose one of the three themes that most interested them and design their own information book. They were asked to consider the layout of information books (for example, contents, glossary and index) and the actual content. They were encouraged to search for information on Internet websites and use the National Geographic magazines and other nonfiction books for additional information content.

Session 5 was a continuation of the previous session. Students were reminded of the importance of the layout of their books. Their designs were shared at the end of the session.

Study 1(b): Fiction intervention sessions. Synonyms (adjectives and verbs), antonyms, compound words, affixes (prefixes and suffixes) and word families were selected as the themes for the five teaching sessions based on the work of

Blachowicz and Fisher (2002) and Diamond and Gutlohn (2006), in which lesson activities and strategies for specific word-learning instruction, morphemic and contextual analysis were described. The sessions primarily used photocopiable resources from the Scholastic Literacy Skills Vocabulary Years 1-2 programme (Bennett, 2010) to support the explicit teaching of selected targeted words. Target words were pre-selected according to the content of the photocopiable resources or for the word card games played in the session. In addition, the British National Corpus List was used to create word families for targeted base words. To provide multiple opportunities for consolidation, repeated exposures of the targeted words were provided. Student prior knowledge was assessed using brainstorming and learnt knowledge assessed in the lesson. For differentiation, students were given individual support as required or they worked as a pair to support each other with their ideas.

To contextualise the five chosen themes, the storybook "The Fabulous Food Machine" (MacDonald, 2006) which was unfamiliar to the students was also read.

Session 1: "Synonyms". Synonyms were brainstormed to ascertain the students' prior knowledge and understanding. They were also questioned on their understanding of how to use a thesaurus. Initially, the students were asked

to think of synonyms for a variety of words and subsequently use a thesaurus to check or find additional words. Word cards were also given to the students to sort into pairs of synonyms (for example, oily and greasy).

Session 2: "Antonyms". The session initially continued with the theme of synonyms. The first two chapters of the chosen storybook were read and afterwards, each student was given a semantic map and asked to think of synonyms for the word "wonderful" (one word that appeared in the text). For copy of the semantic map, see Appendix N. Discussion followed to determine which words they chose and if there were any similarities and differences in their thoughts. Once this activity on synonyms was complete, the term "antonym" was introduced to the students. A number of words were written on the whiteboard and the students were asked to think of words which meant the opposite. Afterwards, they were given activity worksheets (Bennett, 2010) to complete on antonyms and discussion followed.

Session 3: "Compound words". The session began with a brief recap on the previous two sessions on synonyms and antonyms. Afterwards, the students were asked for their thoughts on compound words, which were written on the whiteboard. The next chapter of the storybook was read and the students were asked to identify as many compound words as possible. These words were

written on the whiteboard for clarification.

Session 4: "Prefixes and suffixes". The students were asked to think in pairs of words they already knew with the un- prefix. Their thoughts were written on the whiteboard. The students were also asked if they had any thoughts what the un- prefix means and one student answered 'not'. Afterwards, the students completed an activity sheet (Bennett, 2010) based on this prefix and their answers were discussed in the plenary.

Session 5: "Word families". To increase frequency, words from previous sessions were chosen as base/root words and printed on cards. The students were asked to choose a card and using semantic maps, write down words they thought might belong to their word family. The students were given dictionaries to check how many words were correct and to see if there were others they could have chosen. Time allowing, a new base/root word was chosen. The generated words were discussed using knowledge gained from previous sessions on suffixes and compound words. For example, many students added derived forms using suffixes (for example, -ful and –y) and compound words such as 'lighthouse' when the base/root word was 'light'. The students were given approximately 30 minutes to complete the activity.

3.5.5 Study 2 with Year 2 students.

Participants. There were 16 parents of Year 2 students (age M = 6 years, 4 months, SD = 0.29) who gave written permission for their child to participate in the study. The letter sent to parents can be found in Appendix O. Three students, however, withdrew during the course of the study. Two parents considered the study too much extra work for their child to cope with after school and one student and his family relocated outside Hong Kong. The final numbers of participating students for the duration of Study 2 were girls (n=6) and boys (n=7). The students were randomly assigned to one of the two intervention groups.

Tables 6 and 7 detail the languages communicated by the students at home with their parents. Data on languages were collected similarly to Study 2. For the fiction group, English was the most common language of communication for three students (42.9%). Cantonese, Dutch, Mandarin and Spanish were each used by one student (14.3% each). For the nonfiction group, Cantonese was the most common language of communication for three students (50%); English was used by two students (33.3%) and Mandarin by one student (16.7%).

Table 6

Language(s) that the participating students in the fiction group in Study 2 communicate in at home with their parents, with percentages of the group

Language(s) students communicate in at home with parents	Students	Percentage of the group
Cantonese	2-6	14.3%
Dutch	2-13	14.3%
English	2-4; 2-7; 2-10	42.9%
Mandarin	2-8	14.3%
Spanish	2-5	14.3%

Note. Percentages rounded to 1 decimal place (total equalling 100.1%).

Table 7

Language(s) that the participating students in the nonfiction group Study 2 communicate in at home with their parents, with percentages of the group

Language(s) students communicate in at home with parents	Students	Percentage of the group
Cantonese	2-2; 2-11; 2-12	50.0%
English	2-1; 2-3	33.3%
Mandarin	2-9	16.7%

Note. Percentages rounded to 1 decimal place (total equalling 100.0%).

Procedures. The interventions applied in Study 1 were repeated as Study 2 with Year 2s from the following academic year cohort and implemented in reverse order (fiction group first, nonfiction group second) to ascertain if intervention order had any effect on reading comprehension.

The intervention sessions (5 x 60 minutes) and testing in Study 2 were conducted on Mondays after school. In order for the studies to be completed during the academic year and for pretesting, intervention sessions and post testing to be conducted consecutively in a seven week block, it was necessary for Study 2(a) to be scheduled between October and December 2011 and for Study 2(b) to be scheduled between February and April 2012. Studies 2(a) and

2(b) are shown as flow charts in Figures 4 and 5 respectively.

The design of Studies 2(a) and 2(b) are diagrammed in Table 8 using a notational system (Campbell & Stanley, 1963; Cook & Campbell, 1979) where G represents the two studies; O the sequential testing/measurement; X the experimental treatments for nonfiction (NF) and fiction (F) and C the control.

Table 8

Notational system representing Studies 2(a) and 2(b)

Time	October 2011	October-November 2011	December 2011	February 2012	February-April 2012	April 2012
G1(a)	O_1	XF	O_2	O_3	C	O_4
----	----	----	----	----	----	----
G1(b)	O_1	C	O_2	O_3	XNF	O_4

Note. The dashed line that separates the two parallel rows indicates that the two intervention groups were not equated by randomization, therefore, the term 'non-equivalent' is applied to this study (Cohen et al. 2007).

Interventions and materials used. The teaching session plans and materials used in the Study 1's intervention sessions were also used in Study 2.

Study 2(a)

After October half-term 2011

Students were randomly selected into two intervention groups

fiction and nonfiction

All students pretested on their reading comprehension

(Year 2 asTTle test number 1 and Year 2 cloze fiction test number 1)

The fiction group participated in five after school teaching sessions between October and December 2011

The nonfiction group acted as the control

December 2011

All students post tested on their reading comprehension

(Year 2 asTTle test number 2 and Year 2 cloze fiction test number 1)

Figure 4. Flow chart representing the outline of Study 2(a).

Study 2(b)

After Chinese New Year 2012

All students pretested on their reading comprehension

(Year 2 asTTle test number 3 and Year 2 cloze nonfiction test number 1)

The nonfiction group participated in five after school intervention sessions between February and March 2012

The fiction group acted as the control

Before the Easter Holidays 2012

All students post tested on their reading comprehension

(Year 2 asTTle test number 4 and Year 2 cloze nonfiction test number 1)

Figure 5. Flow chart representing the outline of Study 2(b).

3.5.6 Study 3 with Year 6 students.

Participants. There were 21 parents of Year 6 students (age M = 10 years, 3 months, SD = 0.50) who gave written permission for their child to participate in the study. One student, however, withdrew during the course of the study, due to relocation outside Hong Kong. The final numbers of participating students for the duration of Study 3 were girls (n=12) and boys (n=8). The students were randomly assigned to one of the two intervention groups. The letter sent to parents can be found in Appendix P.

Tables 9 and 10 detail the languages communicated by the students at home with their parents. Data on languages were collected similarly to the other studies. For the fiction group, Cantonese was the most common language of communication for eight of the students at home (88.9%) and English the second most common language (11.1%; one student). For the nonfiction group, Cantonese and English were each used by four of the students in this group (36.4% each language). Cantonese and Mandarin were used by one student at home (9.1%); Dutch by one student (9.1%) and both English and Mandarin by one student (9.1%).

Procedures. To examine intervention effect with older students, an intervention programme was designed by the researcher with appropriate material and

implemented in the same order as Study 2, fiction group first and nonfiction group second. The intervention sessions (5 x 60 minutes) and testing for Study 3 were conducted on Fridays after school. In order for the studies to be completed during the academic year and for the pretesting, intervention sessions and post testing to be conducted consecutively in a seven week block, it was necessary for Study 3(a) to be scheduled between October and December 2011 and for Study 3(b) between February and April 2012. Studies 3(a) and 3(b) are shown as a flow chart in Figures 6 and 7 respectively.

Table 9

Language(s) the participating students in the fiction group in Studies 3(a) and 3(b) communicate in at home with their parents, with percentages of the group

Language(s) students communicate in at home with parents	Students	Percentage of the group
Cantonese	3-3; 3-5; 3-11; 3-12; 3-13; 3-15; 3-17; 3-19	88.9%
English	3-10	11.1%

Note. Percentages rounded to 1 decimal place (total equalling 100.0%).

The design of Studies 3(a) and 3(b) are diagrammed in Table 11 using a notational system (Campbell & Stanley, 1963; Cook & Campbell, 1979) where G represents the two studies; O the sequential testing/measurement; X the

experimental treatments for nonfiction (NF) and fiction (F) and C the control.

Table 10

Language(s) the participating students in the nonfiction group in Studies 3(a)
and 3(b) communicate in at home with their parents, with percentages of the
group

Language(s) students communicate in at home with parents	Students	Percentage of the group
Cantonese	3-1; 3-4; 3-6; 3-9	36.4%
Cantonese and Mandarin	3-8	9.1%
Dutch	3-14	9.1%
English	3-2; 3-16; 3-18; 3-19	36.4%
English and Mandarin	3-7	9.1%

Note. Percentages rounded to 1 decimal place (total equalling 100.1%).

Table 11

Notational system representing Studies 3(a) and 3(b)

Time	October 2011	October–November 2011	December 2011	February 2012	February–April 2012	April 2012
G1(a)	O_1	XF	O_2	O_3	C	O_4
G1(b)	O_1	C	O_2	O_3	XNF	O_4

Note. The dashed line that separates the two parallel rows indicates that the two intervention groups were not equated by randomization. Therefore, the term 'non-equivalent' is applied to this study (Cohen et al., 2007).

Interventions and materials used.

Study 3(a): Fiction intervention sessions. Synonyms (adjectives and verbs), antonyms, spoonerisms and palindromes, affixes (prefixes and suffixes) and nonsense words were selected as the themes for the five teaching sessions in Study 3(a). The sessions were also based on the work of Blachowicz and Fisher (2002) and Diamond and Gutlohn (2006). The five sessions primarily used photocopiable resources from the Scholastic Literacy Skills Vocabulary Year 6 programme (Howell, 2010). Words were either selected according to the content of the photocopiable resources. The storybook "The Brave One" (Bell, 2004), which was unfamiliar to the students was read to support the explicit teaching of selected targeted words and provide multiple exposure for students to consolidate their understanding of synonyms.

Study 3(a)

