LANGUAGE ACQUISITION RESEARCH

Papers presented at a Ministry of Education Forum held in 2003
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The Bilingual and Immersion Theme Team
Introduction

Kia ora, ni sa bula, talofa lava, kia orana, malo e lelei,
fakaalofa lahi atu, taloha ni, greetings

The language acquisition project originated from a cross-Ministry team called the Bilingual and Immersion Theme Team. The team was established to consider medium to long-term research needs in bilingual and immersion education across languages and mediums. After a series of discussions, the team identified language acquisition to be one of the key areas in need of further comprehensive research – particularly research which is evidence-based and grounded in the context of Aotearoa/New Zealand.

The purpose of the forum was to draw on New Zealand academic expertise and experience in the field of language acquisition and bilingual development to inform Ministry of Education policy and to share knowledge of Māori and Pasifika immersion and bilingual education.

The forum was held on the 9–10 October 2003 at the Brentwood Hotel, Wellington. Over the two days of the forum, researchers and academics presented papers that provided evidence-based knowledge around the following topics:

• relationships between language acquisition and cognitive development;
• evidence of the existing language experiences of learners;
• the interaction of language and culture;
• teacher expectations – what successful outcomes for students look like;
• models of effective practice for quality teaching and learning; and
• success factors in bilingual and immersion education.

The audience included Ministry of Education staff, presenters of papers, and other academics involved in the area of language acquisition in bilingual and immersion education. In addition, representatives from other organisations associated with education and language development were in attendance.

The forum’s key objective was to promote discussion about theories, models of practice and evidence of success in bilingual and immersion education, and to help identify priorities for future research. It provided opportunities for discussion at the conclusion of each presentation, together with a panel discussion involving presenters at the end of each day. This allowed researchers, academics, Ministry of Education staff, and staff from other organisations to explore options, possible directions and strategies to support schools and teachers who offer bilingual and immersion education, and the children and whānau who participate in these programmes.

This report is a compilation of papers presented at the Language Acquisition Forum.
Māori-Medium Education: Current Issues and Future Prospects

Stephen May and Richard Hill

Stephen May is Foundation Professor and Chair of Language and Literacy Education and Research Professor in the Wilf Malcolm Institute of Educational Research at the School of Education, University of Waikato.

Richard Hill is a lecturer in Policy, Cultural and Social Studies at the School of Education, University of Waikato.
Māori-Medium Education: Current Issues and Future Prospects

Stephen May and Richard Hill

Abstract

This paper explores the international and national research literature on bilingual/immersion education in order to extrapolate key indicators of good practice for the further development of Māori-medium education in Aotearoa/New Zealand. The paper situates Māori-medium education within the wider international literature, as well as highlighting the distinctiveness of Māori-medium education and the particular opportunities and challenges facing it. The paper concludes with recommendations for the ongoing development and extension of Māori-medium education.

INTRODUCTION

In Aotearoa/New Zealand, bilingual education and immersion education have tended to be regarded as quite distinct from one another (with the former usually being viewed less favourably than the latter). However, the international research literature consistently identifies immersion education as one form of bilingual education. We can see why this is the case if we take the following classic definition of bilingual education, posited by Andersson and Boyer (1970):

*Bilingual education is instruction in two languages and the use of those two languages as mediums of instruction for any part, or all, of the school curriculum. (p. 12) (their emphasis in the first instance, ours in the second)*

Put simply, bilingual education involves instruction in two languages (see also Baker & Prys-Jones, 1998; Cummins, 2003; Freeman, 1998; Hamers & Blanc, 2000; Holmes, 1984; Skutnabb-Kangas, 1981). This immediately excludes programmes that include bilingual students but do not involve bilingual instruction, most notably English-only submersion programmes. It also excludes programmes where a second language (L2) is taught as a subject only. English as a second language (ESL) classes are examples of this, as are foreign language classes, both of which are common in Aotearoa/New Zealand schools.

For a programme to be deemed to be bilingual, the key is that both languages must be used as media of instruction and thus to deliver curriculum content. As Baker and Prys-Jones (1998, p. 466) conclude: ‘If there is a useful demarcation, then bilingual education may be said to start when more than one language is used to teach content (e.g. science, mathematics, social sciences, or humanities) rather than just being taught as a subject by itself’. On this basis, immersion models that teach predominantly through a minority language, such as French-immersion or Māori-immersion programmes, are also clearly bilingual programmes, since some curricular instruction in the majority language (English, in both cases) almost always occurs at some point prior to the end of the programme, even in those programmes with very high levels of immersion in the minority language. There are specific issues here with respect to ensuring that academic language proficiency in both languages occurs – that is, the successful achievement of biliteracy – but these concerns will be addressed more fully later in this paper.