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┌─────────────────────────────────────────────────────────────┐
│                   After October half-term 2011               │
│                                                               │
│    Year 6 students randomly selected into two intervention    │
│                   groups fiction or nonfiction                │
│                                                               │
│       All students pretested on their reading comprehension   │
│                                                               │
│   (Year 6 asTTle test number 1 and Year 6 cloze fiction       │
│                         test number 1)                        │
└─────────────────────────────────────────────────────────────┘
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┌──────────────────────────────┐   ┌──────────────────────────────┐
│ The fiction group            │   │ The nonfiction group acted as │
│ participated in five         │   │          the control          │
│ after school teaching        │   │                               │
│ sessions                     │   │                               │
│ between October and December │   │                               │
│ 2011                         │   │                               │
└──────────────────────────────┘   └──────────────────────────────┘
```

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┌─────────────────────────────────────────────────────────────┐
│                        December 2011                          │
│                                                               │
│   All students post tested on their reading comprehension     │
│                                                               │
│   (Year 6 asTTle test number 2 and Year 6 cloze fiction       │
│                         test number 1)                        │
└─────────────────────────────────────────────────────────────┘
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Figure 6. Flow chart representing the outline of Study 3(a).

Study 3(b)

After Chinese New Year 2012

All students pretested on their reading comprehension

(Year 6 asTTle test number 3 and Year 6 cloze nonfiction test number 1)

The nonfiction group participated in five after school intervention sessions between February and March 2012

The fiction group acted as the control

Before the Easter Holidays 2012

All students post tested on their reading comprehension

(Year 6 asTTle test number 4 and Year 6 cloze nonfiction test number 1)

Figure 7. Flow chart representing the outline of Study 3(b).

Session 1: "Synonyms". The students were asked what they knew about synonyms and were asked to individually complete two worksheets ("Notes in Class" and "Character Descriptions") (Howell, 2010). The students shared their ideas on synonyms for 'wrote' and which adjectives they chose to describe the characters in each text. The first few chapters of the chosen storybook were read.

Session 2: "Antonyms". The previous week's session on synonyms was briefly recapped for consolidation. The students were asked if they have heard of antonyms and if so, what they are. They were then asked to individually complete the worksheet "My friend is…." (Howell, 2010) and to share their ideas. The storybook was continued to be read.

Session 3: "Spoonerisms and Palindromes". The previous week's work on antonyms was briefly recapped for consolidation. The students were asked if they had heard of spoonerisms and palindromes. Spoonerisms were defined as words whose initial sounds of words are muddled up and that palindromes are words, phrases or sentences that read the same forwards and backwards. The students were asked to individually complete the two worksheets "Spoonerisms" and "Palindromes" (Howell, 2010) and shared their ideas afterwards. The storybook was completed.

Session 4: "Synonyms, prefixes and suffixes". The students were given a copy of the storybook and a worksheet that listed words from the text. They were given a thesaurus and the option of working individually or as a pair, to find synonyms for the chosen words. The students were encouraged to re-read the sentence with the synonym to ensure it made sense. Their ideas were subsequently shared. In the second half of the session, the students were asked what they knew about prefixes and suffixes and to write down any that they knew and to share their thoughts. Their thoughts were reviewed and discussed.

Session 5: "Nonsense words". The students were informed that we would be thinking about nonsense words. They were asked to think of any subject matter they were particularly interested in and to think of a word and a definition that was totally ridiculous. There was some initial discussion as to how nonsense words can be compiled, such as by changing initial sounds of existing words, changing prefixes and/or suffixes, thus building on the content of previous sessions. The students were given two worksheets ("Imagine" and "The Amazing Sprandlefoose") (Howell, 2010). The activity worksheets were reviewed and discussed. To conclude, the five sessions were recapped and what we have discussed/looked at over the weeks.

Study 3(b): Nonfiction sessions. The nonfiction sessions in Study 3(b)

primarily used two issues of the National Geographic Extreme Explorer series (Mahler, 2010a, 2010b). The National Geographic series were available as IWB resources and used in the sessions. The students also had their own printed copy of the magazines to refer to. Information trade books were used from the school library, as well as photographs, taken from the Internet to supplement and provide additional exposure on the themes of the sessions.

The five sessions covered the themes of storms (including thunderstorms and tornadoes); super slugs (slugs and sea slugs) and glass blowing. As with the nonfiction intervention sessions in Studies 1(a) and 2(b), Study 3(b)'s sessions were also based on the work of and Hall and Sabey (2007); Kletzien and Dreher (2004); Read (2005) and Williams et al., (2005). In each session, the layout of informational text books (contents page, glossary, index, headings, and sub-headings) was discussed (Kletzien & Dreher, 2004). During the sessions, the students recorded their ideas using a variety of strategies including concept webs and graphic organizers (matrixes) (Hall & Sabey, 2007; Williams et al., 2005). In the penultimate and final sessions, the students were asked to choose one of the three session themes and design/write their own informational text book (Read, 2005). The students were reminded of layout and encouraged to use the information trade books, photographs and Internet

resources (for example, Google images) to select images to use in their work.

Session 1: "Storm Warming". The session primarily used National Geographic Extreme Explorer (April 2010) (Mahler, 2010a) magazines and other information trade books on tornadoes, storms, etc were available for reference/research purposes. MacBook's were also available for the students to research. Concept web/map sheets were used to ascertain: "What did the students already know about storms?" Afterwards, they shared their ideas with a partner and then as a group. Shared reading of the whole article followed. The students summarised the main points from the article on a concept/brainstorm web/map: "What had they learnt about tornadoes?" Using other information books and the Internet to look up information was the next task. The students were asked to identify the main features of information books. Discussion followed on headings, sub-headings, contents page, glossary and index. As a summary, a National Geographic Extreme Explorer (April 2010) (Mahler, 2010a) comprehension check sheet was used for consolidation of the ideas covered in the session.

Session 2: "Super Slugs". The session primarily used National Geographic Extreme Explorer (April 2010) magazines (Mahler, 2010a). MacBook's were used for the students to research on. There was an assessment

of student prior knowledge: "What did they already know about slugs and sea slugs?" The words gills, rhinophores, cerata, photosynthesis were written on the board highlighted in the text. Had they heard of any of these words before? If so, what do they think they meant? Texts were given out for shared reading: National Geographic's Extreme Explorer (April 2010) (Mahler, 2010a) article "Super Slugs". The glossary (Wordwise) was looked at to locate definitions of the terms/vocabulary. What had they learnt about nudibranchs (pronounced nu-deh-branks)? The students were asked to write their ideas down on a concept map/web and shared their ideas afterwards. As a plenary, a National Geographic Extreme Explorer (April 2010) (Mahler, 2010a) comprehension check sheet was used.

Session 3: "Cooking with Glass". The session primarily used National Geographic Extreme Explorer (May 2010) magazines (Mahler 2010b). A video on YouTube was observed on the interactive whiteboard on glass blowing (http://www.youtube.com/watch?v=4-KPgjZ_3Ww&NR=1). The students were asked if they had learnt anything surprising about glass. The words physics, state of matter, solid, liquid, atoms were written on the whiteboard and the students asked if they knew the meanings of any of the words. Their ideas were discussed. The students were asked to read the headline and questions on the

initial pages of the article and look at the photograph and asked what they thought the article could be about/cover. The writers were comparing making glass to cooking. The students were asked why the authors might be making this comparison. Shared reading followed of the National Geographic's Extreme Explorer (May 2010) article "Cooking with Glass". It was explained that the story was rather like a recipe and the aim was to allow us to try and understand the process of making glass step-by-step. The glossary (Wordwise) was looked at for the meanings of the words. Using the worksheet "Cooking with Glass", the students were asked to imagine they were a glassblower and describe what ingredients they would need and the procedure. As a plenary, their ideas were shared using a National Geographic Extreme Explorer (May 2010) comprehension check sheet.

Session 4 recapped on issues discussed during the previous three sessions. What could the students remember? They were asked to write down any key ideas under the column headings: "Storms", "Nudibranchs" and "Glassblowing". The students were informed that the session aim was to choose one of the three themes that most interested them and that over the next two sessions to individually design their own information book/leaflet/poster. They could use the Internet to print out photos and search information and use other

information books on the subjects. They were asked to consider the design of their booklet/leaflet/poster and the title, headings, contents, glossary and index depending upon what they choose to use.

Session 5 briefly recapped on the previous session to remind them of their task. Their information books were shared at the end of the session.

3.6 Stage 2: Student questionnaire

The questionnaire (see Appendix Q) was given to the students after the post tests for Studies 2(b) and 3(b) were completed. The students were asked to complete it at home. An accompanying letter was given to parents to explain its purpose (see Appendix R).

3.6.1 Research Questions. The research questions underpinning the questionnaire were:

1. Are there similarities between year groups with regard to their enjoyment in reading in English?

2. Are there similarities between year groups with regard to book genre enjoyed the most?

3. Are there differences in the experiences of English learners when learning new vocabulary?

4. Are there similarities in the vocabulary learning strategies used between the year groups?

5. Are there any similarities between year groups on the importance of learning English?

6. What are the student opinions of the intervention sessions?

3.6.2 Participants. After all the studies were completed the students still attending the school (*n*=46) were given the questionnaire and asked to complete at home. Seven of the students who participated in Study 1 were no longer attending the school. These were: students 2-6; 2-8; 2-11; 2-12; 2-17; 2-19 and 2-20.

3.6.3 Questions. In the opening paragraph, it was explained in simpler language for all the students to understand, the reasoning for the questionnaire, namely "These questions are for me to find out some more about your learning of English." The students (and parents) were also reassured that answers would remain confidential and how many pages there were, "I will not tell anyone else what you have said. There are four pages altogether." A letter to parents was attached to each questionnaire to provide them with information (Flick, 2011). It explained the reasoning for the questionnaire and asked for their help in reading the questions to their child, but allowing them to answer in their own

words. A date was given to return it by to school to either the researcher or their child's class teacher. Parents were also reminded that if they had any questions, to feel free to ask in person or by email.

The questions were based on the Vocabulary Learning Strategies Questionnaire used in Fan (2003) and the work of Ma and Kelly (2009). The aims of the questionnaire were to gain an informed insight into the students' perception of their English comprehension and their thoughts with regard to the intervention sessions they participated in. Care was taken in the layout and design, with the aim of making it attractive (smiley faces, for example, were used) and easy for the students to read (Dörnyei, 2003; Olsen, 2012).

There was a mix of open and closed questions (Cohen et al., 2007; Dörnyei, 2003). Cohen et al. (2007, pp. 321-22) have commented, "Highly structured, closed questions are useful in that they can generate frequencies of response amenable to statistical treatment and analysis….Open questions enable participants to write a free account in their own terms, to explain and qualify their responses and avoid the limitations of pre-set categories of response. On the other hand, open questions can lead to irrelevant and redundant information." Scoping questionnaires are described as having qualitative and quantitative questions (Greener, 2011, p 41); open-ended

responses "avoid researchers opposing their ideas unnecessarily upon the instrument". Dörnyei (2003) and Greener (2011) have similarly remarked on the advantages of closed-ended questions as no subjectivity/ambiguity; allowing for straightforward coding and tabulation of the responses. Greener (2011) further remarked that closed-ended questions can be interpreted far easier.

Many questions required the most appropriate answer to be ticked. These were considered to be closed-ended questions; if their most appropriate answer was not given, 'other (please specify)' was included, considered to be an open-ended question (Balnaves & Caputi, 2001). All of the closed (yes/no) questions had an additional open-ended question for elaboration of their answer. Open-ended question responses require coding for themes or categories for subsequent statistical analyses. Olsen (2012, p 46) described coding as "making a database of connections between various terms and data items selected from among the whole basket of evidence". The terms 'concepts', 'codes' and 'categories' are said to mean the same or similar things (Birks & Mills, 2011, p 89). Grounded theory consists of open coding (examination of the text to for salient categories); axial coding (exploration of the interrelationship of categories) and selective coding (building a story connecting the stories

(Bernard & Ryan, 2010; Creswell, 1998; Strauss & Corbin, 1990). Strauss and Corbin (1990, p 63) commented, "…concepts are the basic units of analysis in the grounded theory method. One can count "raw data", but one can't relate or talk about them easily. Therefore, conceptualizing our data becomes the first step in analysis".

 3.6.4 Validity and reliability. Questionnaires of this type raise validity and reliability issues. These concern how far respondents can be said to complete correctly with accuracy and honesty (Cohen et al., 2007 p 157). Intensive interviews can be used to check the accuracy of questionnaire responses through "twelve principal tactics that include familiarization, temporal reconstruction, probing and challenging" (Cohen et al., 2007 p 157). The question type will also affect the outcome. It has been argued that open questions, which are skillfully composed, "are high on validity because they get comprehensive answers in respondents' own words, but are lower in reliability because different interviewers might get different answers" (Guthrie, 2010 p 130). In contrast, closed questions were considered by Guthrie (2010 p 131) to be "less valid than open-ended questions because the choices might be restrictive, however, they are more reliable because the form of the question and answers is set, so research is more replicable. To increase validity, fixed choice

response scales often include the category 'other' and add open-ended probe questions seeking further explanation, often with a simple 'why'". Cohen et al. (2007) also cite the work of Hudson and Miller (1997) on response rates and strategies that can be used to maximise. Such strategies included: stressing the importance and benefits of the questionnaire and following up questionnaires with a personal telephone call and providing encouragement to participate by a third party. These or similar strategies were executed when the questionnaire was given out to the students in this reported thesis. A covering letter was sent to parents detailing the aims of the questionnaire, completion dates and so forth (see Appendix R). In addition, class teachers were asked for their assistance in reminding the students if they could kindly complete the questionnaire. Additional copies of the questionnaires were given out to the students who had mislaid their original copy. As a result, the response rate was 100%.

This chapter detailed the three quasi-experimental studies and questionnaire administered to the students. The focus school for this research, the recruitment of students and the rationale for adopting a quasi-experimental research design and possible internal validity and data reliability issues were discussed. The interventions, including lesson plans for the teaching sessions and reasons for choosing the testing instruments that were used were explained.

Chapter Four reports on the results obtained from the asTTle and cloze reading comprehension tests administered, as well as the student questionnaire responses. The data are reported in answer to the thesis research questions.

RESULTS

This chapter reports on the quantitative data obtained from the asTTle reading comprehension tests administered in Studies 1, 2 and 3, and cloze reading comprehension tests administered in Studies 2 and 3 in response to the research questions. Responses from the student questionnaire are also reported.

4.1 Quasi-experimental studies' results, data analyses and discussions

4.1.1 asTTle test results (Studies 1, 2 and 3).

Research Question 1: Do the interventions of teaching vocabulary and comprehension using either nonfiction or fiction texts improve the reading comprehension of six and seven year old students in Hong Kong?

The aim of this research question was to ascertain whether either or both of the interventions had a positive effect on student reading comprehension. The asTTle test results were analysed for differences in mean scores for the two intervention groups at the start and the end of the study, as well before and after they received their intervention.

For Studies 1(a) and 1(b) the students were randomly allocated to two

intervention groups (nonfiction & fiction). To ensure the cohorts were comparable, one-way ANOVA was conducted prior to commencing the analyses. The results of this ANOVA indicated no significant differences between the cohorts $F(1,18) = 1.153$, $p = 0.297$. Due to the wide range of ability levels indicated by test scores on asTTle ranging from 214 to 446 at O_1, only students whose results were available for all four assessment times are reported in the following analyses, i.e. nonfiction ($n=7$), fiction ($n=7$).

Repeated measures analyses were conducted to identify any differences for intervention (nonfiction, fiction) by time (O_1, O_2, O_3 & O_4). A one-between (intervention)-one-within (time) subjects ANOVA was employed on the dependent variable of asTTle.

In the tests of within-subjects effects for time, Greenhouse-Geisser p-values indicated significant differences $F(3,36) = 3.812$, $p = .030$. The null hypothesis was, thus, rejected indicating that at least one of the four time occasions was different from the others. To determine which of the time occasions was significantly different an independent samples t-test was conducted. No statistical differences were found.

For the test of time x intervention the null hypothesis was accepted as the p value was greater than .05 ($F(3,36) = 1.039$, $p = .375$), indicating that

there was no interaction affect. For the tests of between subjects effects for intervention no significant differences were found $F(1,12) = 0.146$, $p = .709$ between the fiction and nonfiction groups.

A repeated measures ANOVA was subsequently conducted for each of the nonfiction and fiction intervention groups to identify changes across time. For the cohort that received the nonfiction intervention first, no significant differences were noted across the time occasions $F(1,6) = 5.410$, $p = .059$. Pairwise comparisons indicated that for Study 1(a) asTTle scores were higher at the end of their intervention at O_2 ($M = 354.14$, $SD = 48.73$), than at pre intervention at O_1 ($M = 315.57$, $SD = 60.65$). No differences were found for the nonfiction group when acting as the control group in Study 1(b) between times O_3 ($M = 359.43$, $SD = 35.30$) and O_4 ($M = 378.86$, $SD = 46.91$) (see Figure 8).

For the cohort that received the fiction intervention, significant differences were noted across the time occasions $F(1,6) = 33.46$, $p = .001$. Pairwise comparisons, however, indicated no significant differences when acting as the control group in Study 1(a) from O_1 ($M = 332.14$, $SD = 75.67$) to O_2 ($M = 323.71$, $SD = 94.77$) and, similarly, no significant differences when receiving intervention in Study 1(b) between O_3 ($M = 345.14$, $SD = 68.72$) and O_4 ($M = 359.43$, $SD = 80.20$). It should be noted, though, that while there was

an overall increase in improved vocabulary and comprehension scores over time for both cohorts, for the fiction group their results decreased at O_2 (M = 323.71, SD = 94.77) compared to their pretest results at O_1 (M = 332.14, SD = 75.67), although the effect size was small d = -0.10.
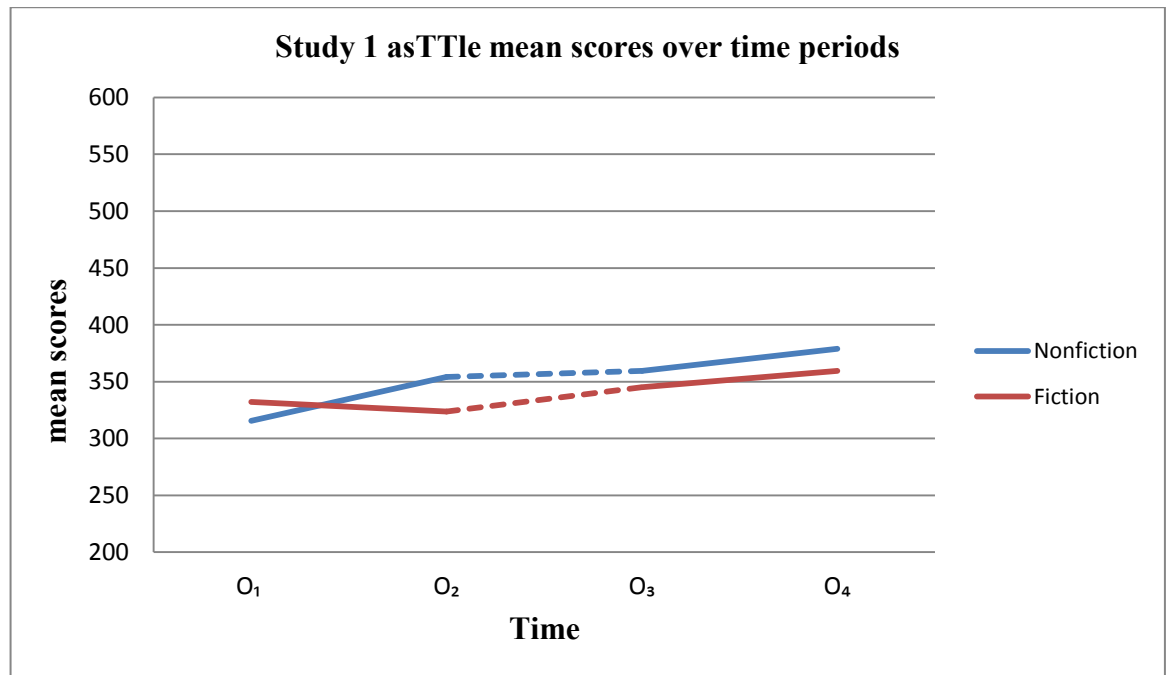
Figure 8. asTTle mean scores over time periods O_1, O_2, O_3 & O_4 in Study 1.
Note. Dotted line represents the time period O_2-O_3 when neither group received intervention nor were the control group.

Further repeated measures ANOVAs were conducted for each intervention group to identify whether their final scores at O_4 were significantly different to their commencement scores at O_1. For the nonfiction group, significant differences were found $F(1,9)$ = 14.892, p = .004 with an overall increase in score and strong effect size d = 1.17. For the fiction group, there was also a significant difference $F(1, 9)$ = 10.498, p = .010 and overall increase in

score that indicated a modest effect size $d = 0.35$ (Table 12).

Table 12

asTTle one-way ANOVA descriptive statistics and effect sizes (Cohen's d)
comparing the time periods O_1 and O_4 (Studies 1(a) and 1(b)

Group		O_1			O_4			
							Increase	
	N	M	SD	N	M	SD	M	d
Nonfiction[1]	7	315.57	60.65	7	378.86	46.91	63.29	1.17
Fiction[2]	5	332.14	75.67	5	359.43	80.20	27.29	0.35

Note. [1] = intervention first; [2] = intervention second.

Summary

The asTTle results indicated that both interventions had a significant and positive effect on reading comprehension. The nonfiction group's mean score increased when receiving their intervention in Study 1(a) with a moderate effect size $d = 0.70$ and continued to increase when acting as the control group in Study 1(b) with a modest effect size $d = 0.47$. The fiction group's mean score decreased when acting as the control group in Study 1(a) with a small effect size $d = -0.10$ and increased when receiving their intervention in Study 1(b) with a marginally larger effect size, but still considered small $d = 0.19$.

To consider impact of intervention order, a second study was undertaken (Study 2). It was hypothesized that for students in cohort 1(a) who took the intervention first there were potentially opportunities for impact on assessments

at O_2, O_3 and O_4. The cohort who undertook the intervention second, though, only had an opportunity for impact on assessment at O_4. Thus by changing the order in the second study and implementing the intervention on fiction first, this could be accounted for.

Research Question 2: Does the order in which an intervention is implemented have any effect on reading comprehension?

The aim of this research question was to determine if early intervention had more of an effect on reading comprehension. Year 2 students from the following academic year were again randomly allocated to two intervention groups (nonfiction & fiction) in Study 2. The interventions were implemented in reverse order to Study 1, i.e. fiction first and nonfiction second. A one-way ANOVA was carried out to ensure the intervention group cohorts could be compared. The ANOVA indicated no significant differences between the cohorts $F(1,12) = 0.002$, $p = .965$. Only students whose results were available for all four tests i.e. nonfiction ($n=7$), fiction ($n=5$) are reported in the following analyses.

To identify any differences for intervention (nonfiction, fiction) and time (O_1, O_2, O_3 & O_4) repeated measures analyses were undertaken. A one-between (intervention)-one-within (time) subjects ANOVA was employed on the

dependent variable of asTTle. In the tests of within-subjects effects for time, Greenhouse-Geisser *p*-values indicated significant differences $F(3,30) = 14.149$, $p = .0.00$. The null hypothesis was, thus, rejected indicating that at least one of the four time occasions was different from the others. To determine which of the time occasions was significantly different an independent samples t-test was conducted. No statistical differences were found.

For the test of time x intervention the null hypothesis was accepted as the p value was greater than .05 ($F(3,30) = 0.898$, $p = .439$), indicating that there was no interaction affect. For the tests of between subjects effects for intervention no significant differences were found $F(1,10) = 0.236$, $p = .638$ between the fiction and nonfiction groups.

With the purpose of identifying any differences across time, a repeated measures was carried out for each of the nonfiction and fiction intervention groups. For the cohort that received the fiction intervention first, differences were found across the time occasions $F(1,4) = 10.528$, $p = .032$. Pairwise comparisons indicated that for Study 2(a) asTTle scores were higher at the end of their intervention at O_2 ($M = 237.60$, $SD = 108.36$), than at pre intervention at O_1 ($M = 222.40$, $SD = 107.75$). When acting as the control group in Study 2(b) between times O_3 ($M = 344.43$, $SD = 82.93$) and O_4 ($M = 333.00$, $SD = 54.54$))

no significant differences were found for the fiction group (see Figure 9).

For the cohort that received the nonfiction intervention, significant differences were also evident across the time occasions $F(1,6) = 15.377$, $p = .008$. Pairwise comparisons indicated significant differences when acting as the control group in Study 2(a) from O_1 ($M = 233.00$, $SD = 107.03$) to O_2 ($M = 288.14$, $SD = 92.91$). No significant differences were found when receiving intervention in Study 2(b) between O_3 ($M = 344.43$, $SD = 82.93$) to O_4 ($M = 328.71$, $SD = 93.42$).

Figure 9. asTTle mean scores over time periods O_1, O_2, O_3 & O_4 in Study 2.
Note. Dotted line represents the time period O_2-O_3 when neither group received intervention nor were the control group.

Further repeated measures ANOVAs were conducted for each

intervention group to identify whether their final scores at O_4 were significantly different to their commencement scores at O_1. For the nonfiction group, significant differences were found $F(1,6) = 10.489$, $p = .018$ with an overall increase in score and moderate effect size $d = 0.95$. For the fiction group, there was also a significant difference $F(1,4) = 12.509$, $p = .001$ and overall increase in score that indicated a strong effect size $d = 1.30$ (Table 13).

Table 13
*asTTle one-way ANOVA descriptive statistics and effect size (Cohen's d)
comparing the time periods O_1 and O_4 (Studies 2(a) and 2(b)).*

Group	O_1			O_4			Increase	
	N	*M*	*SD*	*N*	*M*	*SD*	*M*	*d*
Nonfiction[2]	7	233.00	107.03	7	328.71	93.42	95.71	0.95
Fiction[1]	5	222.40	107.75	5	333.00	54.54	110.60	1.30

Note. [1] = intervention first; [2] = intervention second.

Summary

It was hypothesized at the end of Study 1 for the cohort of students receiving their intervention first that there could potentially be an impact on their assessments at O_2, O_3 and O_4. Whereas, for the cohort undertaking the intervention second there was only one opportunity for impact on assessment at O_4. The results from Studies 1 and 2 indicated this hypothesis to be correct, as

greater means and effect sizes for both interventions (nonfiction & fiction) were found when implementation was first (see Figures 7 and 8). Similarly to the nonfiction group in Study 1(a) when receiving their intervention first, the fiction group's mean score increased in Study 2(a) with a strong effect size of $d = 1.30$. Also, similarly to the nonfiction group in Study 1(b), the fiction group's mean score continued to increase when the control group in Study 2(b) with a modest effect size $d = 0.41$. It should be noted that in contrast to the fiction group in Studies 1 and 2, the nonfiction group in Study 2(a) increased in mean score when the control group with a modest effect size $d = 0.55$, but decreased in mean score when receiving their intervention in Study 2(b) with a negative weak effect size $d = -0.18$.

Research Question 3: Do ten and eleven year old students (Year 6) improve on their reading comprehension more than six and seven year old students (Year 2)?

This research question aimed to ascertain whether or not critical or sensitive periods in learning were apparent with the older students. The third study (Study 3) was, therefore, conducted in order to find out if older students improved on their reading scores more than the younger students. The students were again randomly allocated to two intervention groups (nonfiction & fiction).

To ensure the cohorts were comparable, one-way ANOVA was carried out prior to the analyses commencing. The results of the ANOVA indicated no significant differences between the cohorts $F(1,19) = 0.047$, $p = .830$. Only students whose results were available for all four tests are reported in the following analyses i.e. nonfiction (n=11), fiction (n=9).

Repeated measures analyses were conducted to detect any differences for intervention (nonfiction, fiction) and time (O_1, O_2, O_3 & O_4). A one-between (intervention)-one-within (time) subjects ANOVA was used on the dependent variable of asTTle. In the tests of within-subjects effects for time the Greenhouse-Geisser p-values indicated significant differences $F(3,54) = 5.362$, $p = .011$. Thus the null hypothesis was rejected indicating that at least one of the 4 time occasions was different from the others. To determine which of the time occasions was significantly different an independent samples t-test was conducted. No statistical differences were found.

For the test of time x intervention the null hypothesis was accepted as the p value was greater than .05 ($F(3,54) = 1.245$, $p = .299$), indicating that there was no interaction affect. For the tests of between subjects effects for intervention no significant differences were found $F(1,18) = 0.178$, $p = .678$ between the fiction and nonfiction groups.

In order to determine if there were any changes across time, a repeated measures was carried out subsequently for each of the nonfiction and fiction intervention groups. The fiction group received their intervention first and no significant differences were noted across the time occasions $F(1,8) = 2.178$, $p = .178$. For Study 3(a), pairwise comparisons indicated that asTTle scores were lower at the end of their intervention at O_2 ($M = 494.00$, $SD = 46.07$), than at pre intervention at O_1 ($M = 536.33$, $SD = 44.15$). In Study 3(b) when acting as the control between times O_3 ($M = 481.33$, $SD = 36.82$) and O_4 ($M = 481.22$, $SD = 117.56$), no differences were found for the fiction group (see Figure 10).

For the cohort that received the nonfiction intervention, pairwise comparisons indicated significant differences when acting as the control group in Study 3(a) from O_1 ($M = 539.75$, $SD = 48.55$) to O_2 ($M = 509.33$, $SD = 38.79$). Significant differences were also found when receiving intervention in Study 3(b) between O_3 ($M = 468.27$, $SD = 63.13$) to O_4 ($M = 521.91$, $SD = 51.51$).
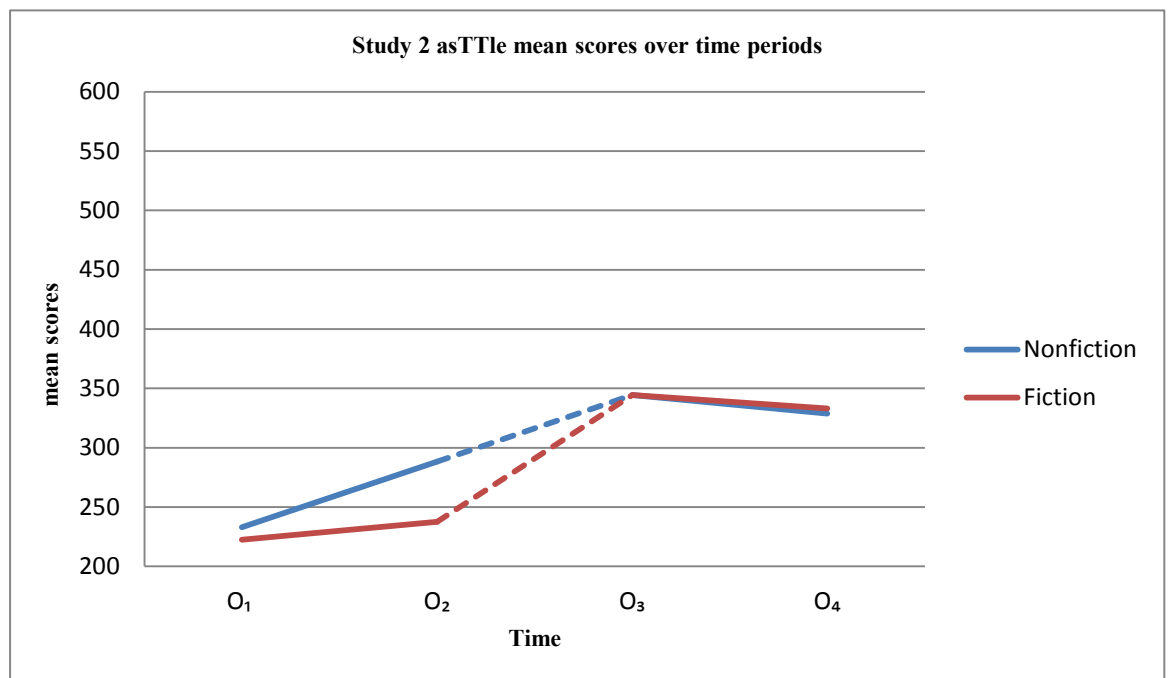
Further repeated measures ANOVAs were conducted for each intervention group to identify whether their final scores at O_4 were significantly different to their commencement scores at O_1. For the nonfiction group, no significant differences were found $F(1,10) = 1.179$, $p = .303$, with an overall

decrease in score and modest negative effect size d = -0.22. For the fiction

group, there was also no significant difference $F(1,10) = 1.179$, $p = .303$ and an

overall decrease in score and moderate negative effect size d = -0.62 (see Table

14).
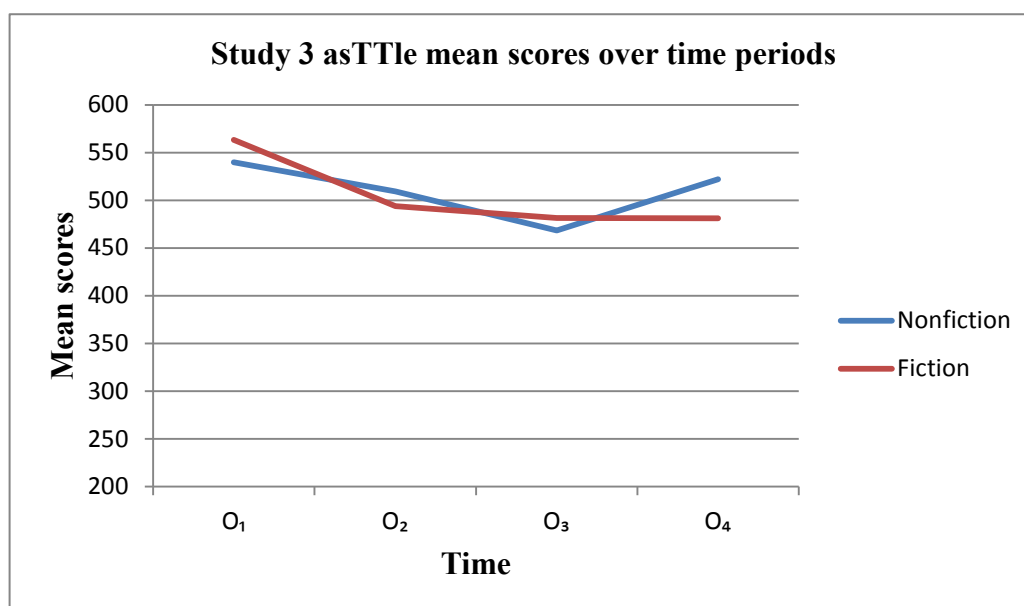
Figure 10. asTTle mean scores over time periods O_1, O_2, O_3 & O_4 in
Study 3.
Note. No intervention between time periods O_2 - O_3.

Table 14
asTTle one-way ANOVA descriptive statistics and effect sizes (Cohen's d)
comparing the time periods O_1 and O_4 (Studies 3(a) and 3(b))

Group	O_1			O_4			Decrease	
	N	M	SD	N	M	SD	M	d
Nonfiction[2]	11	532.09	42.65	11	521.91	51.51	-10.18	-0.22
Fiction[1]	9	536.33	44.15	9	481.22	117.56	-55.11	-0.62

Note. [1] = intervention first; [2] = intervention second.

Summary

Study 3 was conducted to ascertain if ten and eleven year old students improve more so on their reading comprehension than six and seven year olds. When comparing the two Year 6 cohorts, for the fiction group who received their intervention first in Study 3(a), their mean score decreased with a negative strong effect size $d = -1.54$ and in Study 3(b) continued to decrease by 0.11 from 481.33 to 481.22 and maintained this reduced score. For the nonfiction group, their mean score decreased when the control in Study 3(a) with a negative moderate effect size $d = -0.76$ but subsequently increased when receiving their intervention second in Study 3(b) with a strong effect size $d = 0.93$. When comparing the asTTle results of the older with the younger students, overall, the younger Year 2 students in both Studies 1 and 2 increased on their reading comprehension when receiving their intervention irrespective of intervention order, thus indicating both interventions were of benefit to their reading comprehension. This was not the case for the older students as the Year 6 students' reading comprehension as measured by the asTTle decreased.

Research Question 4: To what extent do the independent variables of gender, first language and intervention order have an effect on reading comprehension score gains?

One-way ANOVAs were administered to establish if the independent

variables of gender, first language, and intervention order had any effect on the dependent variables of asTTle and cloze test scores for the three studies. These ANOVAs were conducted on the test score increases or decreases between O_1 and O_4.

In Study 1 statistical significance was found for gender, $F(1,18) = 14.084$, $p = .001$. The descriptive statistics were boys ($M = 73.30$, $SD = 42.17$) and girls ($M = 17.80$, $SD = 20.22$). This should be interpreted with caution due to the wide range of individual test scores at O_1 (boys, 35 to 194; girls, -12 to 145). No statistical significance was found for first language, $F(1,18) = 0.036$, $p = .851$ or intervention order $F(1,18) = 3.009$, $p = .100$.

In Study 2 no statistical significance was found for any of the independent variables analysed. For gender, $F(1,10) = 0.255$, $p = .625$; first language, $F(1,10) = 0.869$, $p = .373$ and intervention order $F(1,10) = 0.099$, $p = .760$. In Study 3 no statistical significance was similarly found for gender, $F(1,18) = 1.355$, $p = .260$; first language, $F(1,18) = 1.087$, $p = .311$ or intervention order $F(1,18) = 0.265$, $p = .613$.

Overall summary for asTTle in Studies 1, 2 & 3

Study 1 was undertaken to find out whether the teaching of vocabulary and comprehension using nonfiction or fiction texts improved the reading

comprehension of six and seven year old students. It was concluded both interventions had a positive effect on reading comprehension. Mean score differences and effect sizes between O_1 and O_4 were, however, larger for the nonfiction intervention implemented first than the fiction intervention implemented second.

Study 2, in which the intervention orders were reversed, similarly found both interventions had a positive effect on reading comprehension. For the fiction group who had their intervention first, differences were found across the time periods, plus mean scores and effect sizes between O_1 and O_4 were larger than the nonfiction group, hence, intervention order had a greater effect on reading comprehension than the type of intervention.

Study 3 was conducted to ascertain if the older ten and eleven year old students improved on their reading comprehension more than the younger students. The interventions were implemented as Study 2 with the fiction group first and nonfiction group second. The results indicated anomalies for both intervention groups, as neither increased in mean scores or effect sizes between O_1 and O_4 irrespective of intervention order.

Intervention order, therefore, had an effect on reading comprehension irrespective of intervention type in Studies 1 and 2 with younger students. Table

15 displays the ANOVA descriptive statistics and effect sizes for the intervention groups when they received their intervention and the overall effect size between O_1 and O_4. Figure 11 graphs the asTTle mean scores over the four time periods for both intervention groups in each study.

Gender was found to have a statistically significant effect on the asTTle test scores in Study 1 only. First language and intervention order were not statistically significant in any of the three studies.

Table 15

asTTle one-way ANOVA descriptive statistics and effect sizes for groups when receiving intervention and overall d effect size between O_1 and O_4.

Intervention order and study	Pre test before intervention			Post test after intervention				Overall d
	N	M	SD	N	M	SD	d	(O_1-O_4)
First								
Nonfiction 1(a)	7	315.57	60.65	7	354.14	48.73	0.70	1.17
Fiction 2(a)	5	222.40	107.75	5	237.60	108.36	0.14	1.30
Fiction 3(a)	9	536.33	44.15	9	494.00	46.07	-1.54	-0.62
Second								
Fiction 1(b)	7	345.14	68.72	7	359.43	80.20	0.19	0.35
Nonfiction 2(b)	7	344.43	82.93	7	328.71	93.42	0.18	0.95
Nonfiction 3(b)	11	468.27	63.13	11	521.91	51.51	0.93	-0.22
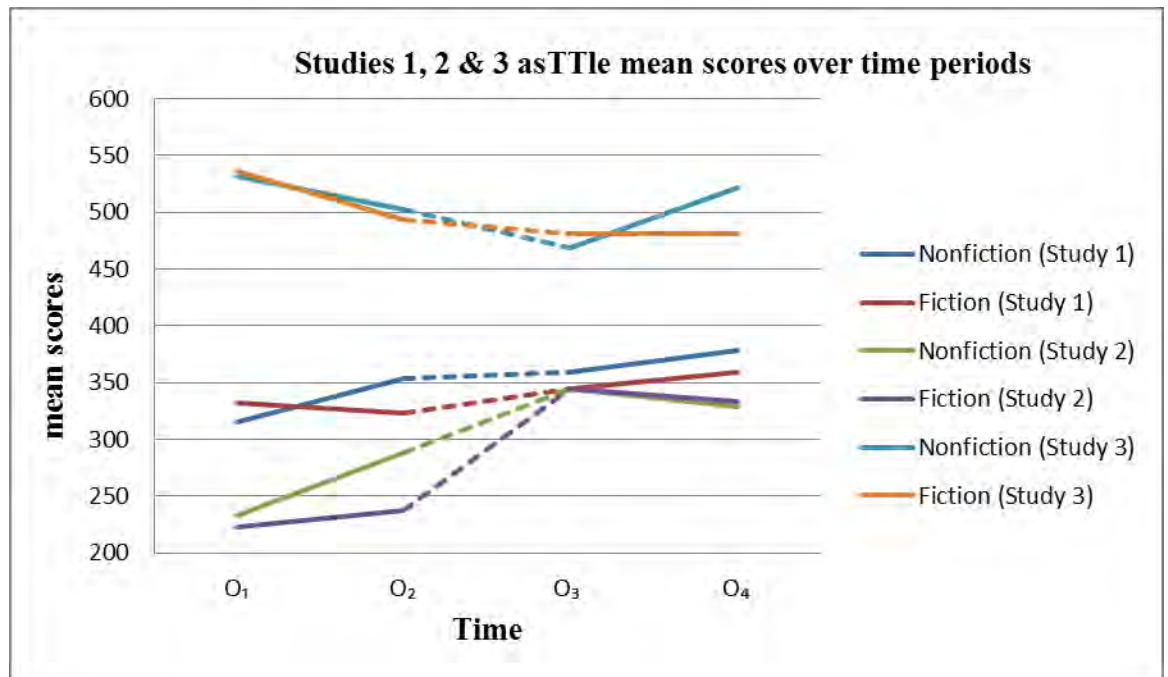
Figure 11. asTTle mean scores for both intervention groups over periods
O_1, O_2, O_3 & O_4 in Studies 1, 2 & 3.
Note. Dotted line represents the time period O_2-O_3 when neither group received intervention nor were the control group.

4.1.2 Cloze test results (Studies 2 and 3).

Cloze reading comprehension tests were created to test the possibility that a fiction intervention had just as much or more effect than a nonfiction intervention. The cloze tests tested reading comprehension and the ability to choose the most appropriate word. Missing words had the initial letter given as a cue prompt.

The focus for Study 2 was intervention order and whether this had any bearing on reading comprehension. Similarly to the asTTle tests, before the analyses were conducted and to ensure cohorts were comparable, one-way

ANOVA was performed. No significant differences were found between the cohorts $F(1,12) = 0.217$, $p = .649$ in this ANOVA analysis. Students whose results were available for all four tests are only reported on in the following analyses i.e. nonfiction ($n=7$), fiction ($n=5$). Repeated measures analyses were carried out to identify any differences for intervention (nonfiction, fiction) and time (O_1, O_2, O_3 & O_4). The one-between-(intervention)-one-within (time) subjects ANOVA was employed on the dependent variable of cloze.

The Greenhouse-Geisser p-values indicated significant differences $F(3,30) = 10.684$, $p = .001$ in the tests of within-subjects effects for time. Thus the null hypothesis was rejected signifying that at least one of the 4 time occasions was different from the others. To establish which of the time occasions was significantly different, an independent samples t-test was used. No statistical differences were found.

The null hypothesis was accepted for the test of time x intervention, as the p value was greater than .05 ($F(3,30) = 0.423$, $p = .633$), signifying that there was no interaction affect. No significant differences were found $F(1,10) = 0.012$, $p = .914$ for the tests of between subjects effects for intervention between the fiction and nonfiction groups.

To identify changes across time in cloze scores, a repeated measures

was subsequently conducted for each of the nonfiction and fiction intervention groups. No significant differences were found across the time occasions $F(1,4) = 3.458$, $p = .136$. Pairwise comparisons, however, indicated significant differences for the fiction cohort that received their intervention first in Study 2(a) from O_1 ($M = 11.20$, $SD = 11.78$) to O_2 ($M = 22.20$, $SD = 14.67$). When acting as the control group in Study 2(b) between O_3 ($M = 8.00$, $SD = 6.56$) and O_4 ($M = 7.80$, $SD = 5.36$, no significant differences were found.

Across the time occasions $F(1,6) = 1.704$, $p = .240$, it was again the case that no significant differences were found for the nonfiction cohort that received the intervention second. Pairwise comparisons indicated that cloze scores were higher at the end of their intervention for Study 2(b) at O_4 ($M = 11.43$, $SD = 7.81$, than at pre intervention at O_3 ($M = 7.14$, $SD = 5.34$) but not statistically significant. When acting as the control group in Study 2(a) between times O_1 ($M = 12.57$, $SD = 10.72$) and O_2 ($M = 20.43$, $SD = 16.62$) no differences were found (see Figure 12).   When interpreting the figures representing the cloze results, it should be noted that the scale is narrower than the representative figures for the asTTle scores.
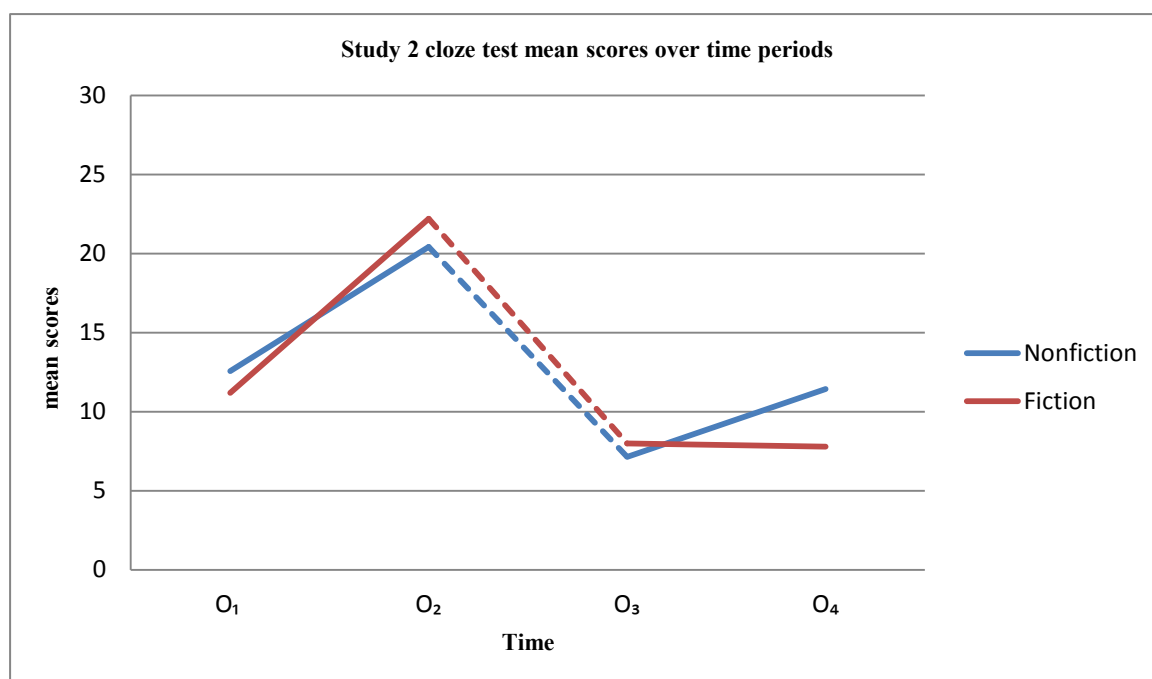
Figure 12. Cloze test mean scores over time periods O_1, O_2, O_3 & O_4 in Study 2.

Note. Dotted line represents the time period O_2-O_3 when neither group received intervention nor were the control group.

For each intervention group, further repeated measures ANOVAs were conducted to ascertain whether their final scores at O_4 were significantly different to their commencement scores at O_1. No significant differences were found for the nonfiction group, $F(1,6) = 0.100$, $p = .762$ with an overall decrease in score and modest negative effect size $d = -0.12$. There was also no significant difference for the fiction group, $F(1,6) = .100$, $p = .762$ and an overall decrease in score and moderate negative effect size $d = -0.37$ (see Table 16).

Table 16

Cloze test one-way ANOVA descriptive statistics and effect sizes (Cohen's d)
comparing the time periods O_1 and O_4 (for cloze test gain scores, Studies 2(a)
and 2(b))

Group	O_1			O_4			Decrease	
	N	M	SD	N	M	SD	M	d
Nonfiction[2]	7	12.57	10.72	7	11.43	7.81	-1.14	-0.12
Fiction[1]	5	11.20	11.78	5	7.80	5.36	-3.40	-0.37

Note. [1] = intervention first; [2] = intervention second.

Summary

The focus for Study 2 was intervention order and whether implementation first or second had any effect on reading comprehension. In other words, whether the implementation of the fiction intervention first had a greater effect on reading comprehension than the nonfiction intervention implemented second. For both intervention groups, positive effect sizes were noted, but it was found that intervention order first was more beneficial to the fiction cohort with an effect size $d = 0.83$ compared to the nonfiction cohort (intervention order second) with an effect size $d = 0.64$. It should be noted, however, when comparing the two intervention groups on time between O_1 and O_4, the overall effect sizes were found to be negative and modest for the fiction group at d = -0.37 and negative and small for the nonfiction group at d = -0.12 (see Table 16).

Study 3 was conducted to establish if the older students in Year 6 improved more on their cloze reading comprehension than the younger students in Year 2. A one-way ANOVA was conducted prior to the interventions commenced to ensure the cohorts could be compared. This one-way ANOVA indicated no significant differences between the cohorts $F(1,12) = 0.217$, $p = .649$. Only students whose results were available for all four tests are reported i.e. nonfiction ($n=11$), fiction ($n=8$) are included in the following analyses.

Repeated measures analyses were employed in order to detect any differences for intervention (nonfiction, fiction) and time (O_1, O_2, O_3 & O_4). In the tests of within-subjects effects for time the Greenhouse-Geisser p-values indicated significant differences $F(3,51) = 21.016$, $p = .000$. Thus the null hypothesis was rejected indicating that at least one of the 4 time occasions was different from the others. To determine which of the time occasions was significantly different an independent samples t-test was conducted. No statistical differences were found.

For the test of time x intervention the null hypothesis was accepted as the p value was greater than .05 ($F(3,51) = 0.435$, $p = .679$), indicating that there was no interaction affect. For the tests of between subjects effects for intervention no significant differences were found $F(1,17) = 0.392$, $p = .540$

between the fiction and nonfiction groups.

To ascertain changes across time, a repeated measures was conducted for each of the nonfiction and fiction intervention groups. For the cohort that received the fiction intervention first, significant differences were noted across the time occasions $F(1,7) = 7.789$, $p = .027$. Pairwise comparisons also indicated significant differences when receiving the intervention in Study 3(a) from O_1 ($M = 19.25$, $SD = 3.41$) to O_2 ($M = 24.00$, $SD = 5.95$). Significant differences were also found when acting as the control group in Study 3(b) between O_3 ($M = 12.25$, $SD = 4.80$) and O_4 ($M = 17.64$, $SD = 3.11$) (see Table 17).

For the cohort that received the nonfiction intervention second, significant differences were found across the time occasions $F(1,10) = 8.589$, $p = .015$. Pairwise comparisons indicated that for Study 3(b) cloze scores were higher at the end of their intervention at O_4 ($M = 17.64$, $SD = 3.11$, than at pre intervention at O_3 ($M = 13.91$, $SD = 4.59$). No differences were found when acting as the control group in Study 3(a) between times O_1 ($M = 21.55$, $SD = 6.71$) and O_2 ($M = 23.27$, $SD = 5.85$) (see Figure 13).
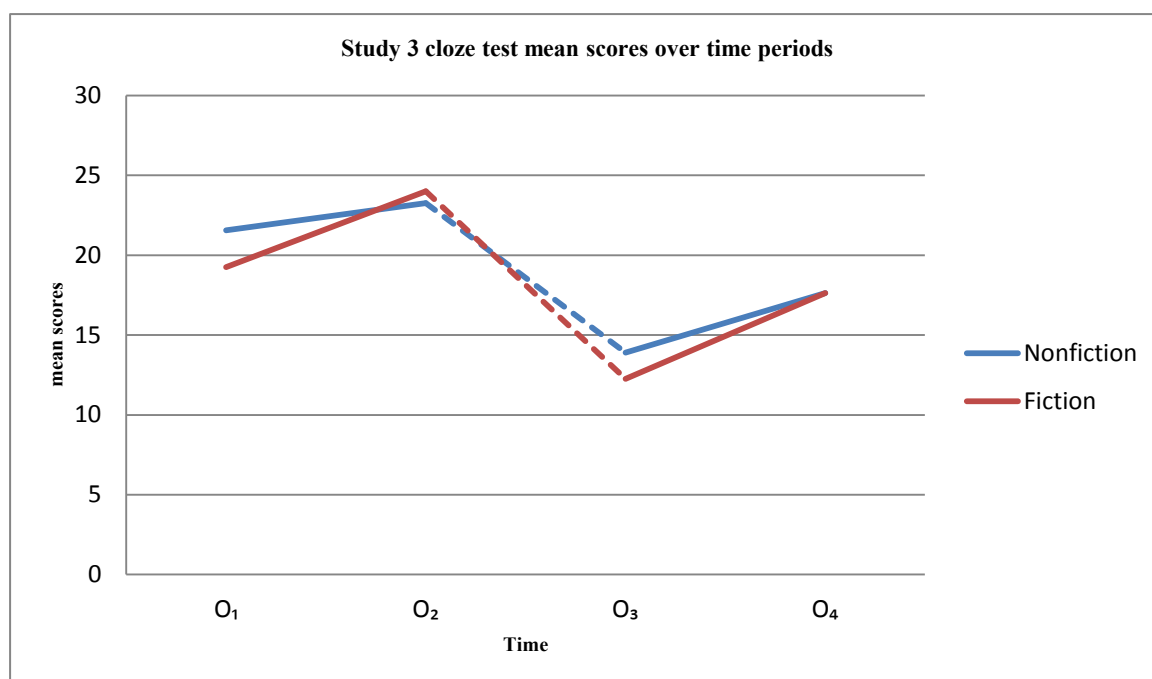
Figure 13. Cloze test mean scores over time periods O_1, O_2, O_3 & O_4 in Study 3.

Note. Dotted line represents the time period O_2-O_3 when neither group received intervention nor were the control group.

Further repeated measures ANOVAs were conducted for each intervention group to identify whether their final scores at O_4 were significantly different to their commencement scores at O_1. For the nonfiction group, no significant differences were found $F(1,10) = 3.679$, $p = .084$ with an overall decrease in score and modest negative effect size $d = -0.75$. For the fiction group, there was also no significant difference $F(1,7) = 2.144$, $p = .187$ and an overall decrease in score and moderate negative effect size $d = -0.54$ (see Table 17).

Table 17

Cloze test one-way ANOVA descriptive statistics and effect sizes (Cohen's d) comparing the time periods O_1 and O_4 (cloze test gain scores, Studies 3(a) and 3(b))

Group	O_1			O_4			Decrease	
	N	*M*	*SD*	*N*	*M*	*SD*	*M*	*d*
Nonfiction[2]	11	21.55	6.71	11	17.64	3.11	-3.91	-0.75
Fiction[1]	8	19.25	3.41	8	16.50	6.39	-2.75	-0.54

Note. [1] = intervention first; [2] = intervention second.

Study 3 sought to determine whether older students improved on their reading comprehension more than younger students. The cloze test means, standard deviations, effect sizes and overall *d* between the time periods of O_1 and O_4 for the Year 2 students in Study 2 and Year 6 students in Study 3 were compared (see Table 18).

Irrespective of intervention order first or second, effect sizes for both the nonfiction and fiction groups were greater for the Year 2 students. When considering overall *d* between O_1 and O_4 the younger Year 2 students also achieved higher increases on their reading comprehension than the older Year 6 students. Figure 14 gives a graphic representation of the cloze mean scores over the four time periods for both intervention groups in Studies 2 and 3.

Table 18

Cloze test one-way ANOVA descriptive statistics and effect sizes for groups when receiving intervention and overall d effect sizes between O_1 and O_4.

Intervention order and study	Pre test before intervention			Post test after intervention				Overall d (O_1-O_4)
	N	M	SD	N	M	SD	d	
First								
Fiction 2(a)	5	11.20	11.78	5	22.20	14.67	0.83	-0.37
Fiction 3(a)	8	19.25	3.41	8	24.00	5.95	0.98	-0.12
Second								
Nonfiction 2(b)	7	7.14	5.34	7	11.43	7.81	0.64	-0.54
Nonfiction 3(b)	11	13.91	4.59	11	17.64	3.11	0.95	-0.75
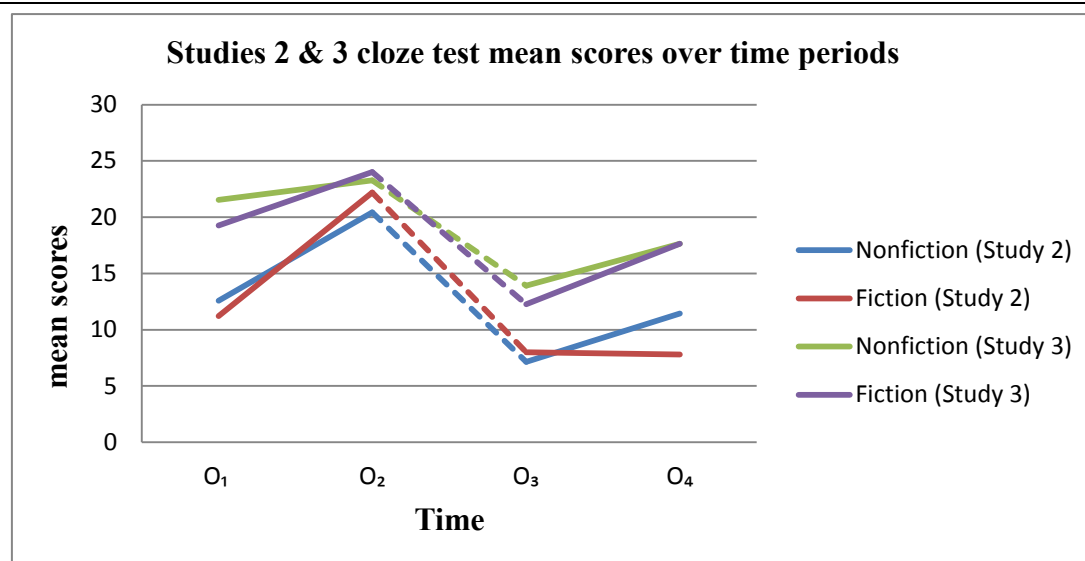
Figure 14. Cloze mean scores for both intervention groups over periods O_1, O_2, O_3 & O_4 in Studies 2 & 3.

Research Question 4: To what extent do the independent variables of gender, first language and intervention order have an effect on reading comprehension score gains?

This research question aimed to ascertain if issues that have been reported in other studies on gender (for example, boys under-performing in literacy) (Francis et al., 2012), first language and reading comprehension (Cenoz, 2003) or intervention order/early intervention (Duff et al., 2008) were apparent with the three student cohorts in this research.

No statistical differences were found for any of the independent variables, in Studies 2 and 3 with the cloze test scores. In Study 2 for gender, $F(1,10) = 0.027$, $p = .872$; first language, $F(1,10) = 3.247$, $p = .102$ and intervention order $F(1,10) = 0.198$, $p = .666$.

In Study 3, for gender, $F(1,17) = 0.011$, $p = .917$; first language, $F(1,17) = 3.288$, $p = .087$ and intervention order $F(1,17) = 0.629$, $p = .438$. (Note. One student in Study 3 was administered the asTTle test but not the cloze test, hence, difference in degrees of freedom statistic).

Overall summary: asTTle for Studies 1, 2 and 3 and Cloze for Studies 2 and 3.

Table 19 displays the descriptive statistics for the three studies at the start (O_1) and end (O_4) of each study with the overall d effect size. asTTle results are included for all three studies and cloze results for the tests administered in Studies 2 and 3 only. Figure 13 graphs the cloze mean scores over the four time periods for both intervention groups in Studies 2 and 3.

The asTTle findings from Studies 1 and 2 indicated that for the Year 2's receiving their intervention first, irrespective of intervention type, overall gains were significantly greater than when receiving their intervention second. The asTTle results for the Year 6's, nevertheless, demonstrated an anomaly. The effect size for the nonfiction group when receiving their intervention second was significantly positive and strong at $d = 0.93$ but for the fiction group when receiving their intervention first was negative strong at $d = -1.54$. The overall effect size for the nonfiction group was negatively moderate at $d = -0.62$ and for the fiction group negatively moderate at $d = -0.22$.

The cloze findings from Study 2 indicated higher mean score gains and effect sizes for the fiction group who received their intervention first, thus echoing the asTTle results in Study 2. The cloze results for the Year 6 cohort, however, indicated that the fiction group had a slightly higher effect size moderate at $d = 0.98$ than the nonfiction group at $d = 0.95$. The overall effect size gain between O_1 and O_4 was negatively small for the fiction group at $d = -0.12$ and negatively moderate for the nonfiction group at $d = -0.75$.

Table 19

asTTle and Cloze one-way ANOVA descriptive statistics and overall d effect size between O_1 and O_4.

	O_1			O_4			
Test and Group	*N*	*M*	*SD*	*N*	*M*	*SD*	*d*
asTTle							
Study 1 (Y2)							
Nonfiction[1]	7	315.57	60.65	7	378.86	46.91	1.17
Fiction[2]	5	332.14	75.67	5	359.43	80.20	0.35
Study 2 (Y2)							
Nonfiction[2]	7	233.00	107.03	7	328.71	93.42	0.95
Fiction[1]	5	222.40	107.75	5	333.00	54.54	1.30
Study 3 (Y6)							
Nonfiction[2]	11	532.09	42.65	11	521.91	51.51	-0.62
Fiction[1]	9	536.33	44.15	9	481.22	117.56	-0.22
Cloze							
Study 2 (Y2)							
Nonfiction[2]	7	12.57	10.72	7	11.43	7.81	-0.12
Fiction[1]	5	11.20	11.78	5	7.80	5.36	-0.37
Study 3 (Y6)							
Nonfiction[2]	11	21.55	6.71	11	17.64	3.11	-0.75
Fiction[1]	8	19.25	3.41	8	16.50	6.39	-0.54

Note. [1] = intervention first; [2] = intervention second. Y = Year group.

Summary RQ4 asTTle and Cloze

The results from the one-way ANOVAs found no statistical differences for the independent variables of gender, first language and intervention order on the dependent variables of asTTle and cloze test scores between O_1 and O_4 in any of the three studies except gender in Study 1. This statistical difference, however, should be interpreted with caution due to the wide range of individual asTTle test scores at O_1.

4.2 Student Questionnaire results and data analyses

Research Questions 5 to 9 explored student learning strategies when encountering difficulties learning new English vocabulary (Chung et al., 2005; Nation, 2001); issues of motivation and enjoyment in learning English (Dörnyei, 2001); student preferences in terms of reading fiction or nonfiction content materials (Duke et al., 2008; Edmunds & Bauserman, 2006) and their favourite book genre. The research questions also addressed some of the issues raised in published research studies on the importance attached to being able to communicate in English (Lai, 2001; 2009). Research Question 10 asked the students for their opinion on the intervention sessions and whether they found them beneficial to learning new English words.

Research Question 5: Are there similarities between the year groups with regard to their enjoyment in reading in English?

There were 45 students who replied 'Yes' to the question 'Do you enjoy reading in English? Just one student replied 'No', an L1 English boy (S 2-4) participating in Study 2 who explained his reason as "Because I am better at maths". For a complete list of comments made by the responding students, see Appendix S.

Table 20 displays the reasons identified by the students for answering

'Yes' to the initial closed question. Their reasons were coded for themes and number of times expressed counted. The responses for the Year 2 students in Studies 1 and 2 were combined to enable direct comparison of any similarities between the Year 2 and Year 6 students.

Some similarities were found between the two year groups (Table 27). For the Year 2 students, the two themes found to be the most common expressed were 'Easier to read in English than other languages' and 'Learning new things (e.g. new vocabulary)' (n=5 each). For the Year 6 students, 'Better at reading in English than in Chinese' was remarked as the most common reason for enjoying reading in English (n=5). All of these Year 6 students were L1 Cantonese. Such comments from the Year 6 students reveal the distinction made between learning Chinese and English. The reasons could be that all five students had been educated in primary international education since at least Year 1 with English as the MOI.

Table 20

Student responses to the question 'Do you enjoy reading in English?'

Themes	Total Year 2 students	Year 6 students
Easier to read in English than other languages	5	3
Learning new things (e.g. new vocabulary)	5	1
Better at reading in English than in Chinese	NR	5
Only language can read in fluently	2	4
Exciting/Fun activity	4	NR
Interesting activity	2	2
Reading mostly in English (e.g. at school)	2	1
Favourite activity/language	2	NR
Enjoyment of jokes in books	1	NR
Prompts imaginative thoughts/emotions	1	1
Language used when growing up	NR	1
Reading assisting in improving spelling of words	NR	1

Note. NR = no response.

Research Question 6: Are there similarities between year groups with regard to book genre enjoyed the most?

The students were additionally asked the questions 'Which type of book do you enjoy reading most in English? and 'Why do you like reading your chosen types of book the most?' (See Table 21). The students were given a list of genres to choose from with 'Other' as an option if their choice was not listed.

When comparing fiction to nonfiction content materials, the majority of students in both year groups indicated that they prefer fiction to nonfiction

books. When considering the asTTle and cloze test results, the nonfiction

intervention appeared to be more beneficial to reading comprehension for

younger and older students, therefore, the finding that the students preferred

reading fiction books could be interpreted as somewhat surprising. Story books

were most enjoyed by the Year 2 students (n=10) and adventure books second

(n=7) and vice-versa for the Year 6 students (adventure books, most enjoyed,

n=10 and story books, second most enjoyed, n=8).

Across the year groups, science fiction was least enjoyed by the students

with only one Year 6 student choosing this genre. Comic and poetry books were

not chosen by the Year 6 students, but comic books were considered reasonably

popular as the third most chosen genre (n=5)

Table 21

Student responses 'Which type of book do you enjoy reading most in English?'

Genre	Total Year 2 students	Year 6 students
Story	10	8
Adventure	7	10
Comic	5	NR
Information/nonfiction	3	1
Poetry	2	NR
Science fiction	NR	1

Note. NR = no response.

The interest factor was found to be the most common response across the

year groups, with creativity and imagination being the reasons most commonly

expressed by the older students. The students commented further on their reasons for choosing their particular genre of book. A full list of comments made by the Year 2 and Year 6 students are in Appendix N. Their comments have not been changed for spellings or grammatical errors. Comments about cliff-hangers and suspense demonstrated the increased awareness that the older students had for such terms. All comments were made by L2 English students with regard to adventure books. They said,

"Because there is a lot of cliffhangers and suspense" (S 3-13, L1 Cantonese).

"I really like adventure stories, sometimes you don't know what's going to happen it makes me want to read more" (S 3-5, L1 Cantonese).

"Because of the suspense" (S 3-14, L1 Dutch).

"I like adventure books because there is always a suspense and it gets addictive and you want to read more" (S 3-19, L1 Cantonese).

The students were additionally asked the question 'What was the last thing you read in English?' (See Table 23). The responses to this question echoed those to the previous question 'Which type of book do you enjoy reading most in English?' Adventure and story books were the most commonly expressed reading material last read by them. A similarity across the two year

groups was that story book was the most common reading material item last read by the students (Year 2, *n*=8 and Year 6, *n*=5). However, for the Year 6 students, adventure book and Internet website/Email message were also equally most common (n=5 each).

Table 22

Student responses to the question 'Why do you like reading your chosen type of book the most?'

Genre	Total Year 2 students	Year 6 students
Interesting	5	4
Funny	5	1
Adventures	3	1
Characterisation	3	NR
Creativity/Imagination	2	4
Cliff-hangers/suspense	NR	4
Exciting	2	3
Life story	1	NR
Easy to read	1	NR
Curiosity	NR	1
Parental encouragement to read	NR	1

Note. NR = no response.

Table 23

Student responses to the question 'What was the last thing you read in English?'

Reading material	Total Year 2 students	Year 6 students
Adventure book	5	5
Children's newspaper	1	NR
Comic book	2	1
Information/nonfiction book	2	2
Internet website/Email message	1	5
Magazine	1	NR
Poetry book	2	NR
School book	4	2
Story book	8	5

Note. NR = no response.

Research Question 7: Are there differences in the experiences of English learners when learning new vocabulary?

The students were asked to respond using yes or no 'Have you ever had any problems learning new words in English?' The question was asked to ascertain whether the younger students experienced more difficulties in learning new vocabulary. The responses indicated even distribution between their answers of 'Yes' or 'No' in each year group. The students in Studies 1 and 2 similarly responded yes ($n=7$) and no ($n=6$) and in Study 3 responded yes ($n=10$) and no ($n=10$).

In the additional open question, students were asked to think of any problems they have encountered and their coping strategies. Table 24 displays

their comments, which were coded for themes and the number of times expressed counted. Themes are listed in alphabetical order. A full list of the Year 2 and Year 6 comments are in Appendix T.

For problems the students encounter when learning new words in English, comments associated with spellings were the most common made (n=6) (Table 24). With regard to strategies, asking an adult for unknown words was the most common comment made (n=7) (Table 25).

"When I learned new words, I didn't raise up my hand, but just waited for someone to explain more and help" (S 1-14, L1 Cantonese).

Two students commented that they will ask adults, but gave an additional strategy. They remarked:

"Yes, dialect/language/long words. I will ask my Mummy and teachers help. Sometimes I will read the book again to try and understand the words fully" (S 1-15, L1 Cantonese).

"I would ask my family and right it down many times" (S 3-7, L1 Cantonese).

Table 24

Student responses to the question 'Can you think of any problems that you have had [learning new words in English]?'

	Number of times expressed		
Themes	Total Year 2 students	Year 6 students	Total
Problems			
Problems with spellings	4	2	6
Not knowing meaning of the word(s)	3	2	5
Not knowing how to say the word(s)	1	2	3
Confusion with rhyming words	1	NR	1
Dialect or long words	1	NR	1
English not being mother tongue	1	NR	1
Learning too many words at same time	1	NR	1
Grammar/preposition problems	NR	1	1

Note. Some students who responded 'Yes' did not comment on the problems they have and/or strategies they use; NR = No Response.

Table 25

Student responses to the question 'Can you think of any problems that you have had [learning new words in English]?' (strategies used)

| | Number of times expressed | | |
Themes	Total Year 2 students	Year 6 students	Total
Strategies			
Ask an adult for unknown words	4	3	7
Use a dictionary	NR	3	3
Look at differences in spellings	2	NR	2
Guess the meaning	1	NR	1
Learn more and try harder	1	NR	1
Look, Cover, Write, Check	1	NR	1
Look in books	1	NR	1
Sound out new words	1	NR	1
Use of mnemonics	1	NR	1
Write new words in notebook	NR	1	1

Note. Some students who responded 'Yes' did not comment on the problems they have and/or strategies they use; NR = No Response.

Research Question 8: Are there similarities in the vocabulary learning strategies used between the year groups?

This research question was raised to ascertain if the students in this research used similar learning strategies (Nation, 2001) to those identified in published studies (Cheung et al., 2005). Table 26 presents the strategies identified by the students that they use to assist in learning new words. Students could choose more than one strategy. The responses for the Year 2 students in

Studies 1 and 2 were combined to enable direct comparison of any similarities between the Year 2 and Year 6 students. The results are displayed in the order of most common first to least common last.

The results indicated similarities between the two year groups, when the Year 2 students in Studies 1(a) and 1(b) and Studies 2(a) and 3(b) were combined, as 'Asking friends and/or family for help' was the most common strategy identified for both (Year 2, n=19 and Year 6, n=18). In addition, similarities were found when combining the two Year 2 groups, as 'Using an English dictionary' was the second most common strategy identified for both (Year 2, n=16 and Year 6, n=16).

Making use of prefix and suffix knowledge was an important strategy both Year 2 and Year 6 students used in third most common place. Although not the most common strategy used, both the Year 2 (n=3) and Year 6 students (n=3) indicated 'Think about the word in your first language (if not English)' as a strategy that they use.

Table 26

Student responses to the question 'When you are learning new words, do you use any of the following [strategies] to help you remember them?'

Strategies	Total Year 2 students	Year 6 students
Ask friends and/or family for help	19	18
Use an English dictionary	16	16
Breaking the word up into its prefix, root and suffix	12	9
Reading stories, newspapers, magazines outside the classroom	10	7
Write the word down many times (repetition)	12	4
Use particular Internet websites	8	7
Using pictures to help remember the new word(s)	8	2
Use a dictionary in English and your first language	5	2
Think about the word in your first language (if not English)	3	3
Others (specified by student)		
Singing the word	NR	1
Using a thesaurus	NR	1

Note. NR = no response.

Research Question 9: Are there similarities between year groups on the importance of learning English?

Published studies (Lai, 2001) have found students in Hong Kong value being able to communicate in English. This research similarly concluded that the students had similar opinions, as all of the students responded 'Yes' to this question. Table 27 presents reasons why the students responded 'Yes' to the question.

Table 27

Student responses to the question 'Do you think it is important to be able to communicate (read, write and speak) in English?'

Strategies	Total Year 2 students	Year 6 students
Number of people speaking English	7	6
worldwide	7	1
Speaking to family or friends	1	3
Communicating with others from English		
speaking countries	NR	4
Better job/work opportunities speaking		
English		
English as a common/popular language	3	3
Better school grades	1	3
For learning new things	3	NR
Focus school using English as MOI	2	NR
Understanding others	2	NR
Handwriting issues	NR	1
Living successfully	NR	1

Note. NR = no response

The additional open question asked the students to explain their reason or reasons for answering 'Yes'.

Similarities were found between the Year 2 and Year 6 students. The most common comment made by both year groups was reference to the number of people worldwide who speak English (Year 2, *n*=7 and Year 6, *n*=6). Being able to speak with family and/or friends (*n*=7) was the equal most common reason for the Year 2 students. Year 6 students made reference to future issues: better job/work opportunities (*n*=4) and better school grades (*n*=1). Such issues were not stated by the younger students possibly due to their maturity.

Other notable differences were the Year 2 students identifying English as the MOI of the school (*n*=3) and learning new things (*n*=3) as important reasons to be able to communicate in the language.

Research Question 10: What are the student perceptions of the intervention sessions?

The aim of this research question was to determine the effectiveness of the intervention programme. Students were asked the question: 'Did the [intervention] sessions help you learn new words?' Table 28 displays the reasons why the intervention sessions were of use. Comments were coded for themes and the number of times expressed counted. Learning new vocabulary was sub-divided into five sub-themes, as 11 students mentioned specific terms. Table 29 displays comments made by the students who responded 'no'.

In total, 37 students (80%) indicated that the intervention sessions were of use to them and 9 students (20%) indicated they were not. For the students who replied 'Yes', their most common reasons stated (Table 28) were: Study 1, learning new words in general (*n*=3) and Study 3, reading story books (*n*=3). Learning new words in general was the most common reason (*n*=3) stated by the Year 2 students. It was also the most common reason stated across all three studies (*n*=5). For the students who replied 'No', their most common reason

stated (Table 29) was already knowing the words taught in the intervention

sessions (*n*=5). It was the only theme expressed across all the studies.

Table 28

Student responses to the question 'Did the [intervention] sessions help you learn new words? Can you please tell me why you answered 'yes'?'

Themes	Total Studies 1 and 2	Study 3	Total
Learning new words in general	3	2	5
Reading story books	1	3	4
Remembering strategies	1	3	4
National Geographic magazines	1	2	3
Tests/assessments administered	1	2	3
Nonfiction book layout (glossary)	1	2	3
Dictionary use	2	NR	2
Reading and pronouncing new words	2	NR	2
Exercises	2	NR	2
Learning synonyms	1	1	2
Making nonfiction book	1	1	2
Thinking more when writing sentences	1	1	2
Classes were hard	1	NR	1
Computer use	1	NR	1
Informational Trade Books	1	NR	1
Knowing more knowledge	1	NR	1
Learning family words	1	NR	1
Learning human places and parts	1	NR	1
Teaching new words in sections	1	NR	1
Learning affixes	NR	1	1
Learning animal places and parts	NR	1	1
Use of word cards/games	NR	1	1
Working in small groups	NR	1	1

Note. NR = no response.

Table 29

Student responses to the question 'Did the [intervention] sessions help you learn new words? Can you please tell me why you answered 'no'?'

Themes	Studies 1 and 2	Study 3	Total
Already knew the words taught in the sessions	4	1	5
Learnt more facts than words	1	NR	1
Did not understand session content	1	NR	1
Not allowed to use dictionary to look up unknown words in sessions	NR	2	2

Note. NR = No Response.

Summary of questionnaire responses