An additional key point addressed by many commentators in defining bilingual education relates to the goals and outcomes of any given programme. In short, does the programme in question aim to achieve, foster and/or maintain

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1 This paper summarises the key findings of a recent Ministry of Education-commissioned research project, May, Hill and Takawau, 2003.
longer-term student bilingualism and biliteracy (additive bilingualism), or does it aim eventually to shift students from bilingualism to monolingualism in the dominant language (subtractive bilingualism)?

Additive bilingual education approaches include those that teach in students’ L1, if this language is different from the majority language (as, for example, with L1 Spanish-speakers in the USA), in order to promote eventual bilingualism and biliteracy. This approach is based, in turn, on the developmental interdependence principle (see Cummins, 2000a), where acquiring literacy in one’s first language (L1) is seen to provide the strongest basis for successfully transferring these literacy skills to a second language (L2) such as English. In the Aotearoa/New Zealand context, such an approach is most congruent with Pasifika bilingual education, since many Pasifika families still speak a Pasifika language in the home and/or in community contexts.

Additive bilingual education also includes those programmes that teach in a minority or target language that is an L2 for many students – as is the case predominantly in Māori-medium education. This is because the specific aim of such programmes is to maintain the target language (thus ensuring bilingualism and biliteracy) in the face of a majority language that would otherwise swamp it – hence, the need to teach through the medium of the target language to ‘ring fence’ the language. Again, the interdependence principle underpinning the successful achievement of bilingualism and biliteracy can be said to apply here. However, instruction in a minority language that is an L2 for many students – such as te reo Māori – requires recognition that attaining academic language proficiency in that language may take longer for such students, given the second language learning delay. The second language learning delay highlights the difference between acquiring conversational fluency in a language, usually within one to two years, and acquiring academic language proficiency, that is the command of classroom-based language, which takes as long as six to eight years (see Cummins, 2000a, 2000b; May, 2002, for further discussion).

Given this discussion, Janet Holmes’ early definition of bilingual education in the Aotearoa/New Zealand context can still be said to apply today:

A bilingual education programme is one intended to promote bilingualism either by the predominant use of a minority group language [that would not otherwise be maintained] or by the use of two languages as mediums of instruction in school. (Holmes, 1984, p. 1)

On this basis, we can also discuss in more detail the key characteristics of effective (and less effective) bilingual programmes, as highlighted by the international research literature.

KEY CHARACTERISTICS OF BILINGUAL PROGRAMMES

There is already a welter of different classifications of bilingual education in the research literature. Many of these take different points of reference in demarcating among bilingual education models and programmes and are therefore not directly comparable (see, for example, Hornberger, 1991; Skutnabb-Kangas, 2000; Baker, 2001). That said, there are three broad models of bilingualism that are consistently included in these various typologies. These are transitional models, maintenance models and enrichment models of bilingual education – although, as Hornberger (1991) states, enrichment models are also often elided with maintenance models. In addition to these three broad models, we will discuss where heritage bilingual education, which includes Māori-medium education, is situated.

Transitional Models

A transitional model of bilingual education uses the L1 of minority language students in the early stages of schooling but aims to shift students away from the use of their L1 as quickly as possible towards the greater use of the dominant language (English in the context with which we are concerned), in order to cope academically in ‘mainstream’ or general education (Freeman 1998; de Mejia, 2002; Otheguy & Otto, 1980). In other words, the L1 is used only to the extent that it facilitates the transition of the minority language speaker to the majority language.
Accordingly, most transitional programmes are also ‘early-exit’ programmes, where the L1 is used for only one to two years, before being replaced by the L2.

Transitional bilingual education acknowledges the significance of the interdependence of languages, along with the benefits of using L1 as a bridge to the acquisition of L2. Despite this, however, transitional bilingual education also clearly holds to a subtractive view of individual and societal bilingualism. In assuming that the (minority) L1 will eventually be replaced by a (majority) L2, bilingualism is not in itself regarded as necessarily beneficial, either to the individual or to society as a whole. This in turn suggests that the eventual atrophy of minority languages, or the aim of moving eventually from bilingualism to monolingualism in the majority language, remains a central objective of transitional bilingualism programmes.

Examples of this type of transitional bilingual approach in Aotearoa/New Zealand were the early Māori bilingual programmes of the 1970s, which were established in rural Māori-speaking areas such as Ruatoki in the Bay of Plenty, as well as at Hiruharama on the East Coast. While these programmes incorporated Māori language and culture dimensions, the main aim was to shift the students towards greater use of English, rather than the retention of Māori itself (Benton, 1981).

Apart from this, transitional bilingual programmes have seldom been implemented in Aotearoa/New Zealand, except at the localised school level. This is in marked contrast to the USA, for example, where transitional programmes were developed widely for Spanish (L1) speakers from the 1970s onwards. The principal reason for their lack of implementation in Aotearoa/New Zealand has been a long-standing (and ongoing) preference for English-only or English-submersion educational approaches for ethnolinguistic minority students in general education, supplemented with ESL withdrawal support. This has been reinforced by the low densities of ethnolinguistic minority groups within Aotearoa/New Zealand, at least until recently.

Maintenance Models

A maintenance approach to bilingual education, on the other hand, differs fundamentally from a transitional approach because it aims to maintain the minority language of the student, strengthen the student’s sense of cultural and linguistic identity, and affirm their individual and collective ethnolinguistic rights. The typical participant in a maintenance bilingual programme will be a national minority group member (e.g. Welsh in Britain, Catalan in Spain, French Canadian in Canada) whose L1 is already developed to an age-appropriate level (although they do not need to be literate yet in the language). The language of instruction of the programme will either be predominantly in the L1 or, if both L1 and L2 are used as mediums of instruction, at least 50% in the L1. This is because the aim of such programmes, as their designation suggests, is to maintain the L1 for a sufficient amount of time so that academic language proficiency in the L1 is achieved. This in turn facilitates the acquisition of literacy in an L2, on the basis of the developmental interdependence principle. Consequently, the most common programmes in a maintenance bilingual model are late-exit programmes – that is, the use of L1 as an instructional language continues for at least four years.

Enrichment Models

Enrichment programmes, a term first coined by Fishman (1976), are closely related to maintenance bilingual programmes. If maintenance bilingual programmes are geared towards maintaining the L1 of minority language students, enrichment programmes are generally (but not exclusively) associated with teaching majority language students (such as L1 English speakers) through a minority target language. French immersion in Canada, where many of the students come from middle-class L1 English-speaking homes, is perhaps the most often cited example of an enrichment bilingual programme here. Welsh-medium schools, which also include many middle-class L1 English speakers, are another example (see May, 2000). Elite bilingual programmes such as the European Schools

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movement are also widely regarded as enrichment programmes (Skutnabb-Kangas, 1981; Valdes and Figueroa, 1994).

As with maintenance programmes, the emphasis in enrichment programmes is not just on achieving bilingualism and biliteracy for individual students but also on the ongoing maintenance of the minority language(s) in the wider community. As Hornberger argues, the enrichment model ‘encompasses all those bilingual education programme types which aim toward not only maintenance but development and extension of the minority languages, cultural pluralism, and an integrated national society based on autonomy of cultural groups’ (1991, p. 222). Linking the individual and the social directly in this way emphasises that maintaining a minority language is not only an individual right of its (minority) speakers but also a potential resource for all speakers. Accordingly, Hornberger (1991) argues that this type of programme has the greatest potential to educate students successfully in bilingual programmes, given its strong additive bilingual basis. It is also the programme most likely to reduce the educational and wider social and linguistic inequalities experienced by minority language speakers.

Heritage Models

This broad L1/L2 distinction between maintenance and enrichment approaches is a useful one, or at least a useful form of shorthand, in the literature. However, it does not necessarily help us to identify clearly where a heritage language model of bilingual education might fit in. This model is most commonly associated with indigenous language revitalisation efforts, and thus Māori-medium education, along with a wide range of other indigenous language education initiatives, is seen as part of this broad approach (see Hinton & Hale, 2001; May, 1999, 2003b for further discussion). Some of these indigenous language programmes are aimed at students who still speak the indigenous language as an L1 (e.g. Navajo and Hualapai in the USA; Inuit in Nunavut, Canada; Sámi in Finnmark, Norway) and may therefore be regarded as L1 maintenance bilingual programmes. But many also cater for students with a mix of L1/L2 speakers of the language (Māori, Hawaiian), and some have only L2 speakers (or, rather, learners) of the language (the master/apprentice programme developed for the now largely moribund indigenous languages of California) and are therefore closer to the enrichment end of the continuum.