Reading in English was an activity enjoyed by all of the students in Year 6 and all but one in Year 2. Reasons given were finding English easier to read in than other languages and learning new things, for example, vocabulary by the Year 2 students. For the Year 6 students, their most common reason was the belief that they were better at reading in English than in Chinese. All of these respondents were L1 Cantonese.

The majority of the younger and older students, chose fiction content books as their most favourite type of book to read. This finding could be interpreted as contrasting the asTTle and cloze test results, in which the nonfiction intervention improved reading comprehension more so than fiction. Specifically, story books and adventure books were found to be the most

popular genres read by the students across the two year groups. Science fiction books were the least popular genre across the two year groups. The interest factor was their reason for enjoying their favourite genre in Year 2 and Year 6. The Year 6 students also commented on books giving them opportunities to be creative and to be imaginative in their thoughts.

With regard to problems learning new words in English, the students were evenly distributed in their 'Yes' 'No' replies in both year groups. Difficulty with spellings was the most common response when learning new English words. For strategies, asking another person (for example, an adult, friends or family) and using an English dictionary were the most common strategies identified for both year groups to assist them with spelling difficulties.

It was evident that being able to communicate in English is considered important by both year groups and the most common reason identified were due to the number of people worldwide who speak English. In addition, Year 2 students considered being able to speak with their family or friends an important reason and for the Year 6 students, better work opportunities were mentioned.

The students across the two year groups responded positively on their

opinion of the intervention sessions and whether or not they were useful in learning new English words.

This chapter reported the results of the asTTle tests administered in Studies 1, 2 and 3 and the cloze reading comprehension tests administered in Studies 2 and 3. The results were reported in response to the four research questions with detail of the statistical analyses that were conducted using SPSS. The results of the student questionnaire were also reported in response to the six research questions.

Chapter Five draws on the research questions and makes conclusions. Limitations of the studies are discussed and future research projects considered.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This research was undertaken in an international primary school in Hong Kong. The 57 students involved were from a variety of L1 backgrounds, with the majority of the students having Chinese as their L1. English was the MOI of the school. Chinese was taught daily as an additional language. The curriculum followed the Primary Years Programme (PYP) of the International Baccalaureate Organisation (IBO). Class sizes were on average 20-25 students involving a mixture of whole class and group teaching approaches. Reading was generally taught using books from reading schemes such as Oxford Reading Tree and PM Readers. The reading scheme books were mainly fiction in content and were used for shared reading in groups. The focus of the teaching of vocabulary was generally using spelling and word lists and applying the strategy of Look, Cover, Write, Check. The use of these, however, has been shown to be an ineffective strategy for learning new vocabulary (Ng & Sullivan, 2008; Vacca & Vacca, 2008)

In recent decades, research has been conducted on vocabulary

development finding strong connections with reading comprehension (Nagy, 2005; National Reading Panel, 2002; Rupley & Nichols, 2005; Tam, Heward & Heng, 2006; Vacca, Vacca & Mraz, 2011). It has been found that in general students have limited exposure with nonfiction texts particularly in the primary years (Duke, 2004). The lack of nonfiction access has been considered as inadequate for preparing students for secondary school. This poses a particular issue when children increasingly need to be able to engage with expository texts (Benson, 2003). The aim of this study was, therefore, to ascertain whether any differences were found when using fiction or nonfiction texts to teach vocabulary and reading comprehension to primary aged students.

Three quasi-experimental studies were undertaken which revealed four key findings. This was a small-scale study and although too small to develop conclusive findings, the results suggest some positive and promising effects. Two interventions were employed in each of three studies using nonfiction or fiction texts to teach vocabulary and reading comprehension. The first two studies involved six and seven year old students in Year 2 (n=36) and the third study involved ten and eleven year old students in Year 6 (n=21). Each study used five teaching sessions of an hour duration over a period of five weeks. Data were collected at pre and post sessions to measure vocabulary and

reading comprehension.

Themes and issues considered for the lesson content of the interventions included finding out what the students already knew and using this as a base for teaching new terms and concepts. Multiple or repeated exposures of new words were ensured in the sessions (Alvermann et al., 2007; Schmitt, 2010). The explicit and intentional teaching of specific words and meanings was employed as this had been found essential to support student vocabulary development (Christ & Wang, 2010).

The fiction interventions were designed based on effective intervention programme research (Alvermann et al., 2007; Blachowicz & Fisher, 2002; Diamond & Gutlohn, 2006; Schmitt, 2008, 2010). Biemiller and Slomin (2001) contended that when a root word is known, younger grade students can understand derived, inflected, and compound words. Word roots were, therefore, employed as part of the fiction teaching programme. The nonfiction sessions were designed based on research that promoted the use of such texts in primary schools (Duke, 2003; Hall & Sabey, 2007; Soalt, 2005). Moss (2004) found expository text retell to be of benefit to English language learners (ELL), as it helped them to make connections between their L1 and L2. As a high percentage of the students in this research were ELL this approach was used.

All interventions were enjoyed by the students as the activities were practical using varied approaches.

5.2 Critical age differences

Emerging from the data, the first key finding was that participating in the interventions increased positive outcomes for the younger students. This finding supported other studies of early intervention (e.g. Duff et al., 2008). Duff et al. (2008) found their nine week intervention programme improved the reading, phonological awareness, and language skills of eight year old students.

The asTTle scores for the Year 2 students in Studies 1 and 2 were significantly different with positive effect sizes for both intervention groups between the start and end time periods at O_1 and O_4 respectively. For the Year 6 students, however, their asTTle scores were not statistically significant and unexpectedly, their results decreased overall across the two interventions. For the cloze test results, no significantly different results were found across time for either year group irrespective of intervention, although effect sizes for the Year 2 intervention groups were greater than for the Year 6 students.

Critical periods in second language acquisition (L2A) have been described as a "contentious issue" that many L2 researchers are divided upon (for example, DeKeyser, 2005). DeKeyser (2005) suggested that post-puberty

L2 learners do not progress as far as L1 learners, but issues of age-proficiency function and cognitive interpretation continue to be questioned by L2 researchers. Some studies for example show that older learners progress faster in a more directed instructional environment.

With regard to eventual outcomes, Hyltenstam and Abrahamsson (2003) contended that younger learners outperform older learners and that younger learners are better at language learning than older students. It should be noted, however, that younger students are at an earlier stage in their learning and, therefore, more likely to be impacted by an intervention as measurable progress in a language is harder to achieve the more one knows. Furthermore, critical age is often thought to refer to unconscious acquisition whilst this study focused more on conscious learning as a result of instruction. The findings of this research continue to reaffirm the importance of early intervention in the teaching of reading in international education, as critical periods in language acquisition have been found to exist with L1 learners (Herschensohn, 2007; Singleton, 2003).

While there is divided opinion on the critical age for the acquisition of L2 learners (Herschensohn, 2013; Hyltenstam & Abrahamsson, 2003), this research indicated a difference between the Year 2 and Year 6 students. Overall,

the younger students improved more in their reading comprehension than the older students. The findings appear to support studies that suggest an advantage exists for younger learners in their language acquisition and that a maturationally sensitive period exists for L2 learners that start to decline from 4 years of age, continuing to decline more steeply during the teenage years (Herschensohn, 2013).

A practical implication of this finding is that as international schools in Hong Kong generally have a very high proportion of L2 English students (Forse, 2010), when planning reading programmes, educators need to be mindful of critical age periods, as it is apparent earlier intervention showed greater and more positive gains than later intervention.

Data highlighted that when learning new words in English, students found that spelling caused them the most difficulty. Most commented that they asked an adult for unknown words. English dictionaries were found to be a resource often used to help learn new English vocabulary, reiterating what had been previously found (Cheung et. al, 2009; Fan, 2003; Hyso & Tabaku, 2011). In particular this confirmed previous findings of Cheung et al. (2009) that due to a limited vocabulary, many L1 Chinese students ask their teachers or consult dictionaries for assistance. Although Fan's (2003) research was conducted with

L1 Cantonese undergraduates, she found older students similarly used dictionaries as a support.

A distinction was made by the older L1 Cantonese students of their learning in English compared to Chinese. The students were of the opinion that English was an easier language for them to learn. It should be noted that some of the students had been educated since nursery in an EMI international education environment and, therefore, never experienced schooling in their L1. These findings support the research of Tung et al. (2007) who concluded that for L1 Cantonese students learning in an EMI was more advantageous for learning English as opposed to learning in a CMI School and that studying all subjects in Chinese could be of detriment to learning in English. This finding of Tung et al. (2007) and the opinions expressed by the Year 6 students do have implications including the possible detrimental effect on L1 due to a preference for learning in their L2.

5.3 Intervention order

The second key finding was that intervention order for the younger children produced stronger effect sizes for earlier intervention. Following the first study, when the nonfiction intervention was implemented first and fiction second, a further study investigated whether changing the order of intervention

had any effect on the outcome. This was particularly relevant to identify whether the impact on the cohort which received their intervention first was due to the intervention type or the earlier time frame. The theoretical framework consists of the location of the research in a Hong Kong school within the international school system. Different perspectives on reading comprehension and the use of intervention programmes (Duff, Fieldsend, Bowyer-Crane, Hulme, Smith, Gibbs & Snowling, 2008) were studied. Previous research investigating age of students (DeKeyser, 2013), gender (Francis, Luk-Fong & Skelton, 2012) and intervention order (Stephens, 2010) that identified potential differences were also reviewed. Practical implications of this finding are that schools need to be mindful of earlier intervention when planning reading programmes.

5.4 Fiction verses nonfiction

The third key finding was that exposure to nonfiction texts appeared to be beneficial to both younger and older students, however, exposure to fiction texts was also shown to be of benefit to the younger students in Study 2. There were differences across time in the type of learning that occurred. The findings support other studies (Caswell & Duke, 1998; Duke, 2000, 2003; Kletzien & Dreher, 2004; Moss, 1997; Soalt, 2005) that reported the use of nonfiction texts

with primary aged students had positive effects on their fiction reading comprehension.

The students showed greater improvements in their asTTle assessments which required them to use strategies such as locating information and picture cues while they found the contextual component of the cloze tests more challenging. It could be argued that picture cues were of particular assistance when completing the asTTle. Even though the students showed small improvements in the cloze assessments, these were not as noticeable as with the asTTle results. In Hong Kong, most teaching and assessments for L2 learners are grammatically rather than contextually based. L2 learners often have private tuition and hence, the grammatical emphasis tends to be very high. This may account for why the students appeared to have more difficulty with the contextual cloze.

Practical implications of this finding are that teaching in schools needs to focus specifically on reading in context, as this appears to be an area that the students found most challenging. In addition, the apparent beneficial exposure to nonfiction texts is consistent with published studies (Duke, 2000; Moss, 1997; Soalt, 2005) and, therefore, such materials should be included within reading programmes from an earlier age and maintained throughout the primary school

years.

5.5 Value of English language proficiency

The fourth key finding was the value students attached towards English language proficiency and their future careers. In response to the questionnaire question that asked if they feel it important to be able to communicate in English, one Year 2 student and five Year 6 students made reference to learning English as a means of improving their school grades or work opportunities. The findings are consistent with the research of Lai (2001; 2012) and Tung et al. (2007). In her 2001 study, Lai found over 50% of respondents considered English to be the most liked of the three official languages in Hong Kong to learn and, furthermore, the majority of students believed it had superior status. The respondents in Lai (2001) similarly stressed English to be of importance to future academic and career development. Likewise, Tung et al. (2007) reported L1 Cantonese students and parents believed English to be of great importance to future career advancement.

5.6 Limitations

The limitations of the studies are considered to be the following:

5.6.1 Intervention order. Study 2 was conducted to find out if intervention order had a greater effect on reading comprehension. For Studies 1

and 2, both interventions were implemented first and second, whereas in Study 3 the interventions were only implemented in one order. Test scores could, therefore, only be compared between Studies 1 and 2. A limitation of the quasi-experimental studies, however, was not being able to similarly compare whether the implementation order had a similar effect on Year 6 students. A further study exploring this would be valuable.

5.6.2 Sample sizes. Sample sizes were small. It was necessary for the intervention sessions to be implemented as after-school sessions and, therefore, student recruitment was voluntary and reliant upon parental consent. When each study commenced, the total number of recruited students ranged from 16 to 21 per study but these numbers were reduced by dropouts. The sample size must, therefore, be considered too small to be generalised to the wider population.

5.6.3 Number and scheduling of intervention sessions. Intervention sessions were limited to five. When planning the initial interventions in Study 1, the focus school's existing timetables and commitments (for example camps, school trips) were considered. It was necessary for some sessions to be conducted within school time in order for the pretest, five intervention sessions, and post test to be implemented in successive weeks. In addition, due to school holidays, the time period in-between the first and second part of the studies

varied and therefore, history was an internal validity threat.

5.6.4 Testing data. In Study 1, asTTle reading comprehension tests were only used and in Studies 2 and 3, additional cloze fiction and nonfiction reading comprehension tests were administered to supplement the data. The cloze testing data provided additional information in Studies 2 and 3 which was, therefore, not available in the first study.

5.6.5 Questionnaire data. The questionnaire data were found to be limited. Summative scales, such as Likert scales (Guthrie, 2010; Mertler & Charles, 2008) would have generated quantitative data, thus enabling total or mean scores to be compared.

5.6.6 Interviews. No interviews were conducted. Student interviews could have triangulated questionnaire and testing data.

5.7 Future Research

The research findings and study limitations have informed future research which is described as follows. The data analyses concluded intervention first resulted in higher gain scores and effect sizes for the younger students, but this could not be determined, however, for the Year 6 students. To ascertain whether the two interventions had a similar effect on older as well as younger students, a future comparative study to repeat the process is planned

for older students. The study design for this proposed research is shown in Figure 15. Two schools with similar profiles would be selected for comparison, for example, by school location, or both ESF or both private international schools. Whole year group cohorts would address the concerns of the reported studies' sample sizes and generalisbility of the results. Schools with at least two classes in each year group would only be considered in order for complete classes to be randomly assigned to one of the two interventions. Follow-up student interviews will be conducted to triangulate questionnaire and formal assessment responses and to provide greater depth to the studies. Similarly, interviews with parents could add further clarification to the research findings. Interviewing or surveying L2 English parents (L1 Chinese, plus other L1 backgrounds) on their reasons for sending their children to an EMI school, could generate data addressing issues of future academic/career aspirations and whether having children educated in an L2 environment could actually be of detriment to their L1. One final consideration will be adding the additional independent variable of linguistic background, as the students in international schools are from a number and variety of linguistic backgrounds which could have a bearing on the reading comprehension results.
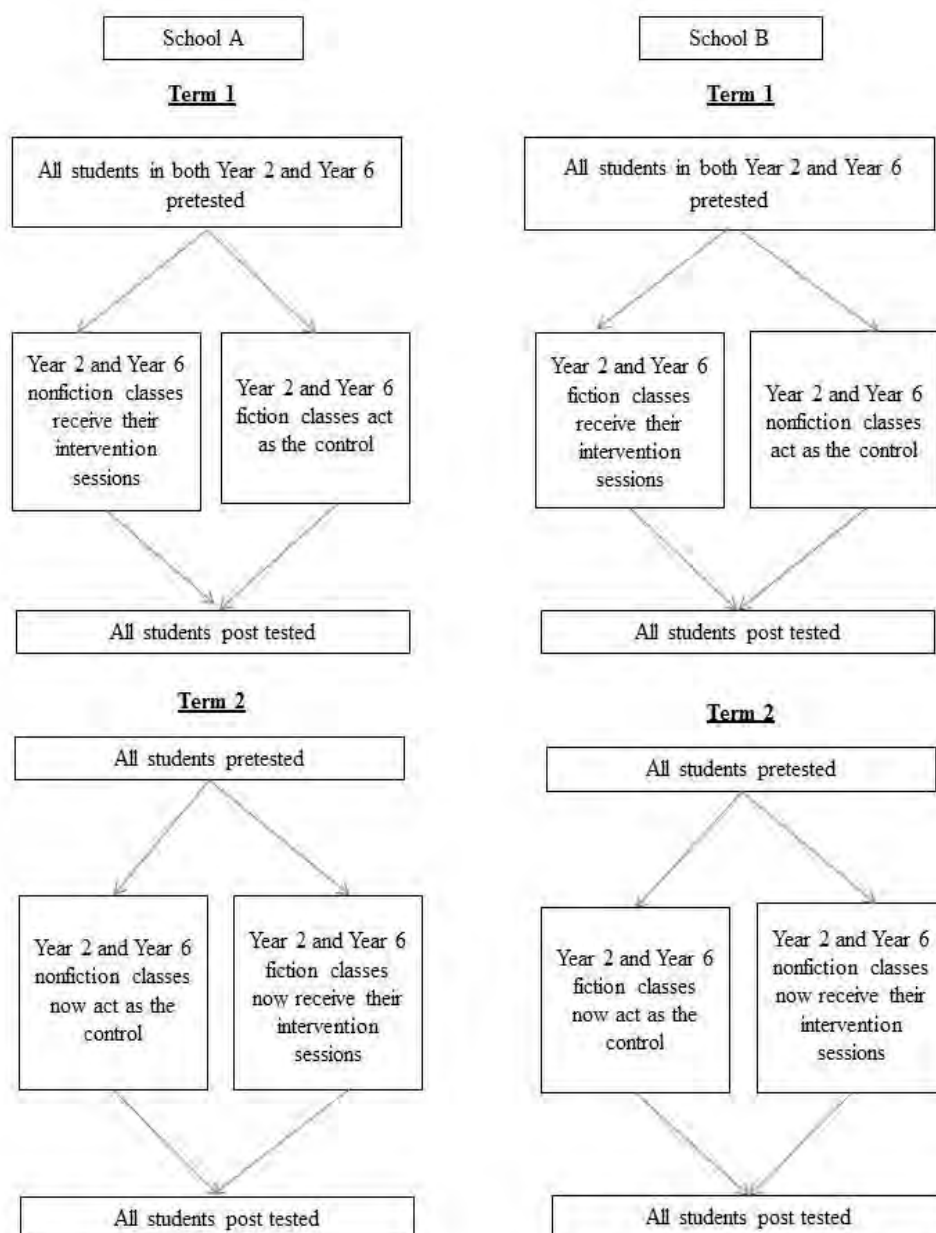
Figure 15. Flow chart representing a future study outline.

5.8 Conclusion

This research was conducted in a Hong Kong primary international school with students from six first language backgrounds. Published research conducted in Hong Kong has indicated that L1 Cantonese parents choose to send their children to EMI international schools rather than local schools to be immersed in English; to be taught using an international curriculum and by native English speaking teachers. Hong Kong studies have also reported that students are motivated by the desire to be proficient in English for their future schooling and careers either in Hong Kong or abroad. Questionnaire responses indicated that the majority of students in this research expressed their enjoyment and enthusiasm for learning in English and similar to other studies, were of the opinion being able to communicate in the language would be advantageous to them in the future. A number who were L1 Cantonese also commented how they found learning in English both enjoyable and easier compared to learning in Mandarin. Contrary to the results of this research, however, published studies have reported the concerns that Hong Kong universities and the business community have with regard to the general English proficiency of L1 Cantonese speakers and in particular, their lack of discipline specific and general academic vocabulary.

A review of the literature located studies which have been conducted in Hong Kong with regard to vocabulary levels and the strategies students use to cope with learning new words. The results of the questionnaire administered in this research found spellings to be the most common problem the younger and older students encounter. Similarly to published studies, the questionnaire found that students ask another person or use a dictionary to overcome their difficulties.

Few studies have been conducted on the reading comprehension of L1 and L2 English students in Hong Kong primary international schools. More specifically there is little that deals with the use of fiction and nonfiction texts in reading intervention programmes. Published research exists in other parts of the world, most notably in the United States, which have called for primary-aged students to be given more exposure to nonfiction content texts. While conclusive findings cannot be developed from this small-scale research, it is apparent that the reading comprehension of younger primary-aged students was positively increased by exposing them to nonfiction content materials. Both the younger students in Study 1 and the older in Study 2 showed a greater improvement in their reading comprehension objects when the intervention was based on nonfiction texts. The explicit teaching of vocabulary, however, was

also found to be beneficial, though, for the students in Study 2, as indicated by the asTTle and cloze test results. In order to ascertain whether there is a clear impact of explicit vocabulary teaching on reading comprehension, a longitudinal study is required. Although the nonfiction intervention was found to be more beneficial across both year groups, when asked in the questionnaire to indicate their preference in English reading books, the majority of students chose fiction content materials such as story books and adventure books.

Similarities exist between fiction and nonfiction texts, but there are also clear differences between the types of vocabulary and the structure/layout of the reading materials. Exposure to a variety of both genres has been shown in this research to be beneficial to students who are learning English as their mother tongue, or as a second or even third language. Intervention order for the younger students produced stronger effect sizes for earlier intervention on both testing measurements than for the older students. Critical age theories, therefore, could be relevant to both the first and second language older students. A longitudinal study is required, however, to confirm such a hypothesis.

It is recommended that primary international schools include both nonfiction and fiction input as part of their daily reading programme, especially in the early years where intervention seems to have the most impact.

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APPENDIX A
COPY OF INTIAL PERMISSION LETTER SENT TO PARENTS OF
YEAR 2 STUDENTS IN STUDY 1
NOTE. FOCUS SCHOOL LETTER HEAD AND EMAIL ADDRESSED
REMOVED FOR ANONYMITY

27th February, 2011

Dear Parents of Year 2 Students

I am in the final stages of completing some postgraduate research, the foci being the vocabulary and reading comprehension of primary aged children. It is hoped that the findings of the research will assist the school in the teaching and learning of these areas in the future.

I plan to teach skills relating to reading comprehension after school on either Mondays or Fridays (day to be confirmed) over a period of 14 weeks in total. Each session will last one hour and there will be no homework. I am planning to start in early April onwards. Children participating will be randomly selected into two foci groups that will either have a language focus (vocabulary related activities) or a curriculum focus (information text activities, for example, insects).

The children will be tested before the sessions begin and at the end to see if the content of the sessions has made a difference to their reading comprehension. I am writing to ask if you would be willing to recruit your child for the intervention please. At this stage, I would like to assure you that all data will remain completely confidential at all times, with no participating children being named.

If you are willing for your child to participate, please complete the reply slip below give to your child's class teacher, by Friday 11th March. If you have any questions, please feel free to speak to me or email me at: dsorrell@.................edu.hk

With many thanks and best regards
David Sorrell

---✂--
Reading Comprehension Intervention Programme: Year 2

Yes, I would be willing for my child _____ in Class _____ to participate in the reading comprehension intervention programme to be organised and taught by David Sorrell.

Please tick which day(s) of the week would be most convenient:
Mondays ☐ Fridays ☐
I understand that my child's participation in the intervention programme is entirely voluntary and that I can withdraw my child at anytime should I wish to.
Signed: _____ Date: _____

Summary

Test Identification

Name	Year 2 High Finding Inform
Date Created	06/03/2011 18:05
Last Modified	06/03/2011 18:08
Area	Reading
Status	Accepted
Sequence Number	00021

Content

Finding Information	33	**Knowledge**	3
Understanding	11	**Connections**	7
Inference	5	**Surface Features**	0

Difficulty

2B	6	**2P**	9	**2A**	4
3B	5	**3P**	2	**3A**	2
4B	0	**4P**	0	**4A**	0
5B	0	**5P**	0	**5A**	0
6B	0	**6P**	0	**6A**	0

Cognitive Processing

Surface	22	**Deep**	13

Slider Settings

Content		**Difficulty**	
Finding Information	Most	L2	Most

Scoring Guide

1	$10.00
2	Christchurch
3	b
4	7.30 pm
5	hall, cinema, shops All correct for one mark
6	a cross or lower case T shape
7	d
8	b
9	c
10	d
11	a
12	4, 2, 3, 1 All correct for one mark
13	The cupcakes have risen; the cupcakes are golden Both correct for 1 mark
14	Ingredients are flour, sugar, vanilla. Equipment includes bowl, pan, teaspoon, baking cup. 1 mark for correct "Ingredients" plus 1 mark for correct "Equipment" - maximum 2 marks
15	b
16	d
17	flipper - lower left box, fluke - lower right box, dorsal fin - upper box All correct for one mark
18	flippers, flukes, dorsal fin All correct for one mark
19	a blowhole O1
20	Just behind the eyes O1

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

21	All whales have - flukes, two front fins, two eyes. Some whales have - a dorsal fin, one blow hole (1 mark for each half of table), all = 1, some=1.
22	c
23	syrup, sugar, flavourings All correct for one mark
24	egg white, castor sugar Both correct for 1 mark
25	c
26	dates, figs Both correct for 1 mark
27	a
28	c
29	d
30	d
31	d
32	An eruption. Ruapehu erupted. The restless mountain burst into life. The volcano erupted in a spectacular display. They were treated to a rare sight - a volcanic eruption. 1 mark for any correct response
33	b
34	b
35	d

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

Read the information on the ticket and answer questions 1 to 4.

Terrace
Seat J5

Coca Cola Netball Cup

FLAMES VS STINGERS

Venue: Westpac Trust Centre
Jack Hinton Drive, Christchurch

Time: 7:30 pm
Date: Thursday 5/10/00
Cost: Child - $10·00

1. How much does this ticket cost?

    _____

2. In which city will the event take place?

    _____

3. Shade one bubble to show whether this sentence is **True** or **False**.

    This ticket can be used to see a football game.

    True ⬭   False ⬭

4. At what time does the event start?

    _____

- 4 -

Look at the map of a town named Rata and answer questions 5 to 10.

RATA
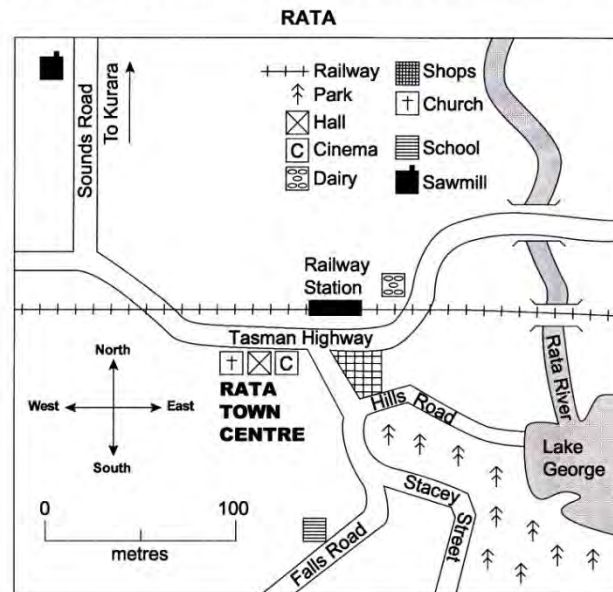
5. On the map, what do these symbols represent?

⊠ _____

C _____

▦ _____

6. What symbol on the map represents a church? Draw it in the square below.

- 5 -

7. The school is located on

    ○ Tasman Highway.
    ○ Stacey Street.
    ○ Hills Road.
    ○ Falls Road.

8. The location of the sawmill has probably been chosen so that it

    ○ overlooks the lake.
    ○ is away from the centre of town.
    ○ is inside the park.
    ○ has access to the river.

9. To get to Lake George from the school you need to travel
    along
    ○ Tasman Highway and Hills Road.
    ○ Falls Road and Stacey Street.
    ○ Falls Road and Hills Road.
    ○ Tasman Highway and Hills Road.

10. Which direction is the station from the railway bridge over Rata River?

    ○ north
    ○ south
    ○ east
    ○ west

Read the recipe and answer questions 11 to 16.

CUP CAKES
INGREDIENTS

1 cup flour

1 teaspoon baking powder

½ cup sugar

50 grams (2 ounces) butter or margarine

½ cup milk

1 egg

1 teaspoon vanilla

1. Turn oven to 190°C (375°F). Put paper liners in muffin pans.

2. Sift flour, baking powder, and sugar into bowl.

3. Put butter in small pan.

4. Melt gently— don't boil it.

5. Take off heat. Add milk, egg, vanilla. Mix.

6. Pour into flour mixture. Mix well.

7. Spoon into baking cups. Fill ¾ full.

8. Bake 10–15 minutes until risen and golden.

11. What is the reason for having pictures in the recipe?

○ to make it easier to follow the recipe
○ to make the information look more interesting
○ to explain the meaning of special words
○ to show you where to buy the ingredients

12. Write the numbers 1, 2, 3 and 4 in the boxes to show the correct order for making cup cakes.

bake   melt butter   add milk   sift flour

☐   ☐   ☐   ☐

- 7 -

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13. Which two things tell you **when** the cup cakes are cooked?

(i)_____

(ii)_____

14. Write the following words under the correct heading:

flour	bowl	pan	sugar
teaspoon	baking cup	vanilla	

Ingredients	Equipment

15. After all the ingredients are mixed together, you need to

- ○ boil the mixture.
- ○ spoon the mixture into baking cups.
- ○ melt the butter.
- ○ put paper liners into muffin pans.

16. This recipe requires the same amounts of

- ○ flour and baking powder.
- ○ vanilla and sugar.
- ○ butter and flour.
- ○ sugar and milk.

- 8 -

275

Read Whales and answer questions 17 to 21.

Whales

Whales are amazing creatures. For example, the Fin Whale is the second largest animal after the Blue Whale. It can grow up to 26 metres in length.

Fin Whale

twin blowholes

skin

mouth

eye ear

All whales have two front fins called flippers. They have two strong, flat tail fins called flukes, which are joined together. Many species of whale also have another fin on their backs. This is called a dorsal fin.

Whales have smooth leathery skin. Under the skin is a thick layer of fat called blubber.

Whales have two eyes, one on each side of the head, and they have two ears. The opening of each ear is a tiny hole, about the size of a pinhead, just behind the eyes. Some species of whale have a single nostril, or blowhole on top of the head. Other species have twin blowholes.

17. The following words are missing from the picture of the Fin Whale.
Write these words in the correct box on the picture

| flipper | | fluke | | dorsal fin |

18. Write one word on each line to complete the following sentences.

The front fins of a whale are called _____.

Tail fins are called _____.

The fin on the back of some whales is called the _____.

- 9 -

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19. What is a whale's nostril called? _____

20. Where are a whale's ears located?

_____

21. Complete the table by writing the following words under the correct heading.

| one blowhole | | two front fins | | a dorsal fin | | flukes | | two eyes |

ALL whales have	SOME whales have

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Read Handmade Sweets and answer questions 22 to 26.

Handmade Sweets

All sweets used to be made by hand. Long ago, people made their sweets by chopping sweet fruits such as dates or figs very finely and mixing them to a paste with honey. People still make sweets by hand, and you can make them at home. Crystallized flowers are made by brushing dry, edible flowers with egg white and dusting them with caster sugar. Cooked sweets, such as fudge, toffees and caramels, are simple and fun to make. Fudge is made from a syrup of sugar and flavourings. The syrup is heated until just a small amount of it, dropped into cold water, forms a soft ball. Then, the mixture is beaten. Toffees and caramels are heated for longer, until a small amount dropped into cold water snaps when it is broken.

22. The main purpose of this text is to tell you about making

   ○ syrup.
   ○ flowers.
   ○ sweets.
   ○ fudge.

23. Complete this sentence using words from the text.

   Fudge is made from a _____ which is made

   from _____ and _____ .

24. Tick the boxes to show which two things are needed to make crystallized flowers.

   ☐ egg white

   ☐ sweet fruits

   ☐ cold water

   ☐ liquid honey

   ☐ caster sugar

- 11 -

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25. Toffees and caramels are heated until

$\bigcirc$ the sugar is added.
$\bigcirc$ a small amount of syrup forms a soft ball when dropped into cold water.
$\bigcirc$ a small amount dropped into cold water snaps when it is broken.
$\bigcirc$ the mixture turns black.

26. Which two fruits are mentioned in this text?

(i) _____

(ii) _____

- 12 -

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Read Black Noddy and answer questions 27 to 30.

Black Noddy

Before the sun is up
you abandon your perch
and head towards the ocean
riding numerous waves
flying tirelessly
seeking food.

As the sun goes down
you return to your nest
lured by mating calls
faked on cassette
you swoop down unknowingly
ignorant of
being trapped
a victim
in the catcher's net.

by Makerita Vaai Nauru
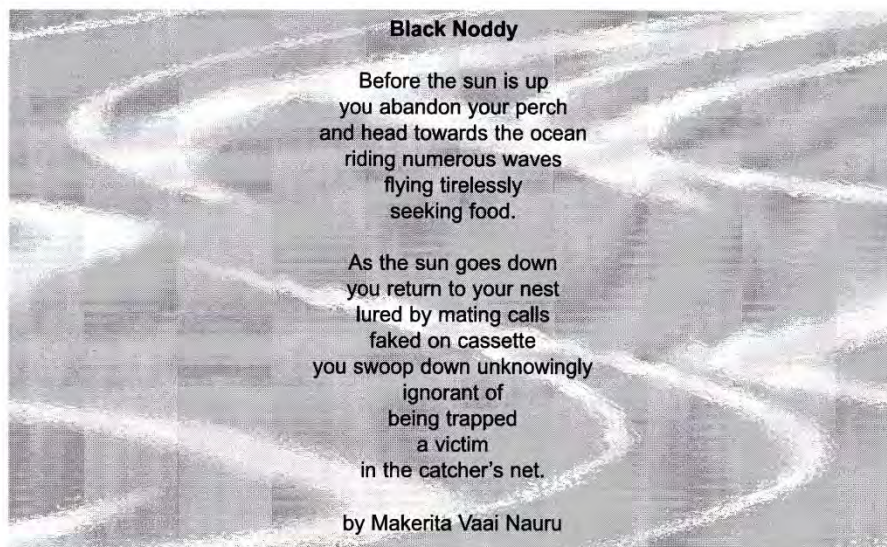
27. At what time of day does the Black Noddy begin to hunt?

○ before sunrise
○ just before dark
○ at midday
○ at night

28. What sounds are heard on the cassette?

○ the sounds of the ocean
○ birds flying over the ocean
○ imitations of bird calls
○ cries from trapped fish

29. Which of the following words is the best description of how the poet probably feels about the catcher?

○ supportive
○ apathetic
○ confused
○ angry

- 13 -

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30. A Black Noddy can be described as

○ a fish which is often caught in a net.
○ a fish which rides on the waves.
○ a bird which hunts and nests in the same location.
○ a bird which eats marine creatures.

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Read Ruapehu, from Karen Williams' book Ruapehu Erupts, to answer questions 31 to 35.

RUAPEHU

The Restless Mountain

In 1995 and 1996 volcano lovers were treated to a **touch of magic** from a volcano lying at the heart of the central North Island of New Zealand. In September 1995 Ruapehu, the restless mountain, burst into life. The raw power of the ensuing eruptions captured worldwide attention, as **towering** columns of **roiling** ash and steam, **torrential** mudflows and **incandescent** lava bombs presented an ongoing spectacle.

However, while locally spectacular, on a global scale and in terms of Ruapehu's formative history, this latest round of eruptions is insignificant. Mt St Helens' 1980 eruption was ten times bigger, and the climate-changing Philippine eruption of Mt Pinatubo in 1991 was up to 100 times larger than recent events at Ruapehu. But, unlike St Helens or Pinatubo, Ruapehu, the highest mountain in the North Island (2797 m), is an extremely popular outdoor playground, attracting hundreds of thousands of skiers, climbers and sightseers each year.

The volcanic trio of Ruapehu, Tongariro and Ngauruhoe, revered as places of power, are a part of the tribal identity of the Ngati Tuwharetoa and Ngati Rangi people who have lived in this area for centuries. In 1887, to protect these sacred mountains for all time, the paramount chief of Ngati Tuwharetoa, Te Heuheu Tukino IV presented them to the Crown on condition they be set aside as a national park.

Tongariro National Park, declared a World Heritage site in 1990, has become New Zealand's most-visited park. Slowly but steadily more people have settled in the area and a visitor-based industry has developed. The National Park and the Turangi-Tongariro area now rely increasingly on the skiers' dollar. But with the ski seasons in both 1995 and 1996 seriously disrupted by Ruapehu's restlessness, a new generation has had to come to terms with the true nature of active volcanoes-they are bound to erupt, and Ruapehu is no exception.

31. Which word in paragraph one means the same as "brightly shining"?

   ◯ torrential
   ◯ towering
   ◯ roiling
   ◯ incandescent

- 15 -

32. Explain the "touch of magic" that volcano lovers were treated to in 1995 –1996.

_____

33. Why was the impact of Ruapehu's eruption significant?

○ Ruapehu is the highest mountain in the North Island.
○ it disrupted a popular recreation and business area.
○ it was much smaller than the Mt Pinatubo and Mt St Helens eruptions.
○ it was the first recorded volcanic eruption in NZ.

34. What would be a good heading for paragraph three?

○ The Volcanic Trio
○ Significance to Maori
○ Te Heuheu Tukino IV
○ Tongariro National Park

35. What is the main purpose of this text?

○ to tell the story of Ruapehu's cultural importance.
○ to persuade readers not to visit the dangerous area around Ruapehu.
○ to explain how volcanoes work.
○ to report on the background of the recent eruptions.

APPENDIX C
asTTle TEST NUMBER 2 (STUDIES 1 AND 2)

Summary

Test Identification

Name	Year 2 High Knowledge
Date Created	06/03/2011 17:09
Last Modified	06/03/2011 17:12
Area	Reading
Status	Accepted
Sequence Number	00011

Content

Finding Information	15	**Knowledge**	22
Understanding	16	**Connections**	7
Inference	13	**Surface Features**	1

Difficulty

2B	4	2P	11	2A	7
3B	3	3P	4	3A	2
4B	1	4P	1	4A	0
5B	0	5P	0	5A	0
6B	0	6P	0	6A	0

Cognitive Processing

Surface	19	**Deep**	20

Slider Settings

Content		**Difficulty**	
Knowledge	Most	L2	Most

Scoring Guide

1	1992
2	b
3	Getting Started
4	c
5	text 1 to dot point 2, text 3 to dot 4, text 4 to dot 3 All correct for one mark
6	Tiny trainers
7	b
8	c
9	d
10	d
11	b
12	Kiri's grandmother, Nana, Mrs Niwa Any one of or similar scores 1 mark.
13	a
14	c
15	b
16	True, False, False, True All correct for one mark
17	Tick boxes 2 (message), 3 (an address for delivery), 7 (the name of the sender) All correct for one mark
18	a
19	(i) snorkel; (ii) mouthpiece; (iii) air tank All correct for one mark
20	6 3 4 All correct for one mark
21	(A) flipper, flippers; (B) belt; (C) mask; (D) torch All correct for one mark
22	a

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

23	c
24	d
25	a
26	Good thing the weather's been nice. So why would you pay $8?; feels like an 80 minute TV ad.; hard to display any less character than ...; a downright dumb movie Each correct response scores 1 mark - maximum 3 marks.
27	a
28	because this is a bad movie; you'd be better going to the park than seeing this movie; this movie is rubbish etc.; no good movies this summer
29	c
30	Taken away, seized. Either response 1 mark
31	d
32	d
33	It refers to the plan, campaign, or goal to build a skatebowl. 1 mark for a response that includes skatebowl
34	fed up
35	Because the writer didn't want to be harassed / attacked etc. He / she didn't want skateboarders to find out his / her identity. Either answer for 1 mark.
36	a
37	more, shore 1 mark for both correct words - order does not matter
38	d
39	d

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet. eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

asTTle

READING

First Name

Last Name

School Name

Room Number / Class

Test Id: 00011 Created 04/07/2011

Read Paper Superplanes and answer questions 1 to 7.

PAPER SUPERPLANES

Peter Holland and Kate Needham

Designed by Ian McNee

Illustrated by Angie Sage

Contents

2 Getting started
4 Square-o-plane
6 Delta wing
8 Flying squirrel
10 Tiny trainers
 (V jet, A10 Warthog)
12 Camber jet

14 Stunt bug
16 Seagull
18 Concorde
20 Sky rocket
22 Swing wing
24 Superglider
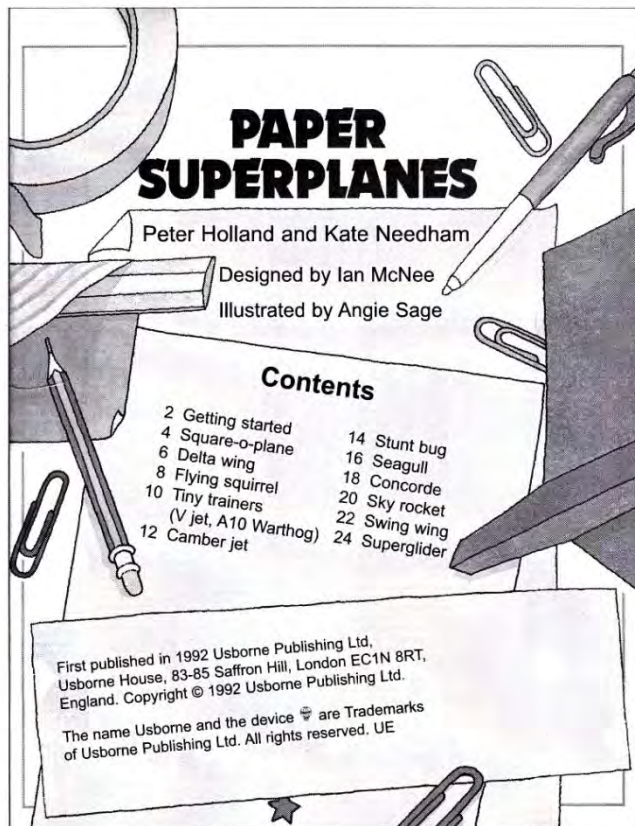
1. When was the book *Paper Superplanes* published? _____

2. Where would you normally find the contents page in a book?

   ○ on the back cover
   ○ near the front of the book
   ○ towards the end of the book
   ○ in the middle of the book

3. Write the name of the first chapter in the book.

   _____

4. The main purpose of a contents page is to

    ○ show the reader what the book is called.
    ○ tell the reader about the author.
    ○ help the reader find information in a book.
    ○ list the number of illustrations in a book.

5. Draw a line to connect each person or organisation to the activity they did when making this book. One has been done for you.

Usborne Publishing Ltd   • worked out how to make the planes.
Ian McNee   • published the book.
Peter Holland   • drew the pictures for the book.
Angie Sage   • wrote the text for the book.

6. Write the name of the chapter which gives you information about the V jet.

_____

7. The illustrations on the contents page show you

    ○ the type of paper needed to make a model plane.
    ○ the equipment you might need to make a paper plane.
    ○ how to make a paper model aeroplane.
    ○ what the model planes will look like.

- 5 -

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Here is a contents page from a book. Use it to answer questions 8 to 11.

CONTENTS

8. Where in a book would you normally find the contents page?

   ⬭ on the back cover
   ⬭ in the middle of the book
   ⬭ at the beginning of the book
   ⬭ at the end of the book

9. On which page are you most likely to find information about the ocean?

   ⬭ page 28
   ⬭ page 38
   ⬭ page 56
   ⬭ page 64

10. Which one of the following is **TRUE**?

   ⬭ All the writing on the contents page is in capital letters.
   ⬭ The book contains 64 pages.
   ⬭ The *Introduction* is on page 5.
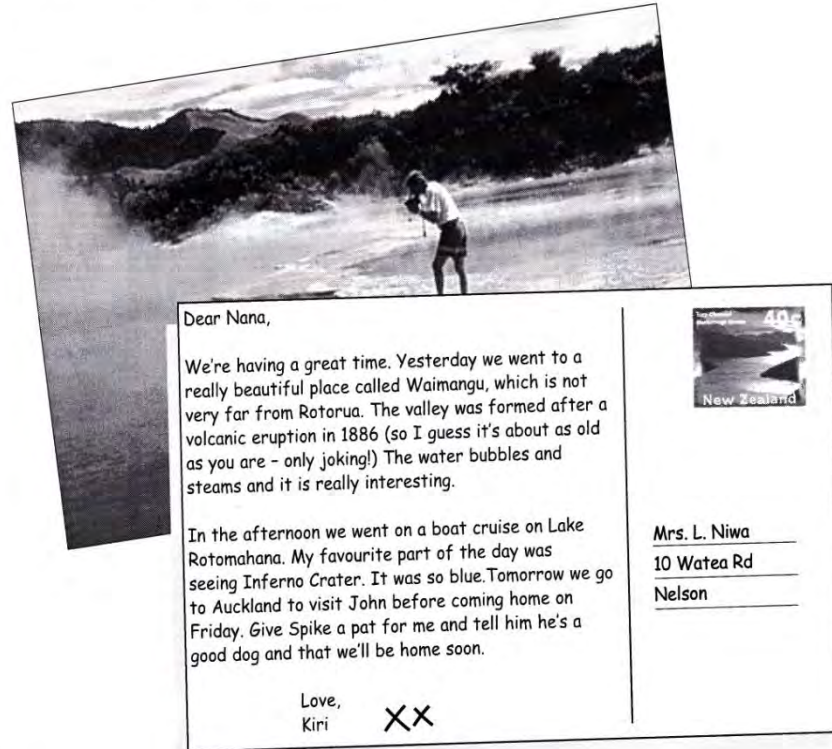   ⬭ Information about forests is found near the front of the book.

- 6 -

11. This contents page probably comes from a book about

   ○ people.
   ○ environments.
   ○ art.
   ○ travel.

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Read the postcard and answer questions 12 to 17.

Dear Nana,

We're having a great time. Yesterday we went to a really beautiful place called Waimangu, which is not very far from Rotorua. The valley was formed after a volcanic eruption in 1886 (so I guess it's about as old as you are – only joking!) The water bubbles and steams and it is really interesting.

In the afternoon we went on a boat cruise on Lake Rotomahana. My favourite part of the day was seeing Inferno Crater. It was so blue. Tomorrow we go to Auckland to visit John before coming home on Friday. Give Spike a pat for me and tell him he's a good dog and that we'll be home soon.

Love,
Kiri   ✗✗

Mrs. L. Niwa
10 Watea Rd
Nelson

12. Who has this postcard been sent to?

_____

13. Where did Kiri go yesterday?

⚬ to Waimangu
⚬ home
⚬ to Rotorua
⚬ on a boat cruise

- 8 -

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14. The best part of the day for Kiri was seeing

   ○ the volcanic eruption.
   ○ Lake Rotomahana.
   ○ the Inferno Crater.
   ○ the steaming water.

15. Why did Kiri use brackets around some words?

   ○ to show that she was giving instructions.
   ○ to show that she was trying to be funny.
   ○ to show that someone else was talking.
   ○ to show that she was giving an explanation.

16. Shade one bubble to show whether each of the following is **TRUE** or **FALSE**.

	TRUE	FALSE
• Spike is a dog.	○	○
• Kiri saw the volcano erupt.	○	○
• Waimangu is a long way from Rotorua.	○	○
• Kiri went on a boat.	○	○

17. Tick the boxes to show which of the following things were included on this postcard. The first one has been done for you.

✓	a stamp		the date
	a message		a return address
	an address for delivery		the name of the sender
	Mrs Niwa's signature		Kiri's address

- 9 -

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Read Scuba Diving and answer questions 18 to 23.

Scuba Diving

When you go scuba diving, it is important that you:

★ wear the right equipment
★ always dive with another person
★ know the hand signals to use under water
★ don't stay under water for too long
★ don't dive too deep
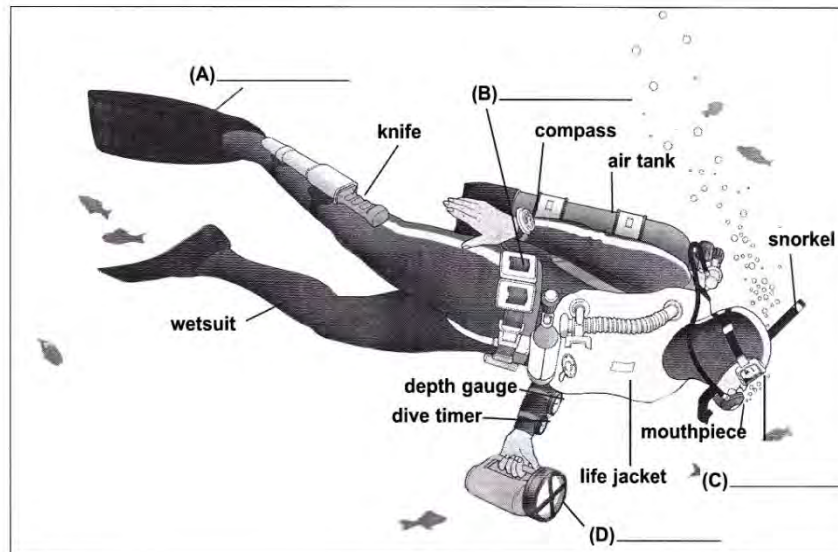
Hand Signals
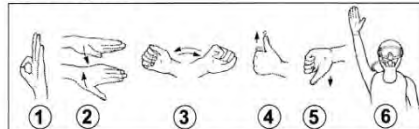
KEY: 1. OK, or are you OK?   4. Go up, or I'm going up
      2. Something wrong   5. Go down, or I'm going down
      3. Distress signal emergency 6. Stop, stay where you are

- 10 -

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18. Which **ONE** of the following statements is <u>TRUE</u>?

○ Hand signals help to keep divers safe underwater.
○ Divers wear their depth gauge on their leg.
○ All hand signals must be done with both hands.
○ The diver's torch is hanging from his belt.

19. List three pieces of equipment shown in the picture which a diver would use for breathing.

(i) _____

(ii) _____

(iii) _____

20. Look at the information about hand signals and write the numbers for these signals in the boxes below.

• Stop   ☐

• Emergency   ☐

• Go up   ☐

21. Choose four of the following words to fill in the missing spaces on the picture. Write one word on each line next to (A), (B), (C) or (D).
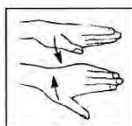
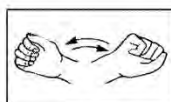| torch | mask | belt | flipper | watch |

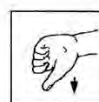22. Which of the following hand signals is used to ask a question?

○   ○   ○   ○

- 11 -

23. Which of the following is used as a label in the information?

○ **Scuba Diving**
○ ★ wear the right equipment
○ **compass**
○ **2. Something wrong**

296

Read movie Review A and answer questions 24 to 28.

REVIEW A

GADGET NEEDS A LOT OF TINKERING

There is virtually nothing to see in this **summer of spam. Good thing the weather's been nice.** *Inspector Gadget* is a downright dumb movie that, with its breathless pace, lack of character development and uninventive gags, might be torture for even the kids to sit through - although, at 80 minutes, it's thankfully a short ride.

So what to do? See *Phantom Menace* again? At least it had some positive messages for the young'uns. Or a second viewing of *Tarzan,* the only truly good offering this summer for children?

See you at the park. Because although *Tarzan* is indicative of a decade-long Disney resurgence in its animated films, *Inspector Gadget* is an example of the studio's live-action collapse. It would be hard to display any less character than Matthew Broderick does as Inspector Gadget.

Inspector Gadget is the feature debut for director David Kellogg, who has made a bundle shooting commercials for Nike and Fuji, among others. With its never-let-up pace, stale references to other movies, lack of plot or good characters and voluminous product placement, *Inspector Gadget* feels like an 80-minute TV ad. So why would you pay $5 or $8 a pop to see a commercial?

adapted from
G. Allen Johnson, *San Francisco Examiner*, July 23, 1999.

24. In the phrase "summer of spam", the word *spam* most likely means

○ canned meat.
○ junk e-mails.
○ comic book characters.
○ bad acting.

25. "A play on words" is a clever and funny use of words with more than one meaning. Which of the following phrases from the review is a "play on words"?

○ Gadget needs a lot of tinkering.
○ positive messages for the young'uns.
○ studio's live-action collapse.
○ voluminous product placement.

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26. Write 3 phrases from this review that show that the writer is critical of the film

   i) _____

   ii) _____

   iii) _____

27. The first review could best be described as

   ◯ cynical.
   ◯ comical.
   ◯ emotive.
   ◯ balanced.

28. Why do you think this reviewer says **"Good thing the weather's been nice"** and **"See you at the park"**?

   _____

   _____

   _____

- 14 -

Read Operation Skateboard and answer questions 29 to 35

Operation Skatebowl

In Mount Maunganui, the skateboarders had nowhere to ride. **They skated on footpaths and in car parks**, damaging the kerbs and annoying everyone. They didn't mean to cause trouble—but they did. When people started complaining, the skaties realised that if they wanted to keep riding, they'd have to help themselves. Instead of sitting around, they got together and started campaigning for a skatebowl. If they'd known it was going to take two years to reach their goal, they might never have set out to achieve **it**.

It all came to a head the day **Robert did an ollie heel sideslipper** in the supermarket car park. The security guard yelled "Out!" and **confiscated** his skateboard. **It was a while before the guard cooled off** enough for Robert to approach him, apologise and ask for his skateboard back. A few days later, Robert's mum saw a letter in the local paper.

> The Editor
> Bay of Plenty Times
> Tauranga
>
> Dear Sir
>
> I'm fed up with skateboarders. They zoom along footpaths, hang on to cars, and damage paving. If they ride in public places, someone will get hurt. Why don't they take their four-wheeled planks of wood and baggy pants and find somewhere else to ride!
>
> Yours sincerely
>
> Fed up
> (Mount Maunganui)

Robert and his friends realised that people were getting really upset. They didn't want the town to think they were just a bunch of troublemakers, so the next day, his friend Jake Mokomoko wrote his own letter to the newspaper.

> The Editor
> Bay of Plenty Times
> Tauranga
>
> Dear Sir
>
> It's not fair. Skaties have been banned from parks, banned from footpaths, banned from malls—banned from everywhere that's fun. **We don't want to cause trouble**. We just want somewhere to ride.
>
> Yours sincerely
>
> Jake Mokomoko
> (Mount Maunganui)

Jake's mum said, "If you skaties want somewhere to ride, then you'll have to do something about it."

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29. What is the most likely conclusion to *Operation Skatebowl*?

  ○ The skaties will confront the security guard.
  ○ Jake's mum will write to the editor of the local paper.
  ○ The skaties will plan action to get a skatebowl constructed.
  ○ The skaties will realise that skateboards should not be used in public.

30. What does the word *confiscated* mean?

  _____

31. The two letters are included in the story to

  ○ distort the facts around this incident.
  ○ prompt action by the authorities.
  ○ show that the skaties had acted irresponsibly.
  ○ summarise two views about skateboarding.

32. Which quotation reflects an attitude of the skaties?

  ○ *They skated on footpaths and in car parks*
  ○ *Robert did an ollie heel sideslipper*
  ○ *It was a while before the guard cooled off*
  ○ *We don't want to cause trouble*

33. To what does the *it* at the end of the first paragraph refer?

  _____

  _____

34. Which words from the letter from *Fed up* show you that he was angry?

  _____

35. Why do you think *Fed up* didn't use his or her real name on the letter?

  _____

  _____

Read The Fishermen's Boats and answer 36 to 39.

THE FISHERMEN'S BOATS

When the tide ebbs
  And the sands are dry,
The fishermen's boats
  All resting lie.

When the tide flows
  As it turns once more,
And fills with its waters
  The bay's wide shore,

While wild sea-horses
  Around them prance,
The fishermen's boats
  All rock and dance.

by Annie Wrench

36. The first two verses of the poem suggest that the tide is

  ⚬ going out and coming in.
  ⚬ overflowing the bay.
  ⚬ upsetting the fishermen.
  ⚬ tossing the boats.

37. Write down one pair of rhyming words from the second verse of the poem.

  _____ _____

38. Which word from the poem suggests that the **boats** are moving?

  ⚬ *resting*
  ⚬ *wild*
  ⚬ *prance*
  ⚬ *dance*

39. The wild sea-horses in the poem are most probably the

  ⚬ fishermen.
  ⚬ boats.
  ⚬ fish.
  ⚬ waves.

APPENDIX D
asTTle TEST NUMBER 3 (STUDIES 1 AND 2)

Summary

Test Identification	
Name	Year 2 High Finding Inform
Date Created	06/03/2011 17:52
Last Modified	06/03/2011 17:54
Area	Reading
Status	Accepted
Sequence Number	00018

Content			
Finding Information	32	Knowledge	0
Understanding	19	Connections	1
Inference	5	Surface Features	2

Difficulty					
2B	7	2P	13	2A	5
3B	2	3P	3	3A	0
4B	1	4P	1	4A	0
5B	0	5P	0	5A	0
6B	0	6P	0	6A	0

Cognitive Processing			
Surface	22	Deep	14

Slider Settings				
Content		Difficulty		
Finding Information	Most	L2	Most	

Scoring Guide

1	c
2	c
3	b
4	Richmond School Library
5	Nicki Dent
6	c
7	true, true, true, false, true, false All correct for one mark
8	a
9	a
10	c
11	d
12	orb web spiders / garden spiders 1 mark for either of these
13	c
14	b
15	c
16	a
17	c
18	To look at the car. The Car 4 Sale sign gave Sonny Anderson's name so she went to his house to look at the car. She had nothing better to do so she decided to go and see the car that Sonny had advertised in the sign.
19	b
20	a
21	b
22	d
23	c
24	a

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

25	Joseph
26	gesturing / calling with hand signals 1 mark for a correct response
27	b
28	a
29	Dust, hydrogen Both correct for 1 mark
30	c
31	gravity
32	Size. Colour Both correct for 1 mark
33	left to right numbered 3 4 2 5 1 All correct for one mark
34	b
35	b
36	d

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

as♪Tle

READING

First Name

Last Name

School Name

Room Number / Class

Test Id: 00018 Created 04/07/2011

Read Growing a Tree and answer questions 1 to 3.

GROWING A TREE

Trees are easy to grow. Collect some nuts or seeds and you can grow your own tree at home.

| 1. Fill a pot with soil. | 2. Push a seed into the soil | 3. Water the seed. Cover it with plastic. | 4. Wait for it to grow. |

1. In which step is a watering can used?

   ○ step 1
   ○ step 2
   ○ step 3
   ○ step 4

2. Which step tells you to do two things?

   ○ step 1
   ○ step 2
   ○ step 3
   ○ step 4

3. When do you plant the seed?

   ○ after you water the soil
   ○ before you cover it with plastic
   ○ before you fill the pot with soil
   ○ after you watch it grow

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306

Read the Library Overdue Notice and answer questions 4 to 7.

RICHMOND SCHOOL LIBRARY
OVERDUE NOTICE

To: Nicki Dent   Class: 4C

The following books are overdue:

See Ya, Simon	by David Hill	Due: 1/9/2000
Matilda	by Roald Dahl	Due: 1/9/2000
3...2...1...Bungy	by John Bonallack	Due: 25/8/2000

Please return the books to the library as soon as possible.

Elizabeth Johnson
(Librarian)

4. From which library were the books borrowed?

   _____

5. To whom was this notice sent?

   _____

6. Which of the books on loan was most overdue?

   ◯ *Matilda*
   ◯ *See Ya, Simon*
   ◯ *3...2...1...Bungy*

7. Which of the following are **True** or **False**?

	True	False
Nicki Dent is a student in 4C.	◯	◯
The school librarian sent the note.	◯	◯
John Bonallack wrote *3...2...1...Bungy.*	◯	◯
Matilda was due back on 25/8/2000.	◯	◯
The notice is for three overdue books.	◯	◯
See Ya, Simon was written by Roald Dahl.	◯	◯

- 5 -

Read Collecting Spiders' Webs and answer questions 8 to 13.

COLLECTING SPIDERS' WEBS

Garden spiders', particularly orb web spiders, make beautiful webs that can be collected.

Step 1

Find a web. Check there are no spiders on it. If there are no spiders go to step 2, if not find another web. Do not touch any spiders.

Step 2
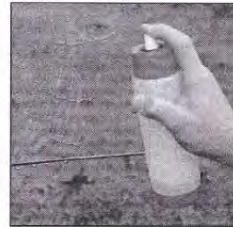
Spray it with hairspray. Any type will do. This will make the web sticky.

Step 3

Shake powder over the web to make the shape of the web easy to see. The powder will stick to the hairspray.

Step 4
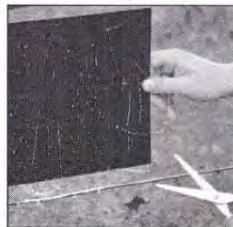
Then spray on more hairspray to make the powder stay in place. It will make the web even more sticky.

Step 5

Put a piece of cardboard behind the web. Using scissors, cut the web around the cardboard. The powdered web will stick to the cardboard. Using dark and colourful cardboard will help you to see the patterns more clearly. They will also make an attractive display.

- 6 -

8. Hairspray is first used in step

   ◯ 2.
   ◯ 3.
   ◯ 4.
   ◯ 5.

9. Which step gives the reader a warning?

   ◯ step 1.
   ◯ step 2.
   ◯ step 3.
   ◯ step 4.

10. What makes the spider web easy to see when its on the cardboard?

   ◯ the spider
   ◯ the hairspray
   ◯ the powder
   ◯ the scissors

11. Which activity is repeated in step 4?

   ◯ finding a web
   ◯ shaking the powder
   ◯ cutting the web
   ◯ spraying the hairspray

12. According to this text, which type of spiders *"make beautiful webs"*?

   _____

13. After you find a web you should

   ◯ spray it with hairspray
   ◯ shake on powder
   ◯ check for spiders
   ◯ press it onto cardboard

Read Anna's Bargain and answer questions 14 to 19.

Anna's Bargain

I got off my bike and walked along the footpath so that I could read all the notices in the dairy window.

Exciting! The Carpenters wanted a baby-sitter for the Kid for the holidays. I whistled when I saw how much they were willing to pay but it didn't tempt me. I'd rather face boredom than Kid Carpenter.

Then I saw something really interesting.

Car 4 Sale
$50 or nearest offer
Sonny Anderson

A car for fifty bucks! I had nothing to do so I went to take a look. It wasn't hard to pick out the fifty dollar car. What a wreck!

I leaned my bike on Sonny's fence, and his dog went crazy. "It's okay, Bullet," I growled at him. "I'm not going to steal this heap of junk".

Bullet kept barking but I ignored him and got on with my inspection. I looked pretty thoroughly – I mean, what else was there to do? It was a Morrie Thou—or it had been. I guess you could call it artistic, if you were kind. The bonnet was white, the boot black, the rest of it blue, apart from the orange hubcaps. Slices of rubber tube acted as hinges for the doors. A real designer car.

I walked around it, giving it a kick here and there. One of the orange hubcaps fell off. I jammed it back on and went on with the inspection. The back bumper was tied on too, but with wire, not rubber. There was only one seat in the car—I guess it was lucky that it happened to be the driver's. The windscreen wipers were half way across the windscreen—they made the car seem kind of surprised, as if it had raised eyebrows.

14. Before Anna looked at the car she

    ◯ patted the dog.
    ◯ parked her bike.
    ◯ made an offer.
    ◯ asked for permission.

15. The hubcaps came off when Anna

    ◯ opened the door.
    ◯ leant on the fence.
    ◯ kicked the car.
    ◯ walked around the car.

- 8 -

16. The major colour of the car is

○ blue.
○ white.
○ black.
○ orange.

17. According to the text, what caused Bullet to start barking?

○ Anna growled at Bullet.
○ Anna inspected the car.
○ Anna leaned her bike on the fence.
○ Anna ignored Bullet.

18. Why did Anna go to Sonny's house?

_____

_____

19. The main reason Anna was looking at the car was because

○ she wanted to buy a car.
○ she had nothing else to do.
○ Bullet wouldn't let her go.
○ it was an interesting wreck.

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311

Read Gull Rescue and answer questions 20 to 26.

Gull Rescue

Joseph bent and picked up his bag of shells, able to grasp them comfortably with two fingers while still holding the bird in his arms. "Might as well take them since the wind has blown my jacket away." He didn't look back at the waves, just half ran down the beach, cradling the bird against him.

The running and excitement and the worry had him panting as he burst through the gate of his grandfather's house. Then a terrible thought struck him. His grandfather had no pets. He might not like animals at all. He might refuse even to look at the bird. **What would he do then?**

He had to have someone to help him with the helpless injured creature. Grandad couldn't refuse. Inside his chest Joseph felt his heart pounding. Outside he could feel the warmth of the bird against his body. It stayed still, as birds do in dark, covered places.

His grandfather wasn't in the garden and Joseph panted through the back door to find him at the kitchen bench. He looked up at Joseph in surprise. "You never stay away long, do you?" Then, in puzzled tones, "It's not hot out there, is it? What are you doing with half your clothes—"

Joseph interrupted, holding out the jersey-wrapped bundle **as though he were offering a precious gift**. "I've got a bird, Grandad. An injured bird. Will you help me?"

"A bird, you say." His grandfather put down the knife and reached to wipe his hands on the kitchen towel. Joseph couldn't tell what the expression on his face indicated.

"You won't kill it, will you?" he pleaded. "It's a gull with a broken wing."

Joseph couldn't see his grandfather's eyes for he held a thumb on one temple while he rubbed his fingers of the same hand back and forth across his forehead. "A gull you say."

"Yes."

Bring it over here to the table." He reached out both hands, **beckoning**, and Joseph could see his whole face. He recognised concern in his grandfather's eyes and knew it was going to be all right.

20. Joseph took the bird to his grandfather because he

- ◯ needed his grandfather's help.
- ◯ wanted to surprise his grandfather.
- ◯ liked collecting unusual animals.
- ◯ was feeling cold without his jacket on.

21. When Joseph first arrived at the house he was anxious because his grandfather

    ⭕ was not home.
    ⭕ might not like animals.
    ⭕ would be angry that Joseph had lost his jacket.
    ⭕ did not want Joseph to come into the garden.

22. The phrase *as though he were offering a precious gift* tells us that Joseph held the bird

    ⭕ awkwardly.
    ⭕ jealously.
    ⭕ loosely.
    ⭕ gently.

23. When Joseph arrived home his grandfather was

    ⭕ in the garden.
    ⭕ at the gate.
    ⭕ in the kitchen.
    ⭕ at the back door.

24. Joseph was uncertain about what his grandfather would think about the bird until

    ⭕ he saw his grandfather's eyes.
    ⭕ his grandfather touched Joseph's forehead.
    ⭕ he saw his grandfather in the garden.
    ⭕ his grandfather put down the knife.

25. In the sentence *What would he do then?*, to whom does the word *he* refer?

    _____

26. In the last paragraph, Joseph's grandfather is beckoning with both hands.
    What does *beckoning* mean?

    _____

313

Read Twinkle Twinkle Star Colours and answer questions 27 to 33.

Stars come in many different sizes, temperatures and colours.

The Birth of a Star

Stars and planets were formed (and are still forming) from dusty hydrogen clouds in space. Billions and billions of these tiny bits of dust and hydrogen are pulled towards each other by gravity, and they squash together. As they squash in more and more tightly, they heat up.

If the amount of dust and hydrogen is large enough, it gets so hot that it fires up—in a huge nuclear reaction. It is then a star. However, because the star has so much gravity, it doesn't usually blow itself apart at this stage.

As a star grows older, it changes size and colour. Small stars have an orangey colour. Slightly bigger stars, like our sun, are more yellowish, and stars that ar   even bigger may look white. Some really big stars get about five times as hot as our Sun and look blue. After billions of years, a star will have used up its nuclear fuel, and it will start to cool down. At this stage, it will look red and be known as a red giant.

| small orange star | yellowish star | white star | blue star | red giant star |

Black Holes

In the end, a star either blows itself to pieces (a supernova), collapses down to become a small dead star (a white dwarf), or may, if it was very big to begin with, squash so far in on itself that it becomes what astronomers call a black hole.

Think about it. Next time you are awake on a clear night, look up at the sky. The stars may seem white, but you will know that really, the sky is filled with stars of different ages, temperatures and colours.

- 12 -

27. This information is mainly about the

- ○ history of astronomy.
- ○ appearance of stars.
- ○ composition of planets.
- ○ location of the Earth in space.

28. Based on this information, our Sun can be described as

- ○ a middle-sized star, which is yellowish in colour.
- ○ one of the hottest suns in the Universe.
- ○ being five times as hot as most other suns.
- ○ being on the verge of becoming a black hole.

29. According to the information, from which two things are stars formed?

(i) _____

(ii) _____

30. A supernova takes place when a star

- ○ collapses.
- ○ becomes a black hole.
- ○ blows up.
- ○ is being created.

31. According to the information, what usually prevents a newly formed star from blowing up?

_____

32. List two characteristics of a star which change as a star ages.

(i) _____

(ii) _____

33. Write the numbers 1, 2, 3, 4 and 5 in the boxes to rank these stars from smallest (1) to biggest (5).

yellow star	white star	orange star	red giant	white dwarf
☐	☐	☐	☐	☐

- 13 -

315

Read the letter to Greenpeace to answer questions 34 to 36.

GREENPEACE

Greenpeace is an independent organisation campaigning to ensure a just, peaceful, sustainable environment for future generations. It began in Canada in 1971 and today has a **presence in more than 40 countries** with 2.4 million supporters worldwide.

Wiremu Davis, a student who would like to become a member of Greenpeace, wrote the letter that follows.

Read the letter. Then answer the questions.

18 Rose Street
Porirua
Wellington
New Zealand
Tel 04 555 5555

21/06/02

Dear Greenpeace,

My name is Wiremu Davis. I am a full-time student enrolled in a Bachelor of Science degree in Marine Biology at Victoria University. I would like to join Greenpeace because **I believe that our fragile earth deserves a voice. It needs solutions. It needs change. It needs actions** - not words. I would like to be actively involved in protecting our environment.

My main interests are Antarctica and the protection of endangered species in New Zealand. I am currently a member of Save the Whales (an organisation that helps support the protection of whales around the world). I believe that the Greenpeace campaign to support a Southern Ocean Whale Sanctuary is one of the bravest and most important campaigns ever run. I am also a member of Operation Kiwi. I enjoy supporting these organisations through fundraising projects.

Please send me information about how to join Greenpeace and how to pay my membership subscription. I would also like to make a further donation to Greenpeace and will send a cheque for $10 when I join.

Yours faithfully,

Mr Wiremu Davis

- 14 -

34. What does Wiremu mean when he says "I believe that our fragile earth deserves a voice"?

  ◯ That Greenpeace is an unsuccessful advocate for the earth.
  ◯ That the earth needs to be defended and spoken up for.
  ◯ That discussing the earth's problems is beneficial.
  ◯ That the earth needs to protest about its treatment.

35. In the introductory paragraph, Greenpeace is described as having "a presence in more than 40 countries". This means that Greenpeace

  ◯ receives grants and financial gifts from those countries.
  ◯ has official headquarters and members in those countries.
  ◯ owns and occupies impressive buildings in those countries.
  ◯ maintains strong links with local governments in those countries.

36. Why, in paragraph two of his letter, did Wiremu put some information about Save the Whales in brackets?

  ◯ because he was unsure whether the information was reliable
  ◯ because he added the information as an afterthought to his letter
  ◯ because he wanted to impress Greenpeace with his knowledge about whales
  ◯ because he wanted to include some non-essential background formation

Summary

Test Identification	
Name	Year 2 High Knowledge
Date Created	06/03/2011 16:46
Last Modified	06/03/2011 16:49
Area	Reading
Status	Accepted
Sequence Number	00008

Content			
Finding Information	6	Knowledge	24
Understanding	16	Connections	3
Inference	11	Surface Features	10

Difficulty					
2B	2	2P	12	2A	9
3B	5	3P	0	3A	1
4B	0	4P	1	4A	0
5B	0	5P	0	5A	0
6B	0	6P	0	6A	0

Cognitive Processing			
Surface	20	Deep	12

Slider Settings			
Content		Difficulty	
Knowledge	Most	L2	Most

Scoring Guide

1	Patricia MacCarthy; P MacCarthy; MacCarthy; Patricia
2	Margaret Mahy; M Mahy; Margaret; Mahy
3	d
4	2 sees a sign, 4 goes into shop, 1 walking along road, 3 becomes excited All correct for one mark
5	Dog walker wanted
6	Because they are important words. So they can be easily seen. Because they are a heading. To attract attention 1 for any of these responses
7	b
8	c
9	a
10	c
11	b
12	d
13	Jack heard the rattle and hum of the engine. Jack experienced the thrill of flying. Jack ogled controls buzzing and flashing. All correct for one mark
14	c
15	c
16	d
17	c
18	b
19	b
20	c
21	b
22	a
23	b
24	b

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

25	their, they're, they've, there One mark for each correct answer
26	Shade bubbles 1, 2, 3, 6 All correct for one mark
27	Shade bubbles 1 and 4 Both correct for 1 mark
28	They are titles of songs
29	C, A
30	b
31	b
32	c

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet. eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

Assessment Tools for Teaching and Learning

asTTle

READING

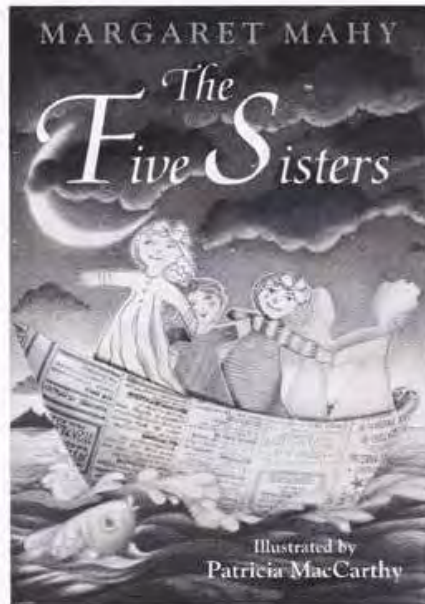**First Name**

Last Name

School Name

Room Number / Class

Test Id: 00008 Created 06/03/2011

Read the cover of the five sisters and answer questions 1 and 2.

THE FIVE SISTERS

1. Who drew the pictures for the story?

   _____

2. Who wrote the story **The Five Sisters**?

   _____

- 4 -

Read Jonah's Surprise and answer questions 3 to 6.

Jonah's Surprise

Jonah was walking along the road when he saw a sign in a shop window. The sign said:

WANTED
DOG WALKER
Elderly person seeks
Someone to walk two dogs
each afternoon.

Pay: $5 per day
Apply within

Jonah read the sign. Then he whispered, "Dog walker wanted."

His eyes flew to the bottom of the sign and with great excitement he exclaimed, "Five dollars a day!"

This job was just what Jonah was looking for so he went into the shop to apply.

3. Which of the following has the same meaning as the word *seeks*?

    ○ will help
    ○ likes to see
    ○ remembers
    ○ is looking for

4. Write the numbers 1, 2, 3 and 4 in the boxes to show the correct order of events in the story.

    ☐ He sees a sign in the shop window.　　☐ Jonah is walking along the road.

    ☐ Jonah goes into the shop.　　☐ He becomes excited.

5. What was the first thing Jonah said after he read the sign?

    _____

6. Why do you think the words WANTED and DOG WALKER were written in capital letters on the sign?

    _____

-5-

Choose the best words to complete the passage.