And yet, where heritage language programmes are discussed in the research literature, they tend to be described simply as an example of maintenance bilingualism, with the allied presumption that the majority of their students are L1 speakers of the indigenous language (see, for example, Baker, 2001). Given the clear continuum between maintenance and enrichment models, this description can be defended. Indigenous language programmes are, after all, most often based on additive bilingualism, with instruction in the indigenous language a central feature of these programmes. Moreover, there clearly are heritage language programmes that still comprise a majority of L1 speakers. However, even in indigenous language programmes that have traditionally drawn primarily from L1 speakers, more L2 speakers are increasingly present. For example, McCarty (2003) notes that in the Navajo heritage language programme at Rough Rock in Arizona – one of the strongest and longest established in the USA – only 50% of Navajo now speak their own language, and their numbers are declining each year.

The increasing presence of L2 speakers in heritage or indigenous language programmes is the ongoing consequence of already well-established processes of language shift or loss for such languages. These changing language patterns for indigenous language speakers have much to do, in turn, with the rapidly increasing influence of English as a global language, allied with the long history of subtractive bilingualism discussed earlier (see Skutnabb-Kangas, 2000; May, 2001). They certainly make the maintenance of indigenous languages considerably more difficult. Given this, it is crucial that both the international and national research literature begin to address more clearly the specific consequences of the increase in L2 speakers in many heritage language programmes.

In particular, we need to distinguish, and if necessary differentiate between, the specific language and learning needs of L1 and L2 speakers or learners of the target minority language within these programmes. This can be
accomplished in ways that will further enhance the developmental and educational outcomes of all the students involved, but only if these issues are directly addressed. At present, the increasing presence of L2 speakers continues to be either ignored, or subsumed within the L1 group, even though their educational circumstances and learning needs may differ. This is true of the international literature (see, for example, Baker 2001) and the national literature on Māori-medium education (see below).

Bearing these specific concerns in mind, and also acknowledging the continuum or overlap between maintenance and enrichment models of bilingual education, the international literature does provide us with the following clear conclusions about what constitutes effective bilingual/immersion education. These include whether the programme:

- concurs with the elements considered essential in bilingual programmes, that is, it instructs in two languages, and/or has the target minority language as the medium of instruction for curriculum subjects;
- is additive in its philosophy of and approach to bilingualism;
- is a maintenance or enrichment programme, designed to maintain and, where necessary, develop further the target language of the students;
- has teachers who are fluent in both languages;
- has a duration of at least four years target language instruction, and ideally six to eight years;
- is at least 50% immersion in the target language, to allow greater exposure to the target language and thus a greater opportunity of becoming fluent in the target language; and
- introduces the target language early in the primary schooling rather than later.

These characteristics of effective programmes will now be explored in relation to existing Aotearoa/New Zealand research on Māori-medium education.

**RESEARCH ON MĀORI-MEDIUM PROGRAMMES**

Māori-medium education is given regular and significant prominence in the international research literature on bilingual/immersion education, and is most often noted for its success in addressing the loss of te reo Māori (see Baker & Pry-Jones, 1998; see also, May, 1999; 2001, Ch. 8). Given this, it is surprising how little information is still available on the effectiveness of particular bilingual/immersion school programmes in Aotearoa/New Zealand, and more specific issues of bilingual/immersion pedagogy and practice. Keegan (1996) makes this observation in his brief review of immersion education, and the same can still be said today. Indeed, Rau (2003, p. 2) echoes Keegan’s observation directly when she comments that ‘to date, there is little comprehensive information available to describe the achievement of students being instructed in the Māori language, especially in their formative years’ (see also Berryman, et al., 2002).

More extensive research and assessment of bilingual/immersion programmes is thus urgently needed. Such research might assess effectiveness and student achievement, but it might also examine existing pedagogy and practice – highlighting good practices, but also identifying where pedagogy and practice can be further improved and/or extended, in light of the wider research indicators (see also the discussion later on indicators of good practice).

Without such research information, it is very difficult to build upon the existing strengths of bilingual/immersion programmes in Aotearoa/New Zealand. Further research – particularly case-study and ethnographic research – into existing school-based models of good practice could also allow for a broader consistency of approach within and among individual school programmes. The still localised and often ad hoc implementation of bilingual/immersion
programmes at the school level, particularly in relation to the development of bilingual units within general or ‘mainstream’ schools, does not currently allow for this.