Tara had been to her tennis lesson after school. She decided to walk home the long way (7) _____ she needed time to think. As soon as she turned the corner at the end of her street, Tara knew that something unusual must (8) _____.

(9) _____ down the street, she could see (10) _____ a strange light seemed to be radiating from her house. All the windows and doors were wide open. What was (11) _____ disturbing was her dog, Pablo, sitting on the front verandah. This in itself was not unusual, but to Tara's amazement, Pablo appeared to have turned a vibrant shade of orange, and what's more, (12) _____ was glowing like a beacon in a lighthouse.

7			10		
		therefore			then
		because			what
		besides			that
		throughout			with

8			11		
		had happened			so much
		happened			even more
		have happened			very much
		has happened			also more

9			12		
		As she gazed			it
		She is gazing			they
		To gaze			that
		She will gaze			he

- 6 -

324

Read Wish and answer questions 13 to 15.

Wish

This is an extract from the novel *Wish* by Felice Arena.

Jack suddenly felt his eardrums go pop. He was so excited. For an instant, everything around him was blanketed in complete whiteness. All he could hear was the loud rattle and hum of the engine below his feet. He pressed his face up **against the tiny window beside him** to see streams of **raindrops racing across his reflection.**

"This is so cool!" he said, finding it difficult to contain his excitement. "What's this button for? And this one here?" he couldn't help but ask.

Suddenly, while Jack ogled the controls buzzing and flashing before him, the whiteness scattered to reveal **clear sunshine blue** as far as the eye could see.

"Unreal!! We're above the clouds!" Jack shouted. "It looks as if you could walk on them. To think it was grey and wet down below when we took off!"

Jack shook his head in **wonderment**. It was his first-ever plane ride.

"How high are we?" he asked, turning to the pilot seated beside him.

"About four thousand feet and still climbing," the pilot replied.

"This is cool!" repeated Jack, under his breath.

He looked over his shoulder to see his father smiling back at him. Sitting beside Jack's father, with his head buried in a newspaper, was Dr Smith. **Jack still couldn't believe it**. Sure he was only in a small four-seater plane, but still, how many thirteen-year-olds get the chance to sit in a cockpit and **experience the thrill of flying**?

13. Join the sentences to show what happened to Jack in the story.

Jack saw —————— • the whiteness scatter.
Jack heard • the thrill of flying.
Jack experienced • controls buzzing and flashing.
Jack ogled • the rattle and hum of the engine.

14. Which of the following words is closest in meaning to *wonderment*?

○ enjoyment
○ curiosity
○ amazement
○ disbelief

- 7 -

325

15. When a writer repeats the sounds at the beginning of words to create an effect it is known as alliteration. Which of the following is an example of alliteration?

- ○ *against the tiny window beside him*
- ○ *clear sunshine blue*
- ○ *raindrops racing across his reflection*
- ○ *experience the thrill of flying*

**Read *Just In Time* and choose the word that is closest in meaning
to the underlined words.**

Just In Time

One morning I awoke from a very (16) <u>contented</u> sleep. I suddenly realised that something
was burning. I tried frantically to open my bedroom window but it (17) <u>resisted</u> my efforts. A
momentary glance through the clouded glass was all that was (18) <u>necessary</u>. There on the
hills was a fiery monster. It had (19) <u>engulfed</u> the landscape and was racing towards our
farmhouse.

I have never moved so rapidly. I ran through the house to (20) <u>alert</u> the rest of the family to the
danger. My sister, who is usually timid, refused to leave until we had saved our pets. Mum
became (21) <u>agitated</u> but she did not argue. We had just enough time to locate our cat and
dog, bundle ourselves into our trusty, old truck and flee from the (22) <u>devastating</u> flames.

16 [ ] welcome
    [ ] thoughtful
    [ ] lengthy
    [ ] peaceful

17 [ ] located
    [ ] collected
    [ ] withstood
    [ ] wasted

18 [ ] expected
    [ ] needed
    [ ] likely
    [ ] possible

19 [ ] replaced
    [ ] swallowed
    [ ] included
    [ ] altered

20 [ ] withdraw
    [ ] wake
    [ ] warn
    [ ] worry

21 [ ] disappointed
    [ ] frantic
    [ ] occupied
    [ ] distracted

22 [ ] destructive
    [ ] determined
    [ ] extensive
    [ ] exceptional

327

23. **Circle the better of the underlined words to complete the sentence.**

The dog jumped **threw / through** the hole in the fence.

24. **Circle the better of the underlined words to complete the sentence.**

The farmer **herd / heard** that the price of cattle was rising.

25. **Choose the best word from the boxes to complete each sentence.**

| there | their | they're | they've | they'd |

The students will receive _____ awards when the competition is over.

I think _____ the best friends I have ever had.

If _____ got the time they will come and visit you after school.

Throw the ball over _____ and I will run and catch it.

26. **Shade the bubbles to show where capital letters are needed.**

(t)omorrow is (s)aturday and (i) am (g)oing to to (v)isit (r)angi.

27. **Shade the bubbles to show where capital letters must be.**

(t)he (b)and came to our (s)chool in (a)pril.

Read Crowded House and answer questions 28 to 32.

Crowded House

2 Young Neil became a true force to be reckoned with when he joined his big brother Tim's well-established band Split Enz in 1977 and furnished the hypnotic *I Got You*, the number one record of 1980. *One Step Ahead, History Never Repeats* and *Message To My Girl* documented the flowering of his songwriting skills.

3 Originally called the Mullanes (after Neil's middle name) **that outfit became Crowded House after enduring cramped conditions** in a rented Hollywood bungalow while recording their first album. A sense of fun was an integral aspect of their live performances.

4 Debuting with the 1986 *Crowded House* album, **the trio stormed the US top ten with the enduring *Don't Dream It's Over*** and *Something So Strong* and by 1992 were in the UK Top Ten with *Weather With You*. The third and fourth albums - *Woodface* (with Tim Finn), and *Together Alone* - both made the British top ten. This set up such a base of popularity that the 1996 hits collection *Recurring Dream* went to number one there, just as the much-loved band was bidding farewell before 150,000 fans on the steps of Sydney Opera House. A sad loss certainly, but those songs… they'll live forever. It's only natural.

1 Neil Finn is simply one of the most accomplished, emotive **songsmiths** in the world. His evocative, textured and structurally intriguing works possess an often-breathtaking sweep that draws and holds and lingers. Deft and inventive, **they** set new standards for the contemporary pop song.

- 11 -

329

28. Why are words such as *I Got You*, *Something So Strong* and *Weather With You* all written in *italics*?

_____

_____

29. Read the online dictionary definitions below and answer questions a and b.
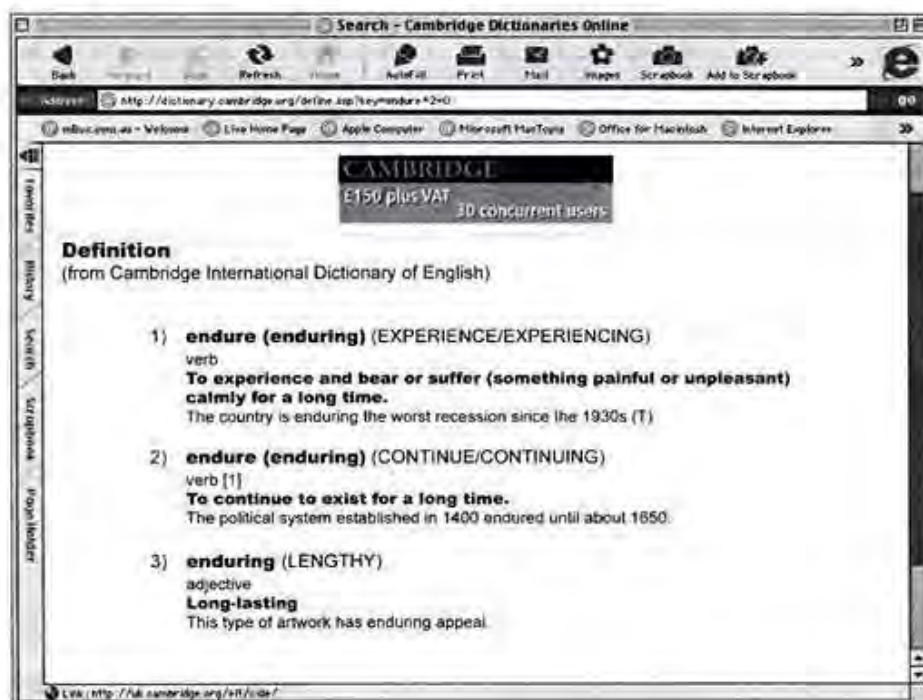
a) Which definition best fits the use of the word *enduring* in "the trio stormed the US top ten with the enduring *Don't Dream It's Over* ... "?

  ◯ 1   ◯ 2   ◯ 3

b) Which definition best fits the use of the word *enduring* in "that outfit became Crowded House after enduring cramped conditions"?

  ◯ 1   ◯ 2   ◯ 3

30. The **first paragraph** focuses on

   ⬭ outlining the rise to fame of Crowded House.

   ⬭ paying tribute to the talents of Neil Finn.

   ⬭ explaining the motivation behind Neil Finn.

   ⬭ detailing the success of Crowded House.

31. Describing Neil Finn as a "**songsmith**" rather than as a "songwriter" gives the impression that Neil Finn's music

   ⬭ is unique and carries significant meaning.
   ⬭ has been crafted rather than produced.
   ⬭ is written for a serious audience.
   ⬭ is representative of everyday people.

32. Which was the first album released by Crowded House?

   ⬭ *I Got You*
   ⬭ *Don't Dream It's Over*
   ⬭ *Crowded House*
   ⬭ *Message to My Girl*

- 13 -

331

Summary

Test Identification

Name	Y6_someSF_someFI_someKn3/4
Date Created	21/09/2011 20:10
Last Modified	21/09/2011 20:13
Area	Reading
Status	Accepted
Sequence Number	00167

Content

Finding Information	15	Knowledge	8
Understanding	12	Connections	1
Inference	10	Surface Features	12

Difficulty

2B	0	2P	4	2A	0
3B	7	3P	3	3A	3
4B	2	4P	4	4A	1
5B	0	5P	0	5A	0
6B	0	6P	0	6A	0

Cognitive Processing

Surface	20	Deep	11

Slider Settings

Content		Difficulty	
Finding Information	Some	L3	Many
Knowledge	Some	L4	Many
Surface Features	Some		

Scoring Guide

1	d
2	Kiri's grandmother, Nana, Mrs Niwa Any one of or similar scores 1 mark.
3	a
4	c
5	True, False, False, True All correct for one mark
6	Tick boxes 2 (message), 3 (an address for delivery), 7 (the name of the sender) All correct for one mark
7	b
8	b
9	large, stately Both correct for 1 mark
10	a
11	their, they're, they've, there One mark for each correct answer
12	It was late when Erin arrived at the farm. All correct for one mark
13	My birthday is in March. 1 mark for sentence all correct. Must have M M
14	"How long is it until lunch time?" asked Polly. 1 mark if sentence is all correct. Must have " H ? " P .
15	"Watch out!" shouted the firefighter. 1 mark if sentence is all correct. Must have " W ! "
16	"Can I please have a look?" asked Sarah. 1 mark if sentence is all correct. Must have " C ? " S
17	"Will you please buy some bread, milk, eggs and cheese?" asked Jim. 1 mark if sentence is all correct. Must have quote marks before Will and after cheese?; capitals on Will & Jim; commas after bread and milk; question mark after cheese.
18	a

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

as*TT*le

READING

First Name

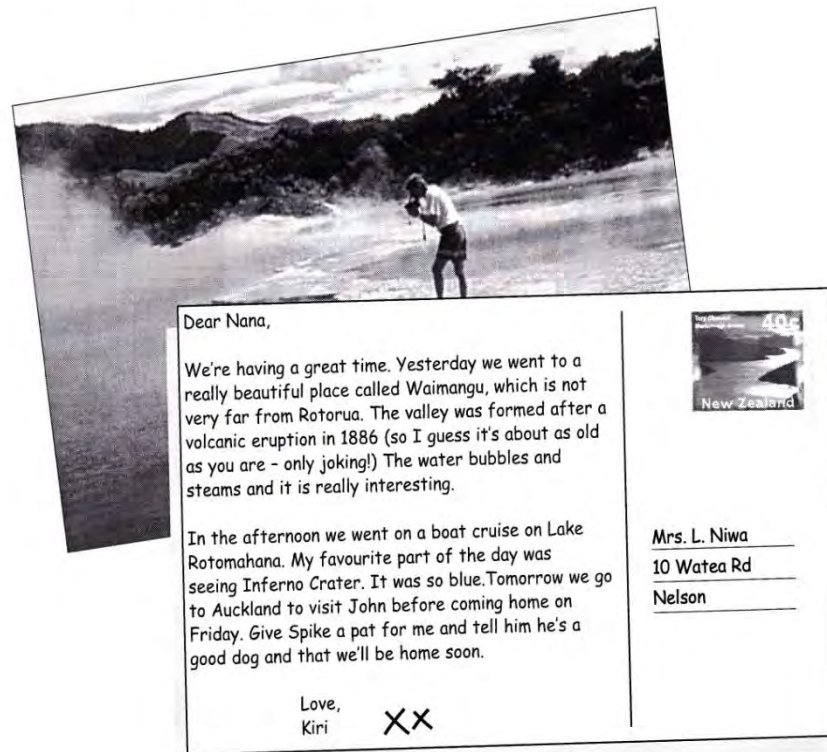**Last Name**

School Name

Room Number / Class

Test Id: 00167 Created 21/09/2011

eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

Read the postcard and answer questions 1 to 6.

Dear Nana,

We're having a great time. Yesterday we went to a really beautiful place called Waimangu, which is not very far from Rotorua. The valley was formed after a volcanic eruption in 1886 (so I guess it's about as old as you are – only joking!) The water bubbles and steams and it is really interesting.

In the afternoon we went on a boat cruise on Lake Rotomahana. My favourite part of the day was seeing Inferno Crater. It was so blue. Tomorrow we go to Auckland to visit John before coming home on Friday. Give Spike a pat for me and tell him he's a good dog and that we'll be home soon.

Love,
Kiri XX

Mrs. L. Niwa
10 Watea Rd
Nelson

1. Where will Kiri visit John?

   ○ Rotorua
   ○ Waimangu
   ○ Rotamahana
   ○ Auckland

2. Who has this postcard been sent to?

_____

- 4 -

335

3. Where did Kiri go yesterday?

   ○ to Waimangu
   ○ home
   ○ to Rotorua
   ○ on a boat cruise

4. The best part of the day for Kiri was seeing

   ○ the volcanic eruption.
   ○ Lake Rotomahana.
   ○ the Inferno Crater.
   ○ the steaming water.

5. Shade one bubble to show whether each of the following is **TRUE** or **FALSE**.

		TRUE	FALSE
•	Spike is a dog.	○	○
•	Kiri saw the volcano erupt.	○	○
•	Waimangu is a long way from Rotorua.	○	○
•	Kiri went on a boat.	○	○

6. Tick the boxes to show which of the following things were included on this postcard. The first one has been done for you.

   ✓ a stamp   ☐ the date

   ☐ a message   ☐ a return address

   ☐ an address for delivery   ☐ the name of the sender

   ☐ Mrs Niwa's signature   ☐ Kiri's address

- 5 -

336

Read the following poem and answer questions 7 to 10.

Seafood

A sardine is thin and small
And combats hunger not at all,
A whale is large and rather stately
And fills one up quite adequately.

by Michael Dugan

7. Sardines and whales are compared in this poem by describing their

   ○ colour.
   ○ size.
   ○ movement.
   ○ diet.

8. In which book would you most likely find this poem?

   ○ *Life in Rock Pools*
   ○ *Sea Verses*
   ○ *Legends from Aotearoa*
   ○ *Incredible Creatures*

9. Adjectives are describing words.

   Write two adjectives that have been used in this poem to describe a whale.

   (i) _____

   (ii) _____

10. This poem could best be described as

    ○ playful.
    ○ serious.
    ○ factual.
    ○ emotional.

- 6 -

337

11. **Choose the best word from the boxes to complete each sentence.**

| there | their | they're | they've | they'd |

The students will receive _____ awards when the competition is over.

I think _____ the best friends I have ever had.

If _____ got the time they will come and visit you after school.

Throw the ball over _____ and I will run and catch it.

12. **Rewrite the sentence on the line provided using the correct punctuation (capital letters and punctuation marks).**

it was late when erin arrived at the farm

_____

13. **Rewrite the sentence using the correct punctuation (capital letters and punctuation marks).**

my birthday is in march.

_____

14. **Rewrite the sentence on the line provided using the correct punctuation (capital letters and punctuation marks).**

how long is it until lunch time asked polly

_____

15. **Re-write the sentence on the line provided using the correct punctuation (capital letters and punctuation marks).**

watch out shouted the firefighter

_____

- 7 -

16. **Rewrite the sentence using the correct punctuation (capital letters and punctuation marks).**

can I please have a look asked sarah

_____

17. **Re-write the sentence on the lines provided using the correct punctuation (capitals letters and punctuation marks).**

will you please buy some bread milk eggs and cheese asked jim

_____

_____

339

Read The Tuatara and answer questions 18 to 20.

THE TUATARA

The Tuatara is the **sole survivor** of a group of reptiles. Amazingly, it has existed for 200 million years. The Tuatara is unique to New Zealand. It can only be found on some small islands. One of these islands is Stephens Island in the Marlborough Sounds. You need special permission to visit Stephens Island.

Some specimens are protected in places such as the Wellington Zoo, Otorohanga Kiwi House, and also at Southland Museum in Invercargill, where they have been successfully bred.

What a Tuatara looks like	What a Tuatara eats	Tuatara facts
• The Tuatara looks like a lizard, but is not. • The Tuatara grows up to 60 cm in length. • The Tuatara has a strong skull. • The Tuatara has a primitive backbone. • The Tuatara has a third "eye".	• Spiders • Beetles • Earthworms • Birds' eggs • Chicks	• The Tuatara is a reptile. • The Tuatara does not breed until after it is 20 years old. • The Tuatara may live for well over 100 years. • The Tuatara remains in a burrow for most of the day.

The Tuatara's most fascinating feature is its third "eye". This occurs in many species of lizard too. Externally, it looks like a tiny spot on top of the animal's head. There is a cluster of light-sensitive cells situated on top of its brain, just below a small hole in the skull.
This third "eye" probably serves to regulate the Tuatara's exposure to the sun and so regulate its body temperature.

- 9 -

340

18. Under which heading in the table would you be most likely to add the following information? **The Tuatara has strangely-shaped ribs.**

- ○ *What a Tuatara looks like*
- ○ *What a Tuatara eats*
- ○ *Tuatara facts*

19. The Tuatara has been successfully bred at

- ○ Wellington Zoo.
- ○ Southland Museum.
- ○ Otorohanga Kiwi House.
- ○ Marlborough Sounds.

20. What does the term *sole survivor* mean?

_____

- 10 -

341

Read The Fishermen's Boats and answer 21 to 24.

THE FISHERMEN'S BOATS

When the tide ebbs
    And the sands are dry,
The fishermen's boats
    All resting lie.

When the tide flows
    As it turns once more,
And fills with its waters
    The bay's wide shore,

While wild sea-horses
    Around them prance,
The fishermen's boats
    All rock and dance.

by Annie Wrench

21. The wild sea-horses in the poem are most probably the

    ◯ fishermen.
    ◯ boats.
    ◯ fish.
    ◯ waves.

22. Write the numbers 1, 2, 3 and 4 in the boxes to show the correct order for the events in the poem.

    ☐   The tide turns.

    ☐   The boats toss on the water.

    ☐   The tide is out and the boats are still.

    ☐   The water of the bay reaches the shore.

23. To what does the *its* refer in the line *And fills with its waters*?

_____

342

24. Every second line of this poem is indented. Why do you think the poet chose to do this?

_____

_____

_____

_____

343

Read Crowded House and answer questions 25 to 28.

Crowded House

(2) Young Neil became a true force to be reckoned with when he joined his big brother Tim's well-established band Split Enz in 1977 and furnished the hypnotic *I Got You*, the number one record of 1980. *One Step Ahead*, *History Never Repeats* and *Message To My Girl* documented the flowering of his songwriting skills.

(3) Originally called the Mullanes (after Neil's middle name) **that outfit became Crowded House after enduring cramped conditions** in a rented Hollywood bungalow while recording their first album. A sense of fun was an integral aspect of their live performances.

(4) Debuting with the 1986 *Crowded House* album, **the trio stormed the US top ten with the enduring *Don't Dream It's Over*** and *Something So Strong* and by 1992 were in the UK Top Ten with *Weather With You*. The third and fourth albums - *Woodface* (with Tim Finn), and *Together Alone* - both made the British top ten. This set up such a base of popularity that the 1996 hits collection *Recurring Dream* went to number one there, just as the much-loved band was bidding farewell before 150,000 fans on the steps of Sydney Opera House. A sad loss certainly, but those songs… they'll live forever. It's only natural.

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- 13 -

344

27. What does the word "they" refer to in the first paragraph?

_____

_____

28. Which was the first album released by Crowded House?

○ *I Got You*
○ *Don't Dream It's Over*
○ *Crowded House*
○ *Message to My Girl*

- 15 -

345

Read The Spirit of Adventure and answer questions 29 to 31.

The Spirit of Adventure

The Spirit of Adventure Trust is a community-focused organisation dedicated to the youth of New Zealand. Each year it brings together around 1200 young people throughout the country from a range of cultural, social and religious backgrounds and offers them **equal opportunity** to develop qualities of leadership, independence and community spirit through the medium of the sea.

The **flagship** of the Trust, STS Spirit of New Zealand, offers various voyages. The focus of these voyages is as much on developing individuals and their team skills as it is on learning to sail. One of the most popular voyages offered by the Trust is the Youth Development Voyage, which lasts ten days. The voyage is designed for young people aged from 15-19 years who are in full-time education (at school, polytechnic, university or other educational establishment) and who are looking for excitement, friendship, personal development and a great time!

STS Spirit of New Zealand sails all year round. Voyages may begin and end at any of the major ports in New Zealand. Each voyage will usually have activities based on board ship, on small craft and on shore. The voyage may include a **coastal passage**, or may begin and end in the same port. The Trust has a **travel equalisation scheme**, which means that any voyage is open to any student no matter where they may live. To ensure equal access, the Trust pays for travel (bus/ferry) for any trainees who are more than 150 kilometres radius from the ports of arrival and departure.

A Youth Development Voyage is not free to participants but the Trust subsidises each trainee so that the actual fee payable is limited. Those who wish to sail are encouraged to approach community organisations for financial support so that their costs may be subsidised further. Approaching local businesses can provide good sources of **supplementary** funding for trainees. In addition, the John Wallace Memorial Trust can support applicants in serious financial need.

Each year many young New Zealanders from all walks of life take the opportunity to sail on the Spirit of New Zealand and find friendship, courage, confidence and excitement. Together on the sea, they become rich in experience and knowledge of themselves and each other.

adapted from http://www.spiritofadventure.org.nz/

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346

Scoring Guide

1	c
2	a
3	c
4	To look at the car. The Car 4 Sale sign gave Sonny Anderson's name so she went to his house to look at the car. She had nothing better to do so she decided to go and see the car that Sonny had advertised in the sign.
5	b
6	d
7	b
8	The windscreen wipers were half way across the windscreen, they made the car seem surprised, as if it had raised eyebrows.
9	a
10	ESTUARY --- crabs, fish, prawns BEACH --- sea anemones, limpet, seastar. all correct for 1 mark
11	c
12	(i) School children / children (ii) Illustration contains children in picture / child like pun / cartoon type presentation Audience AND an example must be provided for 1 mark
13	b
14	d
15	c
16	d
17	gesturing / calling with hand signals 1 mark for a correct response
18	d
19	hunts; flies; rides waves; abandons its perch; heads towards the ocean 1 mark for one, two or three correct responses; 2 marks for 4 correct responses; Maximum 2 marks
20	d

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

21	It was trapped by a hunter, caught in a net, it was killed, it was kept as a prize, it was kept to show it off etc. 1 mark for a response which shows surface understanding; 2 marks for a response which indicates a deeper understanding; Maximum 2 marks
22	b
23	Black Noddy, the bird 1 mark for either of these
24	c
25	d
26	It refers to the plan, campaign, or goal to build a skatebowl. 1 mark for a response that includes skatebowl
27	fed up
28	Because the writer didn't want to be harassed / attacked etc. He / she didn't want skateboarders to find out his / her identity. Either answer for 1 mark.
29	a
30	Shane
31	Memories from the past
32	b
33	b
34	b
35	b
36	b
37	c Note: a=top left, b=top right, c=bottom left, d=bottom right
38	flow
39	2,1, 3,4 all correct for 1 mark

Instructions:

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Questions not answered: Enter a dash (-).

Assessment Tools for Teaching and Learning

as♩♩le

READING

First Name

Last Name

School Name

Room Number / Class

Test Id: 00180 Created 21/09/2011

Read Anna's Bargain and answer questions 1 to 8.

Anna's Bargain

I got off my bike and walked along the footpath so that I could read all the notices in the dairy window.

Exciting! The Carpenters wanted a baby-sitter for the Kid for the holidays. I whistled when I saw how much they were willing to pay but it didn't tempt me. I'd rather face boredom than Kid Carpenter.

Then I saw something really interesting.

Car 4 Sale
$50 or nearest offer
Sonny Anderson

A car for fifty bucks! I had nothing to do so I went to take a look. It wasn't hard to pick out the fifty dollar car. What a wreck!

I leaned my bike on Sonny's fence, and his dog went crazy. "It's okay, Bullet," I growled at him. "I'm not going to steal this heap of junk".

Bullet kept barking but I ignored him and got on with my inspection. I looked pretty thoroughly – I mean, what else was there to do? It was a Morrie Thou—or it had been. I guess you could call it artistic, if you were kind. The bonnet was white, the boot black, the rest of it blue, apart from the orange hubcaps. Slices of rubber tube acted as hinges for the doors. A real designer car.

I walked around it, giving it a kick here and there. One of the orange hubcaps fell off. I jammed it back on and went on with the inspection. The back bumper was tied on too, but with wire, not rubber. There was only one seat in the car—I guess it was lucky that it happened to be the driver's. The windscreen wipers were half way across the windscreen—they made the car seem kind of surprised, as if it had raised eyebrows.

1. The hubcaps came off when Anna

   ○ opened the door.
   ○ leant on the fence.
   ○ kicked the car.
   ○ walked around the car.

2. The major colour of the car is

   ○ blue.
   ○ white.
   ○ black.
   ○ orange.

- 4 -

3. According to the text, what caused Bullet to start barking?

- ⬭ Anna growled at Bullet.
- ⬭ Anna inspected the car.
- ⬭ Anna leaned her bike on the fence.
- ⬭ Anna ignored Bullet.

4. Why did Anna go to Son y's house?

_____

_____

5. The main reason Anna was looking at the car was because

- ⬭ she wanted to buy a car.
- ⬭ she had nothing else to do.
- ⬭ Bullet wouldn't let her go.
- ⬭ it was an interesting wreck.

6. Which of the following statements is **TRUE** ?

- ⬭ The back bumper was tied on with rubber.
- ⬭ Anna was going to babysit Kid Carpenter during the holidays.
- ⬭ The car had only one hubcap.
- ⬭ The doors on the car were blue.

7. From this passage, we get the idea that looking after Kid Carpenter would be

- ⬭ exciting.
- ⬭ a difficult job.
- ⬭ worth the money.
- ⬭ better than being bored.

8. Write the words from the story that compare the car to a person.

_____

Read Estuaries and Beaches and answer questions 9 to 12.

ESTUARIES

The place where a river meets the sea is called an estuary. The water is **brackish**, which means that it is not salty like the sea and it is not fresh like drinking water. It is somewhere in-between.

When the tide is out and the water is low, crabs **scuttle** around looking for food in the mud. Oysters and mussels close up their shells so they do not dry out. When the tide is in and the water is high, the crabs hide in their muddy burrows. The oysters and mussels open their shells and filter the water for small pieces of food.
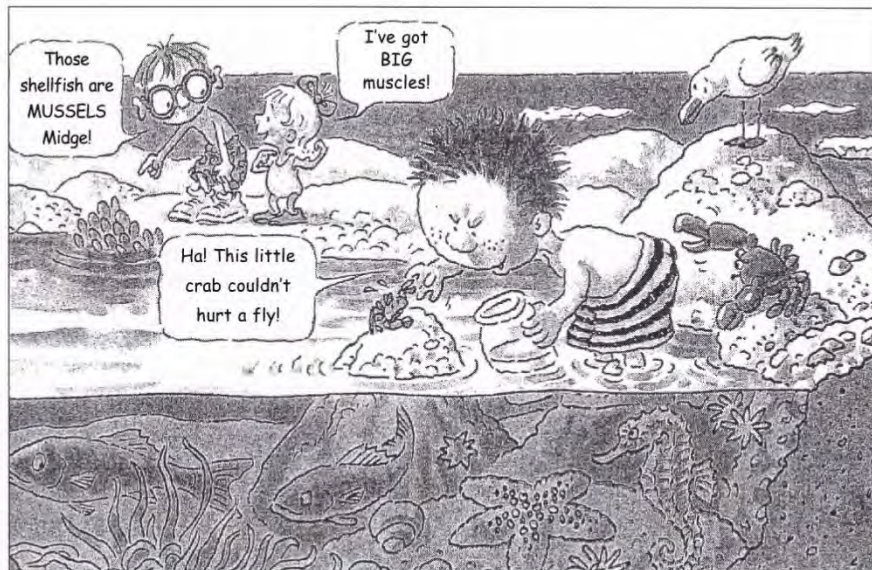
Estuaries are very important areas for young prawns and fish. They live in the shallow estuary waters until they grow big enough to travel out into the open ocean.

BEACHES

A visit to the beach provides a good opportunity to look for marine animals. Look in the sand, around the rocks and amongst the seaweed. It is surprising how many animals make these places their home.

Rockpools are full of fascinating animals such as seastars, limpets, sea anemones and barnacles. All are specially suited to living where waves and the tides come in and out. Sometimes they are wet and other times they are dry.

Barnacles, limpets and sea anemones are very good at clinging onto rocks. Some animals make special glue and others have a suction pad, to make sure that they are not swept into the sea every time a wave crashes onto them.

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9. What is an estuary?

○ a watery environment where a river meets the sea
○ a water-filled hole found near the beach
○ a place where oysters and mussels hide in burrows
○ a saltwater environment that is home to plants and animals

10. Write the animal names under the correct heading in the table.
The first one has been done for you.

| sea anemones | limpet | fish | seastar | prawns | crabs |

These animals live in an ESTUARY.	These animals live on the BEACH.
mussels	barnacles

11. What happens when tidal waters in an estuary go out?

○ Oysters and mussels filter water to find small pieces of food.
○ Barnacles are eaten by limpets.
○ Crabs search for food in the mud.
○ Prawns and fish leave for deeper waters.

12. Who is the likely audience for this information?_____

Give one example from the information to support your answer.

_____

_____

- 7 -

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Read Gull Rescue and answer questions 13 to 17.

Gull Rescue

Joseph bent and picked up his bag of shells, able to grasp them comfortably with two fingers while still holding the bird in his arms. "Might as well take them since the wind has blown my jacket away." He didn't look back at the waves, just half ran down the beach, cradling the bird against him.

The running and excitement and the worry had him panting as he burst through the gate of his grandfather's house. Then a terrible thought struck him. His grandfather had no pets. He might not like animals at all. He might refuse even to look at the bird. **What would he do then?**

He had to have someone to help him with the helpless injured creature. Grandad couldn't refuse. Inside his chest Joseph felt his heart pounding. Outside he could feel the warmth of the bird against his body. It stayed still, as birds do in dark, covered places.

His grandfather wasn't in the garden and Joseph panted through the back door to find him at the kitchen bench. He looked up at Joseph in surprise. "You never stay away long, do you?" Then, in puzzled tones, "It's not hot out there, is it? What are you doing with half your clothes—"

Joseph interrupted, holding out the jersey-wrapped bundle **as though he were offering a precious gift**. "I've got a bird, Grandad. An injured bird. Will you help me?"

"A bird, you say." His grandfather put down the knife and reached to wipe his hands on the kitchen towel. Joseph couldn't tell what the expression on his face indicated.

"You won't kill it, will you?" he pleaded. "It's a gull with a broken wing."

Joseph couldn't see his grandfather's eyes for he held a thumb on one temple while he rubbed his fingers of the same hand back and forth across his forehead. "A gull you say."

"Yes."

Bring it over here to the table." He reached out both hands, **beckoning,** and Joseph could see his whole face. He recognised concern in his grandfather's eyes and knew it was going to be all right.

---

13. When Joseph first arrived at the house he was anxious because his grandfather

   ○ was not home.
   ○ might not like animals.
   ○ would be angry that Joseph had lost his jacket.
   ○ did not want Joseph to come into the garden.

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14. The phrase *as though he were offering a precious gift* tells us that Joseph held the bird

    ○ awkwardly.
    ○ jealously.
    ○ loosely.
    ○ gently.
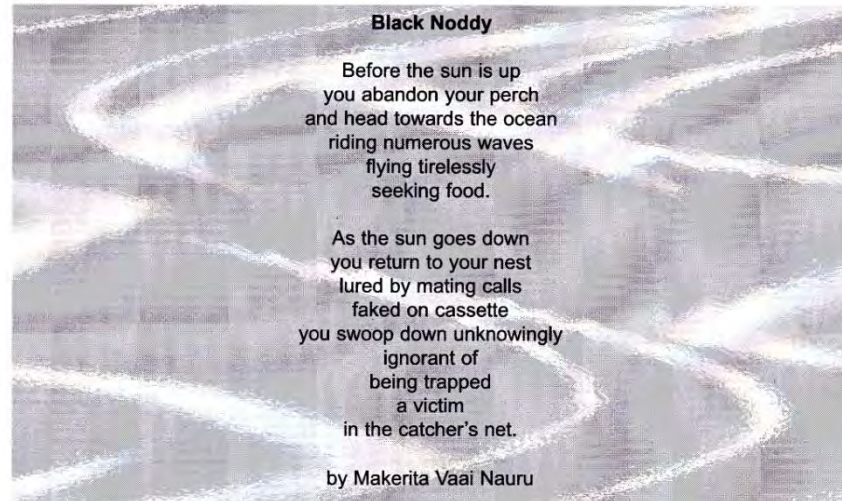
15. When Joseph arrived home his grandfather was

    ○ in the garden.
    ○ at the gate.
    ○ in the kitchen.
    ○ at the back door.

16. Shade one bubble for the line which shows how Joseph's mood changed in the story.

	In the second paragraph Joseph is	In the last paragraph Joseph is
○	puzzled	relieved
○	concerned	desperate
○	delighted	confused
○	anxious	relieved

17. In the last paragraph, Joseph's grandfather is beckoning with both hands.
    What does *beckoning* mean?

    _____

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Read Black Noddy and answer questions 18 to 23.

Black Noddy

Before the sun is up
you abandon your perch
and head towards the ocean
riding numerous waves
flying tirelessly
seeking food.

As the sun goes down
you return to your nest
lured by mating calls
faked on cassette
you swoop down unknowingly
ignorant of
being trapped
a victim
in the catcher's net.

by Makerita Vaai Nauru

18. Which of the following words is the best description of how the poet probably feels about the catcher?

- ⬭ supportive
- ⬭ apathetic
- ⬭ confused
- ⬭ angry

19. List four things the Black Noddy does during the day.

(i)_____

(ii)_____

(iii)_____

(iv)_____

20. A Black Noddy can be described as

- ⬭ a fish which is often caught in a net.
- ⬭ a fish which rides on the waves.
- ⬭ a bird which hunts and nests in the same location.
- ⬭ a bird which eats marine creatures.

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21. What do you think happens to the Black Noddy at the end of this poem?

_____

_____

22. Which of the following words is closest to the meaning of *lured* as it is used in this poem?

○ distracted
○ enticed
○ confused
○ hypnotised

23. To whom does the word *you* refer in the line *you abandon your perch*?

_____

Read Operation Skateboard and answer questions 24 to 28

Operation Skatebowl

In Mount Maunganui, the skateboarders had nowhere to ride. **They skated on footpaths and in car parks**, damaging the kerbs and annoying everyone. They didn't mean to cause trouble—but they did. When people started complaining, the skaties realised that if they wanted to keep riding, they'd have to help themselves. Instead of sitting around, they got together and started campaigning for a skatebowl. If they'd known it was going to take two years to reach their goal, they might never have set out to achieve **it**.

It all came to a head the day **Robert did an ollie heel sideslipper** in the supermarket car park. The security guard yelled "Out!" and **confiscated** his skateboard. **It was a while before the guard cooled off** enough for Robert to approach him, apologise and ask for his skateboard back. A few days later, Robert's mum saw a letter in the local paper.

> The Editor
> Bay of Plenty Times
> Tauranga
>
> Dear Sir
>
> I'm fed up with skateboarders. They zoom along footpaths, hang on to cars, and damage paving. If they ride in public places, someone will get hurt. Why don't they take their four-wheeled planks of wood and baggy pants and find somewhere else to ride!
>
> Yours sincerely
>
> Fed up
> (Mount Maunganui)

Robert and his friends realised that people were getting really upset. They didn't want the town to think they were just a bunch of troublemakers, so the next day, his friend Jake Mokomoko wrote his own letter to the newspaper.

> The Editor
> Bay of Plenty Times
> Tauranga
>
> Dear Sir
>
> It's not fair. Skaties have been banned from parks, banned from footpaths, banned from malls—banned from everywhere that's fun. **We don't want to cause trouble**. We just want somewhere to ride.
>
> Yours sincerely
>
> Jake Mokomoko
> (Mount Maunganui)

Jake's mum said, "If you skaties want somewhere to ride, then you'll have to do something about it."

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24. What is the most likely conclusion to *Operation Skatebowl*?

　　○ The skaties will confront the security guard.
　　○ Jake's mum will write to the editor of the local paper.
　　○ The skaties will plan action to get a skatebowl constructed.
　　○ The skaties will realise that skateboards should not be used in public.

25. Which quotation reflects an attitude of the skaties?

　　○ *They skated on footpaths and in car parks*
　　○ *Robert did an ollie heel sideslipper*
　　○ *It was a while before the guard cooled off*
　　○ *We don't want to cause trouble*

26. To what does the *it* at the end of the first paragraph refer?

_____

_____

27. Which words from the letter from *Fed up* show you that he was angry?

_____

28. Why do you think *Fed up* didn't use his or her real name on the letter?

_____

_____

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Read Grandad's Cupboard and answer questions 29 to 31.

GRANDAD'S CUPBOARD

"We can't open that cupboard," said Dad. "I promised my father. Grandad locked it up many years ago and it's never been opened."

"What's in it?" I asked.

"No one knows," said Mum.

"But it's in my bedroom," I said. "I need to know what's in it. It could be anything."

"I lived in this room for nineteen years," said Dad. "And I kept my promise. That cupboard has never been opened. Now I want you to promise me that you'll never open it."

They both looked at me, waiting for my answer. Suddenly there was a knock on the door downstairs. "It's the removal van," said Mum. "**About time too**."

Mum and Dad rushed down to help move in our furniture. I wandered around my new room. It was small and dusty with a little dormer window overlooking the tangled garden. No one had lived in the house for years. It was high in the mountains, far from the city. The garden was overgrown. Ivy had climbed the gum trees. Blackberry bushes choked the paths and strangled the shrubs.

I walked over to the forbidden cupboard and gave the handle a shake. It was locked firm. I put my eye to the keyhole but everything was black. I sniffed under the gap at the bottom of the door. It was musty and dusty. Something silent inside seemed to call me.

It was almost as if a gentle voice was **stirring the shadows of years gone by**. The stillness seemed to echo my name, "Shane, Shane, Shane ..."

29. Which of the following is a feature of this text?

   ⃝ It uses direct speech.
   ⃝ It contains technical language.
   ⃝ It uses unusually long sentences.
   ⃝ It has an argumentative style.

30. Who is the narrator of this story?

_____

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31. To what do you think the words **stirring the shadows of years gone by** refer?

_____

_____

_____

_____

GLACIERS

New Zealand's Rivers of Ice

New Zealand's Fox and Franz Josef Glaciers cut through the dramatic scenery of glacial valleys to flow into temperate rainforest. While many glaciers worldwide have been retreating, these amazing glaciers still flow almost to sea level, making them unique relics of the last Ice Age.

Tourists who visit the area of South Westland are often treated to magnificent views of the stunning glacial landscape. Excellent vistas of the glaciers may be obtained from short valley walks to the Franz Josef and Fox Glacier terminal faces, or by taking a guided walk on to the ice. Whatever the vantage point, there is no mistaking the majesty of these wonders of the natural world. How they come to exist though is a question that requires complex explanation.

How glaciers form and flow

The formation and flow of the spectacular Fox and Franz Josef Glaciers is closely tied to the remarkable landscape and distinctive meteorological patterns of an area of New Zealand known as South-Westland. The glaciers lie in the path of a band of wind known as the roaring forties. The fast flowing, water saturated air that arrives on New Zealand's West Coast is forced to rise over the Southern Alps. As it rises, it cools and drops most of its moisture as rain and snow. This process causes approximately 30 metres of snow to fall on the neve, or catchment area of the glacier every year. Snow that is compacted on the neve forms **blue glacier ice** that is funnelled down the valleys of the Franz Josef and Fox Glaciers. This flows under its own momentum, forming glaciers or **'rivers of ice'**, as they are often known.

Although the surface of the glaciers at lower elevations allows for much melting to occur, the high snowfall continues to push ice down the valleys at very high rates. This movement is aided by basal sliding which is caused by the formation of a layer of water beneath the glaciers. The water layer is created by the weight of the ice pushing against the valley floor. It is both of these factors that cause the Franz Josef and Fox Glaciers to have flow rates that are up to ten times faster than most valley glaciers in the rest of the world.

As the glaciers flow, they slide over large bedrock steps on the valley floors. This causes the glacial ice to extend and break up, forming steep **icefalls** that are mazes of crevasses and pinnacles of ice.

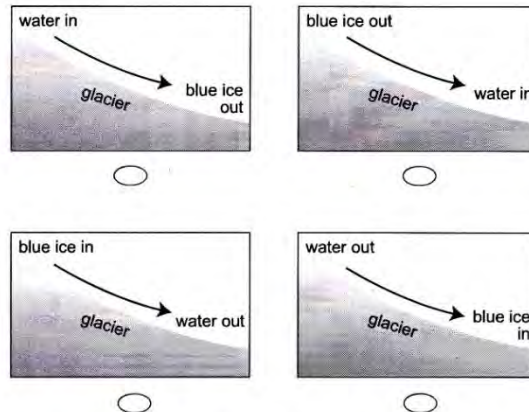Adapted from http://www.glaciercountry.co.nz/glaciers.asp

32. Why are the Franz Josef and Fox glaciers different to most other glaciers in the world?

   ◯ because of their size
   ◯ because they still flow to the sea
   ◯ because a great deal of snow settles on them
   ◯ because they have a dramatic beauty

33. When is **"Blue glacier ice"** formed?

   ◯ when sea water falls on the ice
   ◯ when snowfalls on the neve are compressed
   ◯ when ice is funnelled down the valleys
   ◯ when 30 metres of snow falls in the catchment area

34. What is the main purpose of this text?

   ◯ to persuade readers to visit these New Zealand glaciers
   ◯ to explain the processes by which glaciers form and flow
   ◯ to describe the weather patterns in South-Westland
   ◯ to explain the significance of glaciers in the New Zealand landscape

35. What are **"Icefalls"** caused by?

   ◯ mazes of crevices and pinnacles of ice
   ◯ the glaciers sliding over large bedrock steps on the valley floors
   ◯ the interference of tourists who visit the area
   ◯ the speed at which the glaciers flow

36. What two factors work together to make glaciers flow?

   ◯ wind and rain
   ◯ basal sliding and high snowfall
   ◯ basal sliding and a layer of water
   ◯ steep valleys and low temperatures

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37. Choose the diagram that best represents the flow of a glacier.

water in

glacier → blue ice out

○

blue ice out

glacier → water in

○

blue ice in

glacier → water out

○

water out

glacier → blue ice in

○

38. Which word, that also describes the movement of water in rivers, is used to describe the movement of these rivers of ice?

_____

39. Put the numbers 1, 2, 3, 4 next to the following statements to show the correct order of events for glacier formation and flow.

____ Blue glacier ice is funnelled down the glacier valley.
____ Snow falls on the neve and is compacted to form blue glacier ice.
____ A layer of water forms beneath the ice and basal sliding occurs.
____ Icefalls occur at the terminal face as the glacier slides across large bedrock steps.

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Summary

Test Identification	
Name	Y6_someInf_someUnd_someFI
Date Created	25/09/2011 11:48
Last Modified	25/09/2011 11:53
Area	Reading
Status	Accepted
Sequence Number	00287

Content			
Finding Information	14	**Knowledge**	2
Understanding	18	**Connections**	2
Inference	15	**Surface Features**	11

Difficulty					
2B	2	**2P**	6	**2A**	1
3B	5	**3P**	4	**3A**	3
4B	6	**4P**	4	**4A**	0
5B	0	**5P**	0	**5A**	0
6B	0	**6P**	0	**6A**	0

Cognitive Processing			
Surface	16	**Deep**	18

Slider Settings			
Content		**Difficulty**	
Finding Information	Some	**L3**	Many
Understanding	Some	**L4**	Many
Inference	Some		

Scoring Guide

1	(Read the administration guidelines for instructions on how to do this Dictated Spelling task.) January
2	middle
3	calendar
4	twelve
5	order
6	legend
7	decided
8	lead
9	leapt
10	won
11	b
12	c
13	That stealing pennies was much worse. That stealing pennies was much more serious. 1 mark for either of these
14	"at the sight of his dreadful babyish tears her blood sprang up in rage against the world" "tried to repair Toby's face" 1 mark for either of these
15	b
16	b
17	c
18	d
19	c
20	Part A - "It sits looking over harbour and city"; Part B - The author changed the order of words from "It sits looking over the city and the harbour" to "It sits looking over harbour and city" because it fitted in with the rhythm of the poem, it was more concise, he wanted to focus on the harbour, to suggest that the fog came from the harbour. Part A - 1 mark for correct sentence.; Part B - 1 mark for a response which shows surface understanding; 2 marks for a response which indicates a deeper understanding; Maximum marks for parts A + B = 3

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

21	The way it moves is like a cat, how quietly it travels and then moves on ...
22	d
23	2,4,1,3 All correct for one mark
24	the bay
25	To reflect the movement of the tide coming in and going out OR to mimic the movement of the boats. Either answer for 1 mark.
26	b
27	d
28	Answers to reflect the theme Maori = traditional, European = naturalistic 1 mark for each correct response
29	Theme of answer should reflect the idea of unresolved differences e.g. It means that things are not over yet. The conflict like the fire still has life and could light again. (It represents differences between Maori and Pakeha that remain unresolved). 1 mark maximum
30	c
31	c
32	community organisations, local businesses, John Wallace Memorial Trust 1 mark for each to a maximum of 3 marks
33	b
34	It is a proper noun / the name of a specific thing / name of an organisation 1 mark for any correct response

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

Assessment Tools for Teaching and Learning

asTTle

READING

First Name

Last Name

School Name

Room Number / Class

Test Id: 00287 Created 25/09/2011

DICTATED SPELLING

The Chinese New Year [*starts*] somewhere between late

[_____(1)_____] and the [_____(2)_____] of February. The exact date

changes from year to year because it is based on an ancient farming

[_____(3)_____]. Every new year is named after one of [_____(4)_____]

animals. The animals stay in the same [_____(5)_____] but take turns one year after

the other. The year 2001 is the year of the snake. There is an ancient Chinese

[_____(6)_____] which explains how they [_____(7)_____] which animal

would go first. All the animals had a race to swim across a river. The ox was the strongest and it

soon took the [_____(8)_____]. The other animals struggled behind the ox but

no-one noticed the cunning rat hiding on the ox's back. Just before the ox touched the other

side, the rat [_____(9)_____] onto the bank and [_____(10)_____] the race.

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Read Savages and Thieves, from Judith Wright's story Holidays, to answer questions 11 to 14.

SAVAGES AND THIEVES

Toby ran down the steep, guttered road from the shop, half-blind with tears. He was crying so much that he caught his foot in a root that ran out into the road from Ferguson's fig-tree and **barked** a knee and his chin on the hot gravel. As it was impossible for him to cry louder than he had been, he now fell silent, and limping home, only sobbed. But the tears fell in a flood.

Eleanor and John were pulling pickets off the cottage-fence behind the coral-tree, when he came through the back gate. They wanted a secret entrance to foil the plots of Savage's Gang, who had waited for them yesterday evening in the dark and caught them coming home from Long Beach, pelting them disagreeably with pieces of dead crab. Eleanor was just going to ask Toby whether he had eaten all his chocolate frog when she noticed that his heart was broken; as always at the sight of his dreadful babyish tears, her blood sprang up in rage against the world.

"What's happened, Toby? What is it?"

"They took it," Toby at last managed to articulate.

"They took your frog? Who did?" But Eleanor knew already; and meeting John's eye she took out her handkerchief and tried to repair Toby's face, which as John said was all slobbered up.

"You should have hit them," John told Toby, quite meaninglessly, since Toby at five was scarcely to be considered a match for Savage's Gang, whose four members were all over the age of nine. What John meant, however, as Eleanor understood, was really that John himself at eight, was not a match for them either, and felt himself and Toby inferior beings.

"And there ought to have been a penny change," John continued. "Have you got that?"

"They took it," wept Toby.

Then they're thieves," Eleanor said. To take chocolate frogs was one thing; pennies, as they had all been taught, were quite another. "Savages and thieves. Now, " she went on, casting about for some way to change Toby's expression, which, like the look of a rabbit she had once wickedly released from a trap, made her feel quite powerless with misery, "come inside and I'll give you a wash. And a lump of sugar. Auntie's asleep in the front garden."

"Don't want any sugar," Toby, rejecting all kindnesses, staggered alone to the steps and crawled up them on all fours, to emphasize his feelings. Unwashed, he vanished under his bed where he would lie, Eleanor expected, till lunch-time.

- 5 -

11. What is the main reason that the writer compares the look on Toby's face to a rabbit that Eleanor had once wickedly released from a trap?

  - ◯ to make a joke about Toby's situation
  - ◯ to make us feel that Toby is small and helpless
  - ◯ to let us know that Eleanor is kind to animals
  - ◯ to let us know that Toby is a silly boy

12. What does the first paragraph mainly describe?

  - ◯ what Toby's street looks like
  - ◯ the Savage Gang's attack on Toby
  - ◯ Toby's journey back from the shop
  - ◯ Eleanor and John in the garden

13. What do you think the children in the story had been taught about the difference between stealing a chocolate frog and stealing pennies?

_____

_____

14. Write a phrase from the text that tells us that Eleanor feels protective of Toby

_____

_____

Read Sea Survey and answer questions 15 to 17.

SEA SURVEY

By Diana Menefy

This text contains two accounts of experiences on board sea survey vessels.

Account 1

I sit in **Seagull**, watching the rocks, and wiping the sweat off my face. I can feel my legs burning and wish I'd remembered my sun block. The rocks are getting closer. The boat is cruising at a steady speed, not fast, but not slowing down, either.

I can hear them talking in the cabin—confident voices in a pattern of calls. The sea is calm, just a languid swell and gentle swishing as the foam dances around the rocks.

If I listen hard enough, I can hear what they're saying. It makes no sense to me, but I can see the patterns forming on the trace of the *echo sounder*. They show the depth and shape of the seabed beneath us.

We are so close to the rocks that I feel I could stretch out and touch them. I have no sense of danger—these people know what they're doing. I hear the drone of the engines change to a roar and feel the boat vibrate to a stop, back off, then turn and head out into the Bay.

Account 2

I am in Seagull, as an observer. Seagull is one of the New Zealand navy's survey boats which works from the HMNZS Monowai.

The team on board are members of the Hydrographic Branch of the Navy.
It is their job to survey the coast, harbours and seabed so that charts can be updated to show all the hidden dangers of the sea.

Thousands of pleasure craft use the area each year, as well as cruise liners and commercial fishing boats, so the Navy's Hydrographic Office has decided to produce a new chart.

15. The echo sounder is being used to

⃝ determine the location of animals.
⃝ map the sea floor of the Bay of Islands.
⃝ destroy dangerous land formation near the sea.
⃝ locate people in the waters around New Zealand.

- 7 -

16. The author's attitude to the crew of the Seagull could best be described as

⭕ naïve.
⭕ trusting.
⭕ faithful.
⭕ indifferent.

17. The noise of the engine changes from a drone to a roar because the boat is

⭕ accelerating.
⭕ reversing.
⭕ stopping.
⭕ cruising.

- 8 -

373

Read Fog and answer questions 18 to 21.

Carl Sandburg watched a thick fog move from the nearby Chicago harbour and settle over the park where he was walking. The year was 1913 and Sandburg, then a journalist for the Chicago Daily News, was on his way to interview a judge. Later, as he sat waiting at the judge's office, he pulled a piece of newspaper from his pocket. On it he wrote: "The fog comes on little cat feet. It sits looking over the city and harbour on silent haunches and then moves on." Later, the poem was published and these few lines became one of his most famous poems.

FOG

The fog comes
on little cat feet.

It sits looking
over harbour and city
on silent haunches
and then moves on.

by Carl Sandburg

18. What gave Carl Sandburg the idea for the poem *Fog*?

   ⬭ watching his cat walk in the fog
   ⬭ walking in his garden
   ⬭ sitting in a judge's office
   ⬭ watching the fog roll in from the harbour

19. The poem gives the reader the impression that the fog

   ⬭ has moved in quickly.
   ⬭ is not very large.
   ⬭ has arrived quietly.
   ⬭ is not very thick.

20. Write one line from the poem which changed from the original notes to the published version.

   _____

   Why do you think the poet made this change?

   _____

   _____

- 9 -

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21. What is it about the fog that reminds the poet of a cat?

_____

_____

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Read The Fishermen's Boats and answer 22 to 25.

THE FISHERMEN'S BOATS

When the tide ebbs
    And the sands are dry,
The fishermen's boats
    All resting lie.

When the tide flows
    As it turns once more,
And fills with its waters
    The bay's wide shore,

While wild sea-horses
    Around them prance,
The fishermen's boats
    All rock and dance.

by Annie Wrench

22. The wild sea-horses in the poem are most probably the

    ⬭ fishermen.
    ⬭ boats.
    ⬭ fish.
    ⬭ waves.

23. Write the numbers 1, 2, 3 and 4 in the boxes to show the correct order for the events in the poem.

    ☐   The tide turns.

    ☐   The boats toss on the water.

    ☐   The tide is out and the boats are still.

    ☐   The water of the bay reaches the shore.

24. To what does the *its* refer in the line *And fills with its waters*?

_____

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25. Every second line of this poem is indented. Why do you think the poet chose to do this?

_____

_____

_____

_____

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Read Book Reviews on the Web to answer questions 26 to 29.

BOOK REVIEWS ON THE WEB

Back   Forward   Stop   Refresh   Home   AutoFill   Print   »

Address: @ http://www.nzbooks.com/   go

@ mBox.com.au – Welcome   @ Live Home Page   @ Apple Computer   @ Microsoft MacTopia   »

Book Title: **The House That Jack Built**   Author: **Gavin Bishop**   Publisher: **Scholastic, NZ**

1. Would you recommend this book?   **2. How many stars do you give this title?**

⦿ Yes ○ No

3. Please enter a one-line summary of your review: A very informative book. Amazing use of pictures.

4. Type your review in the space below: Maximum of 1,000 words.

I liked this book. It is based on the retelling of a traditional rhyme, set in New Zealand at the turn of the 19th century. But it's different because it seems both new and old at the same time. The pictures in the book are fascinating and the use of imagery is amazing. I read in another review that the pictures included in the book are a **metaphor** for what happened when European traders, sealers, whalers and settlers arrived in Aotearoa/New Zealand during the early 19th century. The illustrations are certainly full of meaning.
The story begins when Jack Bull arrives in Aotearoa in 1798 to find a land strong in spirit and tradition. The Maori, the people of the land, want his iron pots, nails and blankets to enhance their daily lives. They trade and Jack builds a house but problems arise as a steady flood of European settlers follow him and things start to change in the Maori world.
To the Maori, the land is their Earth Mother, Papatuanuku, who gives life to all things. But, the settlers pressure the Maori to give up their land to build farms and towns. The loss of tribal land and the failure of the Treaty of Waitangi in 1840 to bind the two peoples together, leads to conflict. Tumatauenga, the Maori god of war, calls the Maori people to fight for Papatuanuku. As he grows strong on the land, the Earth Mother's presence fills the page and the remains of the house that Jack built smoulder in the foreground as a **symbol of the conflict.**
The illustrations on each page seem to tell as much of the story as the words. At the beginning, we see the land, sea and sky dominated by the Earth Mother, Papatuanuku, the Sky Father, Ranginui, and the eyes of their children. They are drawn in a style that reflects traditional Maori art forms. As the story unfolds, the spirit of the Earth Mother **diminishes** and fades. In contrast, the pictures showing events through the eyes of the Europeans are naturalistic in style. On the last pages the conflict is recorded for future generations on the wall of a meeting house in a folk art style blending traditional Maori and European art forms. This final blending seems to me to be like the intertwining of cultures in the rich history of Aotearoa.
I enjoyed this book enormously. I liked the multilayered illustrations because they are integral to the telling of this story.

5. Include some related titles you also enjoyed and say why.

Taniwha, a great picture book by Robyn Kahukiwa. I liked it for its use of Maori images in the illustrations.
Dead Man's Head by Jack Lazenby is another great New Zealand book full of descriptive language and rich in imagery, some spectacular characterisations are present. A New Zealand prize winner by Maurice Gee, The Fat Man, is a fantastic read. Watch out for a twisting plot. It is scary at times and very descriptive. You can almost "see" the story unfold as you read the words.

6. Enter your email address

katyclare@coldmail.co.nz   Submit Form

Internet zone   Adapted from http://www.nzbooks.com

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26. What do the books that have been chosen as related titles have in common?

○ They have all been written by the same author
○ They rely heavily on imagery
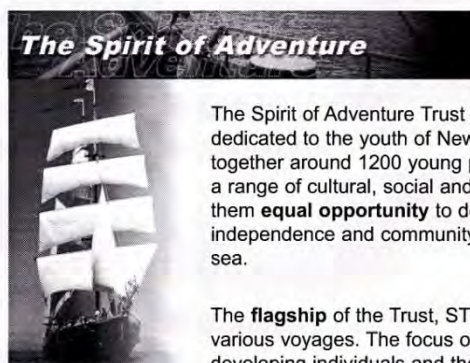○ They have strong characterisations
○ They have a sharp twist in the plot

27. Which of the following would best describe what Katy Clare feels about the role of illustrations in the telling of this story?

○ They are multilayered.
○ They are informative.
○ They are insightful.
○ They are integral.

28. In what ways are the styles of the illustrations in the book for Maori and Europeans different?

_____

_____

29. The smouldering remains of Jack's house are said to be a **"symbol of the conflict"** between early Maori and Europeans. Explain what this image represents.

_____

_____

Read The Spirit of Adventure and answer questions 30 to 34.

The Spirit of Adventure

The Spirit of Adventure Trust is a community-focused organisation dedicated to the youth of New Zealand. Each year it brings together around 1200 young people throughout the country from a range of cultural, social and religious backgrounds and offers them **equal opportunity** to develop qualities of leadership, independence and community spirit through the medium of the sea.

The **flagship** of the Trust, STS Spirit of New Zealand, offers various voyages. The focus of these voyages is as much on developing individuals and their team skills as it is on learning to sail. One of the most popular voyages offered by the Trust is the Youth Development Voyage, which lasts ten days. The voyage is designed for young people aged from 15-19 years who are in full-time education (at school, polytechnic, university or other educational establishment) and who are looking for excitement, friendship, personal development and a great time!

STS Spirit of New Zealand sails all year round. Voyages may begin and end at any of the major ports in New Zealand. Each voyage will usually have activities based on board ship, on small craft and on shore. The voyage may include a **coastal passage**, or may begin and end in the same port. The Trust has a **travel equalisation scheme**, which means that any voyage is open to any student no matter where they may live. To ensure equal access, the Trust pays for travel (bus/ferry) for any trainees who are more than 150 kilometres radius from the ports of arrival and departure.

A Youth Development Voyage is not free to participants but the Trust subsidises each trainee so that the actual fee payable is limited. Those who wish to sail are encouraged to approach community organisations for financial support so that their costs may be subsidised further. Approaching local businesses can provide good sources of **supplementary** funding for trainees. In addition, the John Wallace Memorial Trust can support applicants in serious financial need.

Each year many young New Zealanders from all walks of life take the opportunity to sail on the Spirit of New Zealand and find friendship, courage, confidence and excitement. Together on the sea, they become rich in experience and knowledge of themselves and each other.

adapted from http://www.spiritofadventure.org.nz/

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30. How do the trainees develop the qualities of leadership, independence and community spirit?

○ While they are on board they have to do classes with adults.
○ They go to school, university or polytechnic.
○ They participate in rich co-operative experiences.
○ The Trust gives them a certificate of competence upon completion.

31. What is a **"coastal passage"** voyage?

○ the voyage may begin and end in the same port
○ there will be a special walkway to get on the ship
○ the voyage may begin and end in different ports
○ participants have to hike along the shore

32. What are the three ways in the text that a trainee can get money to support a trip on a Youth Development Voyage?

i) _____

ii) _____

iii) _____

33. What is the main purpose of this text?

○ to advertise for donations to The Spirit of Adventure Trust
○ to report information about a community organisation
○ to explain to young people how to apply for a place on one of the voyages
○ to inform young people about the benefits of participating in sailing

34. Why is the word "Trust" capitalised throughout this text?

_____

Summary

Test Identification

Name	Y6_mostUnd
Date Created	26/09/2011 20:26
Last Modified	26/09/2011 20:37
Area	Reading
Status	Accepted
Sequence Number	00386

Content

Finding Information	16	Knowledge	6
Understanding	30	Connections	3
Inference	17	Surface Features	4

Difficulty

2B	2	2P	9	2A	2
3B	5	3P	5	3A	3
4B	4	4P	3	4A	1
5B	0	5P	0	5A	0
6B	0	6P	0	6A	0

Cognitive Processing

Surface	15	Deep	22

Slider Settings

Content		Difficulty	
Understanding	Most	L3	Many
		L4	Many

Scoring Guide

1	a
2	c
3	(i) School children / children (ii) Illustration contains children in picture / child like pun / cartoon type presentation Audience AND an example must be provided for 1 mark
4	d
5	c
6	c
7	a
8	They talk to Anna as if she is almost an adult / they let her stay up late 1 mark for either response
9	Do, Sally (Boxes 1 and 4) All correct for one mark
10	"How long is it until lunch time?" asked Polly. 1 mark if sentence is all correct. Must have " H ? " P .
11	"Can I please have a look?" asked Sarah. 1 mark if sentence is all correct. Must have " C ? " S
12	"Will you please buy some bread, milk, eggs and cheese?" asked Jim. 1 mark if sentence is all correct. Must have quote marks before Will and after cheese?; capitals on Will & Jim; commas after bread and milk; question mark after cheese.
13	b
14	a
15	c
16	That stealing pennies was much worse. That stealing pennies was much more serious. 1 mark for either of these
17	"at the sight of his dreadful babyish tears her blood sprang up in rage against the world" "tried to repair Toby's face" 1 mark for either of these
18	b

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

19	Dust, hydrogen Both correct for 1 mark
20	c
21	gravity
22	Size. Colour Both correct for 1 mark
23	left to right numbered 3 4 2 5 1 All correct for one mark
24	a
25	d
26	c
27	d
28	b
29	a
30	c
31	Outstanding or Recommended 1 mark for either
32	d
33	b
34	reduces, weakens will accept also gets smaller, gets dimmer or shrinks, or similar 1 mark for a correct response.
35	d
36	Answers to reflect the theme Maori = traditional, European = naturalistic 1 mark for each correct response
37	Theme of answer should reflect the idea of unresolved differences e.g. It means that things are not over yet. The conflict like the fire still has life and could light again. (It represents differences between Maori and Pakeha that remain unresolved). 1 mark maximum

Instructions:

Underlined Questions eg **10**: Use teacher judgement. Give 1 if answer matches scoring guide (unless otherwise instructed). For incorrect answers give 0 (zero).

All other Questions: The response chosen by the student is entered using letters of the alphabet.
eg. 'a' for first option; 'b' for second option; 'c' for third option and so on.

Questions not answered: Enter a dash (-).

as♩Tle

READING

First Name

Last Name

School Name

Room Number / Class

Test Id: 00386 Created 26/09/2011

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Read Estuaries and Beaches and answer questions 1 to 3.

ESTUARIES

The place where a river meets the sea is called an estuary. The water is **brackish**, which means that it is not salty like the sea and it is not fresh like drinking water. It is somewhere in-between.

When the tide is out and the water is low, crabs **scuttle** around looking for food in the mud. Oysters and mussels close up their shells so they do not dry out. When the tide is in and the water is high, the crabs hide in their muddy burrows. The oysters and mussels open their shells and filter the water for small pieces of food.

Estuaries are very important areas for young prawns and fish. They live in the shallow estuary waters until they grow big enough to travel out into the open ocean.

BEACHES

A visit to the beach provides a good opportunity to look for marine animals. Look in the sand, around the rocks and amongst the seaweed. It is surprising how many animals make these places their home.

Rockpools are full of fascinating animals such as seastars, limpets, sea anemones and barnacles. All are specially suited to living where waves and the tides come in and out. Sometimes they are wet and other times they are dry.

Barnacles, limpets and sea anemones are very good at clinging onto rocks. Some animals make special glue and others have a suction pad, to make sure that they are not swept into the sea every time a wave crashes onto them.

- 4 -

1. What is an estuary?

   ○ a watery environment where a river meets the sea
   ○ a water-filled hole found near the beach
   ○ a place where oysters and mussels hide in burrows
   ○ a saltwater environment that is home to plants and animals

2. What happens when tidal waters in an estuary go out?

   ○ Oysters and mussels filter water to find small pieces of food.
   ○ Barnacles are eaten by limpets.
   ○ Crabs search for food in the mud.
   ○ Prawns and fish leave for deeper waters.

3. Who is the likely audience for this information?_____

   Give one example from the information to support your answer.

   _____

   _____

Read Our Cousin Anna and answer questions 4 to 8.

OUR COUSIN ANNA

Actually, our cousin Anna is a very talented person. Mum says she has an active brain and it's true! She can make up incredible stories and invent really good dares and tell jokes till the cows come home. Dad says she's "athletic" because she wins all her races at school. Anna's good at every single ball game you can name and she plays cricket with the hard ball! She can stand on her hands and walk on her hands, do backflips and climb to very high places without being scared!

I like being with Anna because somehow things always seem fast and furious and funny when she's around – and well, she's just a very unusual person.

Rita is Anna's Mum and Jack is Anna's Dad and they say they don't know what they've done to deserve a daughter like Anna. I don't know what they've done either but they must be unusual in some way. Rita is a dress designer and Jack drives a cab, and they don't seem that unusual really, except that mostly they talk to Anna as if she is practically an adult, and they let her stay up awfully late too. Our Mum says eight-thirty is absolutely it, even if the funniest movie is on. She holds hard and fast to that rule. Eight-thirty is it and you have to read with a torch if you're in the middle of a good book because the light goes off and Harriet's night light is simply not enough.

---

4. How does the narrator feel about her cousin Anna?

    ⬭ She dislikes Anna's behaviour and is jealous of her privileges.
    ⬭ She is delighted by Anna's bravery but bored by her stories.
    ⬭ She is infuriated by Anna's jokes and scared by her dares.
    ⬭ She admires Anna's abilities and envies her freedom.

5. The main aim of this passage is to

    ⬭ outline the ideas and issues this story will discuss.
    ⬭ illustrate the surroundings in which this story is set.
    ⬭ describe an interesting and unusual character.
    ⬭ summarise the events which will occur in this story.

6. The best word to describe Anna is

    ⬭ irritated.
    ⬭ humorous.
    ⬭ energetic.
    ⬭ isolated.

- 6 -

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7. Which word would best describe the narrator's mother?

   ⬭ firm
   ⬭ unusual
   ⬭ dignified
   ⬭ qualified

8. What does the narrator find unusual about Anna's parents?

_____

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9. **Shade the bubbles to show which words should have capital letters.**

do you want to come to the park with sally and me?

10. **Rewrite the sentence on the line provided using the correct punctuation (capital letters and punctuation marks).**

how long is it until lunch time asked polly

_____

11. **Rewrite the sentence using the correct punctuation (capital letters and punctuation marks).**

can I please have a look asked sarah

_____

12. **Re-write the sentence on the lines provided using the correct punctuation (capitals letters and punctuation marks).**

will you please buy some bread milk eggs and cheese asked jim

_____

_____

- 8 -

Read Savages and Thieves, from Judith Wright's story Holidays, to answer questions 13 to 17.

SAVAGES AND THIEVES

Toby ran down the steep, guttered road from the shop, half-blind with tears. He was crying so much that he caught his foot in a root that ran out into the road from Ferguson's fig-tree and **barked** a knee and his chin on the hot gravel. As it was impossible for him to cry louder than he had been, he now fell silent, and limping home, only sobbed. But the tears fell in a flood.

Eleanor and John were pulling pickets off the cottage-fence behind the coral-tree, when he came through the back gate. They wanted a secret entrance to foil the plots of Savage's Gang, who had waited for them yesterday evening in the dark and caught them coming home from Long Beach, pelting them disagreeably with pieces of dead crab. Eleanor was just going to ask Toby whether he had eaten all his chocolate frog when she noticed that his heart was broken; as always at the sight of his dreadful babyish tears, her blood sprang up in rage against the world.

"What's happened, Toby? What is it?"

"They took it," Toby at last managed to articulate.

"They took your frog? Who did?" But Eleanor knew already; and meeting John's eye she took out her handkerchief and tried to repair Toby's face, which as John said was all slobbered up.

"You should have hit them," John told Toby, quite meaninglessly, since Toby at five was scarcely to be considered a match for Savage's Gang, whose four members were all over the age of nine. What John meant, however, as Eleanor understood, was really that John himself at eight, was not a match for them either, and felt himself and Toby inferior beings.

"And there ought to have been a penny change," John continued. "Have you got that?"

"They took it," wept Toby.

Then they're thieves," Eleanor said. To take chocolate frogs was one thing; pennies, as they had all been taught, were quite another. "Savages and thieves. Now, " she went on, casting about for some way to change Toby's expression, which, like the look of a rabbit she had once wickedly released from a trap, made her feel quite powerless with misery, "come inside and I'll give you a wash. And a lump of sugar. Auntie's asleep in the front garden."

"Don't want any sugar," Toby, rejecting all kindnesses, staggered alone to the steps and crawled up them on all fours, to emphasize his feelings. Unwashed, he vanished under his bed where he would lie, Eleanor expected, till lunch-time.

- 9 -

13. What is the main reason that the writer compares the look on Toby's face to a rabbit that Eleanor had once wickedly released from a trap?

○ to make a joke about Toby's situation
○ to make us feel that Toby is small and helpless
○ to let us know that Eleanor is kind to animals
○ to let us know that Toby is a silly boy