Nonetheless, the beginnings of a consistent research basis can now be seen and this section will discuss the most recent relevant research to date. The areas encompassed by this research include evaluations of Māori-medium programmes and the learning of the students who are involved in the programmes, teacher effectiveness in such programmes, and assessment processes and tools in Māori-medium contexts.

Jacques (1991)
One of the earliest evaluations of Māori bilingual/immersion programmes in Aotearoa/New Zealand was a doctoral study conducted by Jacques (1991) into the effectiveness of six South Island bilingual classroom-based programmes within mainstream primary schools. This study identified the strengths and weaknesses of these particular programmes, within the educational context of home, school and community. It focused on:

- identifying the rationales for the establishment of the Māori bilingual units;
- identifying structures in place within the school to promote the programmes;
- describing the operations of bilingual classrooms including availability of resources; teacher training and teaching practices; the roles and functions of the kaiarahi reo (language teaching assistants); and the incorporation of Māori language and culture into the curriculum;
- assessing the outcomes of the bilingual programmes, including the students’ affective development and development of English language skills; the retention of Māori language skills acquired at kōhanga reo; and the impact of the programmes on the school and wider community; and
- making recommendations for future programme development.

The research methodology consisted of quantitative and qualitative methods involving documentary evidence, interviews, classroom observations and surveys over an 18-month period from 1989 to 1990. The research participants included staff members, families, staff from kōhanga reo, and marae whānau.

Jacques found that the programmes were very successful in terms of the promotion of the students’ self-esteem, self confidence and cultural identity; the provision of culturally sensitive and safe environments; the inclusion of families; and the development of the students’ English language abilities. There were a number of factors, however, which militated against the promotion of te reo Māori and cultural maintenance goals. These included the following:

- the ongoing dominance of English as the language of instruction;
- the inadequacy of preservice and inservice training for associate teachers and kaiarahi reo with respect to teaching in bilingual contexts;
- the lack of adequate Māori language teaching resources for use in instruction;
- the lack of clear programme rationales;
- the lack of a clearly defined client-group (a wide range of students with differing fluency in te reo Māori were grouped together in classes);
- few effective support services;
• an absence of provision for the continuation of bilingual programming beyond primary school level;
• an absence of local planning/advisory groups to assist in the steering of the programmes;
• resistance among some staff and community to the programmes;
• little promotion of kaupapa Māori practices in the wider school structures; and
• a widespread feeling among whānau whose children went to kōhanga reo that their needs would be better met in a separate Māori language school, such as a kura, than in a bilingual unit within a mainstream school.

Māori language proficiency was not measured in the study. There were several reasons for this, one being that there were no measures at that time devised to assess the language and another being that the researcher was not herself a fluent speaker of Māori. Instead, an impressionistic assessment was made of the students’ fluency in Māori. The lack of data in such an important area and the researcher’s inability to speak te reo Māori is thus a fundamental weakness of this research. This same feature – failing to assess adequately the students’ knowledge of te reo Māori – is also a weakness of the Educational Review Office (ERO) evaluation of kura kaupapa Māori discussed below (see Education Review Office, 2002) and points to a wider concern about the ongoing inability of Aotearoa/New Zealand research, and researchers, to address such an important consideration.

Nevertheless, in terms of what evidence Jacques does present regarding fluency in te reo Māori, she reports that the students displayed their use of te reo on only a limited number of occasions, such as when reciting karakia and during mihi, and when they took part in Māori language musical activities. One can infer from this that te reo Māori use was thus limited to organisational rather than instructional language contexts. Likewise, in terms of listening comprehension, she observes that the students ‘seemed to comprehend the Māori language speech of teachers and kaiarahi reo, and would for example, sit down, or go outside when asked, [but] they showed little age appropriate proficiency in either oral or literacy-related tasks’ (p. 296, our emphasis).

In terms of the students’ English language skills, Jacques’ research utilised the Progressive Achievement Test to measure the students’ reading comprehension, reading vocabulary and listening comprehension across two of the schools in the research study. In all, 239 Year 4–6 students were tested. Of these, one quarter of the students were enrolled in a bilingual class (using around 10% of te reo Māori, the target language) and the remainder were enrolled in mainstream English-only classes. The results indicated that although eight of the comparisons employed favoured the bilingual students, there was no significant difference between these students and those in English-medium classes. However, Jacques does point out that being enrolled in a bilingual class was clearly not a disadvantage for these students in their English language acquisition when compared with those in mainstream English-medium classes.