14. Which word would best replace the word "barked" in paragraph one?

○ skinned
○ bounced
○ growled
○ rubbed

15. What does the first paragraph mainly describe?

○ what Toby's street looks like
○ the Savage Gang's attack on Toby
○ Toby's journey back from the shop
○ Eleanor and John in the garden

16. What do you think the children in the story had been taught about the difference between stealing a chocolate frog and stealing pennies?

_____

_____

17. Write a phrase from the text that tells us that Eleanor feels protective of Toby

_____

_____

Read Twinkle Twinkle Star Colours and answer questions 18 to 23.
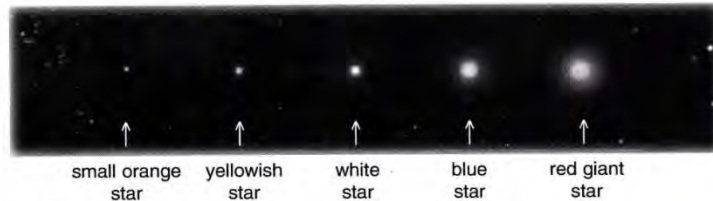

Stars come in many different sizes, temperatures and colours.

The Birth of a Star

Stars and planets were formed (and are still forming) from dusty hydrogen clouds in space. Billions and billions of these tiny bits of dust and hydrogen are pulled towards each other by gravity, and they squash together. As they squash in more and more tightly, they heat up.

If the amount of dust and hydrogen is large enough, it gets so hot that it fires up—in a huge nuclear reaction. It is then a star. However, because the star has so much gravity, it doesn't usually blow itself apart at this stage.

As a star grows older, it changes size and colour. Small stars have an orangey colour. Slightly bigger stars, like our sun, are more yellowish, and stars that ar even bigger may look white. Some really big stars get about five times as hot as our Sun and look blue. After billions of years, a star will have used up its nuclear fuel, and it will start to cool down. At this stage, it will look red and be known as a red giant.

| small orange star | yellowish star | white star | blue star | red giant star |

Black Holes

In the end, a star either blows itself to pieces (a supernova), collapses down to become a small dead star (a white dwarf), or may, if it was very big to begin with, squash so far in on itself that it becomes what astronomers call a black hole.

Think about it. Next time you are awake on a clear night, look up at the sky. The stars may seem white, but you will know that really, the sky is filled with stars of different ages, temperatures and colours.

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18. This information is mainly about the

　　○　history of astronomy.
　　○　appearance of stars.
　　○　composition of planets.
　　○　location of the Earth in space.

19. According to the information, from which two things are stars formed?

　　(i) _____

　　(ii) _____

20. A supernova takes place when a star

　　○　collapses.
　　○　becomes a black hole.
　　○　blows up.
　　○　is being created.

21. According to the information, what usually prevents a newly formed star from blowing up?

　　_____

22. List two characteristics of a star which change as a star ages.

　　(i) _____

　　(ii) _____

23. Write the numbers 1, 2, 3, 4 and 5 in the boxes to rank these stars from smallest (1) to biggest (5).

yellow star	white star	orange star	red giant	white dwarf
☐	☐	☐	☐	☐

Read the newspaper article and answer questions 24 to 30.

"Intolerable" behaviour caused Te Wiata's exit

By BRONWYN SELL

Actor Rima Te Wiata walked off the stage in the middle of the play *Woman Far Walking* in frustration, after three cellphones rang nd two pagers beeped in the audience.

Anna Robertshawe, business manager for the theatre company said, "The last straw was when Te Wiata was distracted by a man in the second row eating sweets."

The response to her sudden departure was mixed.

Te Wiata was criticised by an audience member, Ron Wilson, who said she **demanded** that the man leave and swore loudly before leaving the stage.

In support of the actress, the theatre company said the disruptions had become intolerable for Te Wiata and she was unable to proceed with the Witi Ihimaera play. Anna Robertshawe said the venue, Auckland's Herald Theatre, was intimate and disruptions were magnified by the audience being close to the stage. She apologised for "this unexpected and very unfortunate incident" and said tickets for that Monday's performance would be refunded.

Another audience member, retired Maori Professor Ranginui Walker said Te Wiata's actions were justified because she was being insulted spiritually and professionally. Professor Walker said Te Wiata had been performing an emotional scene about influenza deaths in the Maori community in 1918 and she was "quite right in doing what she did. The behaviour was crass. You're not at a movie. When you're at a play it's a live performance. But worse still, it's also wairua – spiritual. When Maori are performing a thing like that they are actually with their ancestors, performing on behalf of their ancestors, the past and the present are one."

"They're giving it their all, the emotional output is just draining and to see some crass individual at the front, eating sweets, is just intolerable."

He said audience members were stunned and some sitting near him were "**tut-tutting**" that the "spell was broken by this unseemly behaviour."

Veteran actor Raymond Hawthorne said last night it was very hard for an actor when disruptions occurred but walking out was a last resort. "My natural inclination is just to plough on regardless, but this problem of cellphones ringing and pagers going in theatres is a dreadful thing."

New Zealand Herald,
22 June 2000

24. What is the best word to describe how Te Wiata felt when she left the stage?

○ insulted
○ spiritual
○ distracted
○ insecure

25. Which of the following things occurred first during Te Wiata's performance?

○ Te Wiata was criticised
○ An audience member ate sweets
○ Te Wiata left the stage
○ Three cellphones rang

26. The word closest in meaning to *demanded*, as it is used in the text, is

○ expected.
○ requested.
○ insisted.
○ asserted.

- 13 -

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27. Which of the following is an opinion?

   ◯ *Professor Walker said Te Wiata had been performing an emotional scene...*
   ◯ *Actor Rima Te Wiata walked off the stage in the middle of the play...*
   ◯ *The response to her sudden departure was mixed.*
   ◯ *This problem of cellphones ringing ... in theatres is just dreadful.*

28. The main purpose of this article is to

   ◯ criticise the performance of Te Wiata in the play **Woman Far Walking**.
   ◯ report the events surrounding a performance by Te Wiata.
   ◯ give the author's opinion of the behaviour of the audience.
   ◯ draw attention to the problem of influenza deaths in the Maori community.

29. Professor Ranginui Walker said some of the people in the audience were *tut-tutting*. This means that some of the audience

   ◯ thought Te Wiata's behaviour was appropriate.
   ◯ laughed and talked during the performance.
   ◯ were eating sweets in a noisy manner.
   ◯ disapproved of Te Wiata's actions.

30. Which part of these quotes most likely fit the views of the actor Raymond Hawthorne?

   ◯ Spiritual performances need to be afforded more respect.
   ◯ Te Wiata did the right thing in leaving the stage.
   ◯ Disruptions are frustrating but the show must go on.
   ◯ Theatre goers should have an apology and their tickets refunded.

Read Book Reviews on the Web to answer questions 31 to 37.

BOOK REVIEWS ON THE WEB

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Book Title: **The House That Jack Built**   Author: **Gavin Bishop**   Publisher: **Scholastic, NZ**

1. Would you recommend this book?   **2. How many stars do you give this title?**

◉ Yes ○ No

**3. Please enter a one-line
summary of your review:**   A very informative book. Amazing use of pictures.

4. Type your review in the space below: Maximum of 1,000 words.

I liked this book. It is based on the retelling of a traditional rhyme, set in New Zealand at the turn of the 19th
century. But it's different because it seems both new and old at the same time. The pictures in the book are
fascinating and the use of imagery is amazing. I read in another review that the pictures included in the book
are **metaphor** for what happened when European traders, sealers, whalers and settlers arrived in
Aotearoa/New Zealand during the early 19th century. The illustrations are certainly full of meaning.
The story begins when Jack Bull arrives in Aotearoa in 1798 to find a land strong in spirit and tradition. The
Maori, the people of the land, want his iron pots, nails and blankets to enhance their daily lives. They trade
and Jack builds a house but problems arise as a steady flood of European settlers follow him and things start
to change in the Maori world.
To the Maori, the land is their Earth Mother, Papatuanuku, who gives life to all things. But, the settlers
pressure the Maori to give up their land to build farms and towns. The loss of tribal land and the failure of the
Treaty of Waitangi in 1840 to bind the two peoples together, leads to conflict. Tumatauenga, the Maori god of
war, calls the Maori people to fight for Papatuanuku. As he grows strong on the land, the Earth Mother's
presence fills the page and the remains of the house that Jack built smoulder in the foreground as a **symbol
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The illustrations on each page seem to tell as much of the story as the words. At the beginning, we see the
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I enjoyed this book enormously. I liked the multilayered illustrations because they are integral to the telling of
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Zealand prize winner by Maurice Gee, The Fat Man, is a fantastic read. Watch out for a
twisting plot. It is scary at times and very descriptive. You can almost "see" the story unfold
as you read the words.

6. Enter your email address

katyclare@coldmail.co.nz   Submit Form

Internet zone   Adapted from http://www.nzbooks.com

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31. How many stars would Katy Clare most likely give this book?

○ ★ ★ ★ ★ ★ Outstanding
○ ★ ★ ★ ★ Recommended
○ ★ ★ ★ Okay, but not great
○ ★ ★ Disappointing
○ ★ Poor

32. What is the main purpose of this review?

○ to give detailed information about European settlement
○ to retell a traditional rhyme
○ to describe the illustrations in the book
○ to express an opinion about a book the writer has read

33. What do the books that have been chosen as related titles have in common?

○ They have all been written by the same author
○ They rely heavily on imagery
○ They have strong characterisations
○ They have a sharp twist in the plot

34. Write a word that would best replace the word **"diminishes"** in paragraph three.

_____

35. Which of the following would best describe what Katy Clare feels about the role of illustrations in the telling of this story?

○ They are multilayered.
○ They are informative.
○ They are insightful.
○ They are integral.

36. In what ways are the styles of the illustrations in the book for Maori and Europeans different?

_____

_____

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37. The smouldering remains of Jack's house are said to be a **"symbol of the conflict"** between early Maori and Europeans. Explain what this image represents.

_____

_____

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Year 2 Cloze Test (Fiction)

Name: _____ Date: _____

**Please complete the words when only the first letter is given.**

There was o_____ a little o_____
lady who l_____ in a s_____ house.
One sunny a_____, she decided to
m_____ a gingerbread man to c_____
her up as she was feeling a little sad and u_____ .
In the k_____ of her l_____
house, she used two s_____ red currants for his
e_____ , a blueberry for his nose and some
s_____lemon peel for his m_____, so he
was very c_____! She made his coat by using
s_____, so it would be sweet to eat. To help
her take the ingredients out of the containers, she used a
t_____ and placed the ingredients in her
l_____ mixing bowl. The o_____ lady put
the gingerbread man in the oven to b_____ .

One hour later, she t_____ him out of the oven
and p_____ him on the table to c_____,
as he was very h_____ to touch. He looked

d_____ and t_____ to eat!
The o_____ lady thought he would be cheerful and
friendly, but in the end, he was the opposite and turned out
to be u_____ and he was very
n_____. The gingerbread man j
_____off the k_____ table
and r_____ out of the h_____! The
o_____ lady was very a_____, He
looked back at her and s_____"Run, run, as
f_____ as you can, you can't c_____ me
I'm the Gingerbread Man!"
On his journey, he walked along a f_____
and met many a_____. First of all, he met
a horse who s_____ "please stop! I only want
to talk to you and enjoy your company", but the
Gingerbread Man kept r_____. Next, he met
a cow who c_____ out "please stop and let's be
friends!" but like the horse, he wasn't able to
s_____ him. A few hours l_____,
when it was almost d_____, he met a fox who
said he
would help the Gingerbread Man by carrying him across the
river on his b_____, but the fox was very
c_____
and s_____. He tossed the Gingerbread Man into
the air,
o_____ his mouth and g_____ him
up!

Year 2 Vocabulary Cloze Test (Nonfiction)

Name: _____ Date: _____

Please complete the words when only the first letter is given.

Rubbish

Rubbish is usually thrown into a t_____ can or a rubbish bin. After that, it will eventually end up at somewhere called a l_____. Rubbish such as p_____ bottles may stay at such places for h_____ of years!

Sometimes the rubbish that we t_____ away ends up in the o_____ where it can hurt the animals living there.

Instead of throwing our rubbish in the t_____ can or rubbish bin we could r_____ instead.

P_____ can be r_____, for example, and be turned into something new such as toys!

Bikes

Bikes or b_____ can be designed in different ways, but they all need a f_____ to make them move. A f_____ is made when we push our feet down on the bike's pedals. This then turns a p_____, which turns the back w_____ and then the bike moves.

Bones

Bones p_____ animals and _____giving their bodies shape and to help them move. F_____have l_____ backbones that bend. This allows them to easily move through w_____. Snakes have over 150 bones in just their backbone or s_____. In each bone has two r_____. In comparison, people have only 26 bones in their back bone or s_____.
S_____ can move in different ways because they have so many bones. Some s_____ can have over 300 bones in their bodies, compared to adult people who have 206 bones in total.
S_____ can bend their s_____ into an s-shape and p_____ and p_____ their way up a tree.

Year 6 Vocabulary Cloze Test (Fiction)

Name: _____ Date:
_____

Please complete the words when only the first letter is given.

Pili lives in a small v_____ near to a lake in a
c_____ called Tanzania, which is in the
c_____ of Africa. It was the dry season and the
weather was h_____.
Pili has a b_____ called Kiondo who is
fourteen years old. She feels he has a b_____
attitude, as he often says boys are t_____,
s_____ and b_____ than
girls. People who think like this are often called
s_____.
Pili is an u_____ and t_____
girl, as she always thinks of others. She works very hard for her
family, as her father d_____ when she was younger.
She usually carries a b_____ with fruits in it, such as
m_____ that she has picked off t_____.
Kiondo feels that it is his r_____ and
d_____

to look after Pili and their mother, as there are no other
m_____ in their family.
In this story, the wet w_____ arrives and the
river close to where they live bursts its b_____. Kiondo
is swept away by the river and nearly d_____, but he
is r_____ due to Pili being so b_____.
She realises that the situation is getting w_____
when she saw the flooding around the houses close to where
they lived. She believed everyone needed to leave
i_____.
Kiondo wanted to a_____, but Pili felt he had had a
great shock and needed to r_____ because he was
bleeding. Pili cleans Kiondo's wounds with
a_____ and used b_____
on his legs, but she is c_____ that
his wound might need s_____.
Pili, Kiondo and their friends walked into the hills to be safe
away from the floods. They found s_____ in a
cave, but Pili was c_____ about their mother
and if she was safe.
In the end, Pili and the other v_____ were
rescued by a h_____, which they recognised by
its u_____ sound.

Year 6 Vocabulary Cloze Test (Nonfiction)

Name: _____ Date: _____

Please complete the words when only the first letter is given.

Thunderstorms

Thunderstorms are rain showers with l_____
and t_____ and can occur all over the world.
Thunderstorms start with warm, m_____ air close to
the ground. Something happens to make this air
r_____ to the sky. As the m_____ air
r_____ it c_____ and turns into
water droplets. These droplets attach to dust
p_____ in the sky and form
c_____. The clouds continue to r_____
and the droplets grow and become h_____ and fall
as raindrops.
If the air gets too cold, the water drops turn into i_____.
When a bright streak of light cuts through the sky we will see
l_____. This can sometimes be seen
f_____ between the clouds or it can hit the
ground.

L_____ actually strikes Earth 100 times every s_____! Heat usually causes air to e_____. L_____ is five times hotter than the temperature at the s_____ of the sun. Its super heat will cause the surrounding air to e_____ very quickly sounding like the air is exploding. What we hear is actually thunder.

When a thunderstorm is supersized we get a s_____ storm, which in turn, can create t_____. These are f_____-spinning columns of air that can reach from the storm clouds right down to the ground.

The most s_____ thunderstorm is called a supercell and luckily, they are r_____. Winds can reach s_____ of up to 282 k_____ or 175 m_____ per hour. Storm clouds can s_____ up to 16 k_____ or 10 m_____ into the sky. Up close, the sky looks b_____, the winds become stronger and balls of ice the size of soft balls will hit the ground!

A supercell can last for hours c_____ to thunderstorms which usually last for around 30 minutes.
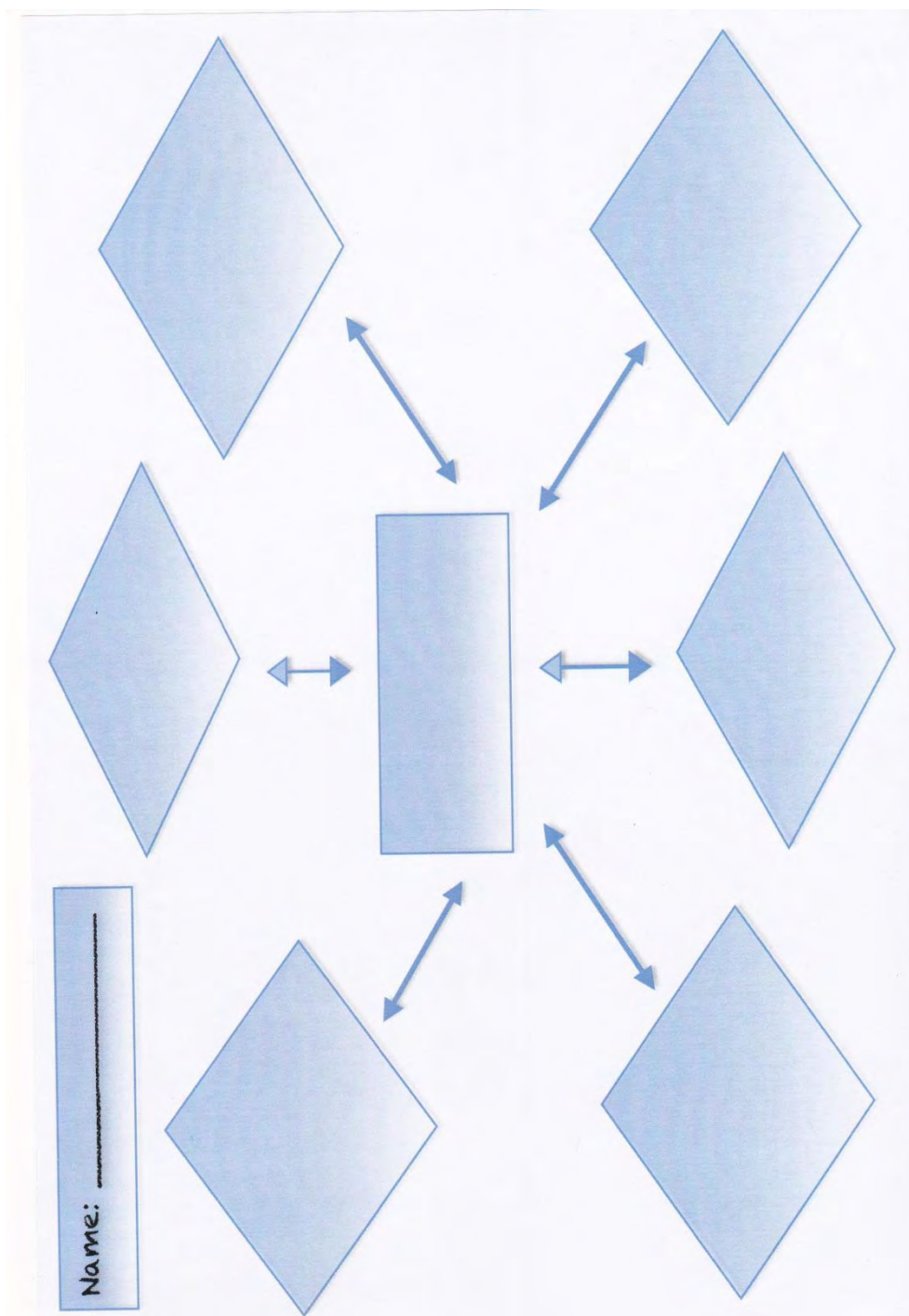
APPENDIX O
COPY OF INTIAL PERMISSION LETTER SENT TO PARENTS OF YEAR 2 STUDENTS IN STUDY 2
NOTE. FOCUS SCHOOL LETTER HEAD AND EMAIL ADDRESSED REMOVED FOR ANONYMITY

31st August 2011

Dear Parents of Year 2 Students

I am in the final stages of completing some postgraduate research, the foci being the vocabulary and reading comprehension of primary aged children. It is hoped that the findings of the research will assist the school in the teaching and learning of these areas in the future.

I plan to teach skills relating to reading comprehension after school on Mondays (between 3:15 and 4:15pm) over a period of 14 weeks in total. Due to the school terms, there will be 7 sessions between October and December and 7 sessions after Chinese New Year. Each session will last approximately one hour and there will be no homework. Participating students will be randomly selected into two foci groups that will either have a language focus (vocabulary related activities) or a curriculum focus (information text activities, for example, insects). The children will be tested before the teaching sessions begin and at the end to see if the content of the sessions has made a difference to their reading comprehension.

I am writing to ask if you would be willing for your child to participate please? At this stage, I would like to assure you that all data will remain completely confidential at all times, with no participating children being named.

If you are willing for your child to participate, please complete the reply slip below give to your child's class teacher, by Friday 9th September. If you have any questions, please feel free to speak to me or email me at: dsorrell@.........edu.hk
With many thanks and best regards

David Sorrell

---✂--

Reading Comprehension Intervention Programme: Year 2
Yes, I would be willing for my child _____ in Class _____ to participate in the
reading comprehension intervention programme to be organised and taught by David Sorrell.
I understand that my child's participation in the intervention programme is entirely voluntary and that I can withdraw my child at anytime should I wish to.

Signed: _____ Date: _____

APPENDIX P
COPY OF INTIAL PERMISSION LETTER SENT TO PARENTS OF
YEAR 6 STUDENTS IN STUDY 3
NOTE. FOCUS SCHOOL LETTER HEAD AND EMAIL ADDRESSED
REMOVED FOR ANONYMITY

31st August 2011

Dear Parents of Year 6 Students

I am in the final stages of completing some postgraduate research, the foci being the vocabulary and reading comprehension of primary aged children. It is hoped that the findings of the research will assist the school in the teaching and learning of these areas in the future.

I plan to teach skills relating to reading comprehension after school on Fridays (between 3:15 and 4:15pm) over a period of 14 weeks in total. Due to the school terms, there will be 7 sessions between October and December and 7 sessions after Chinese New Year. Each session will last approximately one hour and there will be no homework. Participating students will be randomly selected into two foci groups that will either have a language focus (vocabulary related activities) or a curriculum focus (information text activities, for example, insects). The children will be tested before the teaching sessions begin and at the end to see if the content of the sessions has made a difference to their reading comprehension.

I am writing to ask if you would be willing for your child to participate please? At this stage, I would like to assure you that all data will remain completely confidential at all times, with no participating children being named.

If you are willing for your child to participate, please complete the reply slip below give to your child's class teacher, by Friday 9th September. If you have any questions, please feel free to speak to me or email me at: dsorrell@..........edu.hk
With many thanks and best regards

David Sorrell
---✂---
Reading Comprehension Intervention Programme: Year 6
Yes, I would be willing for my child _____ in Class _____ to participate in the
reading comprehension intervention programme to be organised and taught by David Sorrell.
I understand that my child's participation in the intervention programme is entirely voluntary and that I can withdraw my child at anytime should I wish to.

Signed: _____ Date: _____

APPENDIX Q
STUDENT QUESTIONNAIRE

Your name: _____ Today's date: _____

These questions are for me to find out some more about your learning of English.

I will not tell anyone else what you have said. There are four pages altogether.

Thank you very much for your help!

Mr. Sorrell

Question 1

When you are speaking to your Mum and Dad, which main language do you use? *(Please tick one box only)*

Cantonese	☐	French	☐	Mandarin	☐
Dutch	☐	German	☐	Spanish	☐
English	☐	Hindi	☐	Thai	☐

Other language (please tell me which one):_____

Question 2

Do you enjoy reading in English?   Yes ☐   No ☐

Can you please tell me why you answered yes or no?

_____

_____

_____

_____

— Page 1 —

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Question 3

What was the last thing you read in English? *(Please tick one box only)*

School book	☐	Comic book	☐	Adventure book	☐	Magazine	☐
Poetry book	☐	Story book	☐	Information/ non-fiction book	☐	Internet website/ Email message	☐

Other (please tell me which one): _____

Question 4

Which type of book do you enjoy reading most in English? *(Please tick one box only)*

Story book	☐	Science Fiction book	☐	Comic book	☐
Adventure book	☐	Information/ non-fiction book	☐	Poetry book	☐

Other type of book (please tell me which one): _____

Why do you like reading your chosen type of book the most?

_____

_____

_____

_____

If you answered information/non-fiction book, are you interested in any particular subject(s)? If yes, which one(s) and why?

_____

_____

_____

_____

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Question 5

Have you ever had any problems learning new words in English? Yes ☐ No ☐

Can you think of any problems that you have had and explain to me what they were and how you coped with them?

_____

_____

_____

_____

Question 6

When you are learning new words in English, do you use any of the following to help you remember them? *(You can tick more than one box)*

Use an English dictionary ☐

Use a dictionary in English and your first language ☐

Think about the word in your first language (if not English) ☐

Ask friends and/or family for help ☐

Write the word down many times (repetition) ☐

Use particular Internet websites ☐

Reading stories, newspapers, magazines outside of the classroom ☐

Break the word up into its prefix, root and suffix ☐

Using pictures to help remember the new word(s) ☐

Other(s) (please tell me how): _____

Question 7

Do you think it is important to be able to communicate (read, write and speak) in English?

Yes ☐   No ☐

--- Page 3 ---

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Can you please tell me why you answered yes or no?

_____

_____

_____

_____

Question 8

I would now like you to think about the teaching sessions you had with me a few weeks ago.

Please be honest in your thoughts!

Did the sessions help you to learn new words?   Yes [   ]   No [   ]

Can you please tell me why you answered yes or no?

_____

_____

_____

_____

What helped you the most?

_____

_____

_____

_____

Thank you very much once again for your all your help!   🙂

Please return your questionnaire either to your class teacher or me.

Mr. Sorrell

APPENDIX R
PARENT COVERING LETTER FOR STUDENT QUESTIONNAIRE
NOTE. FOCUS SCHOOL LETTER HEAD AND EMAIL ADDRESSED REMOVED FOR ANONYMITY
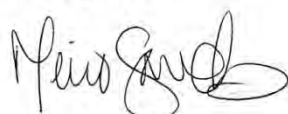
Monday 23rd April, 2012

Dear Parents

I am attaching a questionnaire that I would very much appreciate your child answering with regard to their learning of new words (vocabulary) in English.

Your child may need some help reading the questions. I would be grateful for your help, but please allow them to answer in their own words.

If the questionnaire can be returned to either your child's class teacher or myself before Friday 11th May please.

Many thanks, as always, for your continued support in my studies. If you have any questions about the questionnaire, please do ask me in person, or email me on: dsorrell@.........

Best regards

David Sorrell

APPENDIX S
STUDENT RESPONSES TO THE SUB-QUESTION
'DO YOU ENJOY READING IN ENGLISH?'
NOTE. STUDENT SPELLINGS UNCHANGED

Student identification number	Student comment
1-1	"Yes because I find storys exciting."
1-2	"I answered yes because I like reading fun stories and I know how to speak English super good."
1-3	"Because nearly every book I read is in English."
1-4	"Because it is really easy to write."
1-5	"English is eisiar for me to read then other languages."
1-7	"Because I like all the storys I've read."
1-9	"Because I always read English book at school."
1-10	"I chose to anser yes because English is my favrotie language."
1-13	"Because it is interesting!"
1-14	"Yes, because I like learning new things."
1-15	"Because reading is my favourite thing to do at home."
1-16	"Because it is fun."
1-18	"I like reading in English because I can learn somthing."
2-1	"When I am reading books I get to far away places in my mind."
2-2	"Because it is more easier to understand for me."
2-5	"I like to learn new things from books."
2-6	"I really don't know."
2-7	"Because English is the only language I can read in."
2-8	"Because there is jokes in some of my English books."
2-9	"I think the books in English are easier to read. Some are funny."
2-10	"Because Roald Dahl are easy to read."

2-11	"Because I like to learn more English words."
2-12	"Because I can only read English."
2-13	"Because sometimes you learn things and sometimes it is funny."
3-1	"I enjoy reading English because is the language I used when I was raised."
3-2	"Because sometimes I like to relly get into a book, but when I read whith my mum and it is a book that is boring for me I don't like reading."
3-3	"I answered yes because I know how to read better in English than Cantonese."
3-4	"I enjoy reading in English because I love to read novel books. Some of them make me laugh, feel happy and feel sad."
3-5	"I like reading in English because a lot of English books are interesting and I like reading in English because it would help me improve on my English."
3-6	"I like reading English because it's easy for me and I understand most of the words in English."
3-7	"I enjoy reading English because English is my first language."
3-8	"Because it's easy-since I've been learning since I was in nursery."
3-9	"I like reading in English because I think that the structure is better than Chinese and if I don't understand a word, the first few or last few words can help. Also, I learn English more than Chinese."
3-10	"I ticked yes because it is the only language I can speak fluently."
3-11	"I like to read in English because it is easier than Chinese."
3-12	"I enjoy reading in english because at school I read in english and my reading with Chinese is bad."
3-13	"Because reading other languages don't seem very interesting and reading in English is much more easier."
3-14	"Because I improve everytime and it helps me whith my spelling."
3-15	"I like reading in English because I find stories or book so intresting!"
3-16	"Because I can understand the words better then another

language because I speak English."

3-17	"I answered yes because I'm not good at reading Chinese."
3-18	"I enjoy reading in English because it is a chance for me to learn new vocabulary."
3-19	"I answered yes because English is a complicated language that must be studied to live in this world."
3-20	"I like reading because it creates a picture in your mind and you don't see it so you have to create it."

Student identification number	L1	Student comment
1-1	English	"Comic books because they are funny".
1-2	English	"I like to read story books because there funny".
1-3	Spanish	"Because I'm a boy and I like comics".
1-4	Cantonese	"Because it is interesting and exciting" (Story books)
1-5	English/Cantonese	"I like readiig adventures books because I like adventures".
1-7	English	"Because adventure books are exiting".
1-9	Mandarin	"Because I like reading them". (Story books)
1-10	Cantonese	"I chose an adventure book because I like adventures".
1-13	Cantonese	"Because it is very interesting!" (Story books)
1-14	Cantonese	"Because I think story books are more interesting and funny".
1-15	Cantonese	"Because it makes me happy and are interesting". (Comic books).
1-16	Cantonese	"I like to read non-fiction books because it tells you fact. Science".
1-18	English	"I like reading Fairy Guide books because there interesting.

		I like flower fairy books". (Story book).
2-1	English	"I just love them as they make me feel all sorts of things". (Story books).
2-2	Cantonese	"Because in the middle, they have a problem. But in the end, the solved it". (Story books).
2-3	English	"Because story book can tell you really nice stuff that you want to do in your life".
2-4	English	"Because they are funny". (Poetry books).
2-5	Spanish	"I like to learn about history". (Information/nonfiction books).
2-6	Cantonese	"Because it is a story". (Story books).
2-7	English	"Because I like the charicters in comic books".
2-8	Mandarin	"Because in one of my adventure book there is a bunny called Rolly just like my bunny!" (Adventure books).
2-9	Mandarin	"Story books are interesting. I like to learn about the characters".
2-10	English	"It's easy to read". (Story books).
2-11	Cantonese	"I like the home reader adventure best. I like other countries and brave things".
2-12	Cantonese	"Because they are funny sometimes and interesting". (Adventure books).
2-13	Dutch	"Because they always have fun adventures that I can dream about".
3-1	Cantonese	"I like story books because information books are like learning and is very boring".
3-2	English	"Because they are creative". (Story books).
3-3	Cantonese	"I like reading adventure books because they are very interesting and sometimes it is very exciting".
3-4	Cantonese	"I like the book I chose because it creates

		different objects by maybe adding something onto the object for example: A talking computer". (Science Fiction books).
3-5	Cantonese	"I like reading adventure books because I really like adventure stories, sometimes you don't know what's going to happen it makes me want to read more".
3-6	Cantonese	"I like reading adventure books because they make you want to read on because when something bad or exciting is going to happen it makes it very interesting".
3-7	English/Mandarin	"I like reading a story book because its adventures".
3-8	Cantonese/Mandarin	"Because I want to know more information". (Information/nonfiction books).
3-9	Cantonese	"I like adventure books because they make you want to carry on and makes you curious".
3-10	English	"I ticked yes because even though it's not true it uses your imagination and that interests me". (Story book).
3-11	Cantonese	"I like this type to book because I want to read some exciting". (Story book).
3-12	Cantonese	"I like reading story books because I think they are interesting".
3-13	Cantonese	"Because there is a lot of cliffhangers and suspense in adventure books".
3-14	Dutch	"Because of the suspense". (Story books).
3-15	Cantonese	"Because I like adventure books, my parents encourage me to read it".
3-16	English	"Because it is very interesting and I can create a picture in my head". (Adventure books).
3-17	Cantonese	"Cause I like fairy tale books".

		(Adventure books).
3-18	English	"Because I think it's the most exciting type of book for me". (Story books).
3-19	Cantonese	"I like adventure books because there is always a suspense and sot it gets addictive and you want to read more".
3-20	English	"I like a storybook because it's fun to see what happens in it".

APPENDIX U
STUDENT RESPONSES TO THE SUB-QUESTION
'CAN YOU THINK OF ANY PROBLEMS YOU HAVE HAD AND
EXPLAIN TO ME WHAT THEY WERE AND HOW YOU
COOPED WITH THEM?
NOTE. STUDENT SPELLINGS UNCHANGED

Student identification number	Student comment
1-4	"Too many words at the same time and guess the meaning."
1-10	"First I don't know what it means. Second the words is longer word. The last thing sometimes it is hard to spell."
1-13	"English is not my mother tounge, I need to learn more and try hard."
1-14	"When I learned new words, I didn't raise up my hand, but just waited for someone to explain more and help."
1-15	"Dialect/language/long words. I will ask for Mummy and teachers help. Sometimes I will read the book again to try to understand the words fully."
1-16	"Don't know what meaning."
2-7	"I had troble spelling "because" until I lernt a sentnse "big elfyfants can alwas understand small elyfants."
2-8	"Spelling, looking in books."
2-10	"Speeling's."
2-11	"New words and then I don't know how to speak the new words. I sound out."
2-12	"I get confused with rhyming words because they sound almost the same. I looked at the difference between the spelling."
2-13	"The word "difficult" wrote down, covered it and checked it again until it was right."
3-4	"I sometimes have trouble with spelling because sometimes I'm not sure how to spell hard words. I will cope them by looking in a dictionary or asking a friend."

3-6	"I had some problems with grammar, which were putting the prepositions in the right place and maybe some other stuff as well. I coped with them by practising and asking my tutors and I improved on it a little bit."
3-7	"I would ask my family and right it down many times."
3-8	"I don't really know."
3-12	"Some of the problems are how to read the words. my mum, tutor, dad or my helper helped me."
3-14	"In a book or when I am reading something and there is a new word I do not understand it is hard to read."
3-15	"I fogot how I coped with them and I don't remembet the words."
3-16	"I did not really understand some of the words so I use a dictionary."