In her conclusions, Jacques provides an important caveat regarding the results. Although the evidence from her results ostensibly matches those found in studies of many overseas bilingual programmes, all the bilingual programmes that she examined had a significantly lower ratio than the 50% ratio target language instruction – the minimum ratio considered to be characteristic of authentic bilingual programmes in the wider research literature (see also the section on indicators of good practice below). Consequently, the data gathered cannot be directly compared with such programmes. It is also highly likely that the comparable performance of bilingual students in English language skills was the result of other factors – such as cultural support – rather than linguistic factors.

\[^2\] In light of her previous observations, Jacques’ assessment here is highly likely to have been accurate. However, given the researcher’s own lack of fluency in te reo Māori, and the related lack of an accurate and appropriate Māori language assessment measure, some caution still needs to attend this conclusion.
Keegan (1996)

The paucity of adequate research on educational outcomes in Māori-medium education is also reflected in Keegan’s (1996) brief review of immersion education programmes. Keegan discusses the issues involved in bilingual education, overseas literature from countries that implement immersion programmes, and the benefits of bilingualism. In discussing Aotearoa/New Zealand research evidence, however, he points out that most of the studies available at that time were simply descriptive in nature – in terms of teaching and learning processes, language development, community support and involvement, and so on – rather than evaluative. A lack of adequate and appropriate language assessment tools in te reo Māori (see also below) was also acknowledged as a contributory factor to this.

Consequently, only two New Zealand studies which provide empirical data and clear evidence of the benefits of immersion education are discussed by Keegan: a study by Carkeek, Davies and Irwin (1994) and a report from the Ministry of Women’s Affairs (1993). Carkeek, Davies and Irwin (1994) compared the classroom behaviour of seven schools and found that Māori girls were most active in immersion classrooms, and more confident in taking teaching and leadership roles. The Ministry of Women’s Affairs report (1993) studied the career aspirations of Māori girls in four secondary schools. It found that these students were more likely to seek vocational advice from Māori teachers and that some of these students had been educated in a bilingual unit. However, issues of language achievement, or bilingual teaching and learning practices, were not directly addressed in either report.³

Hollings, Jeffries and McArdell (1992)

Significant research by Hollings, Jeffries and McArdell (1992) has addressed these issues directly, however, particularly with respect to assessment. In their study of 47 Māori-medium programmes, and via questionnaires and cluster interviews with 73 teachers in these programmes, they focused upon:

- Māori language assessment;
- variables affecting Māori language;
- teachers’ knowledge of assessment; and
- how assessment procedures are used in other situations (total immersion).

Results from the questionnaire found that teachers were using a wide variety of methods to assess Māori language development – generally, methods commonly found in mainstream schools, such as running records and the six year net. However, incidental observation was the method most often used because of a lack of appropriate benchmarked assessment tools for te reo Māori. The majority of teachers also felt that the available assessment procedures were not satisfactory.

Results from cluster meetings found that while various forms of language assessment were regularly implemented in these programmes, few teachers demonstrated a sufficient understanding of their efficacy for L2 learners, or their appropriateness to L2 contexts – a crucial omission, given that Māori is an L2 for most students in these programmes. It was also found that there was not much coordination in the recording of assessment. In fact, many teachers indicated that they based their decisions on a ‘feeling’ about the students’ progress as they worked with them.

On the basis of these findings, Hollings et al. concluded that while most classroom assessment was at that stage still largely anecdotal and intuitive, this was primarily because of a lack of appropriate language assessment resources and related training in them. Certainly, teachers in the programmes were anxious to get further guidance about

³ Interestingly, Keegan does not refer to Reedy’s (1992) initial evaluation of the six pilot kura kaupapa Māori. However, this may be because Reedy’s report provides little beyond observational comment on the pedagogy and practice of the kura programmes.
assessment practices. Accordingly, the study’s principal recommendation was to improve the resource materials base in Māori language for schools, including Māori versions of the major language and literacy assessment tools available to mainstream English-medium schools. Following from this, better coordination and sharing of information about language assessment among teachers in Māori-medium contexts should occur.


The 1990s saw the subsequent development of key Māori language assessment tools for junior primary levels – particularly Ngā Kete Kōrero and Aromatawai Urunga-ā-Kura. However, a more recent unpublished Education Review Office report of literacy practices in kura kaupapa Māori (Education Review Office, 2000) highlighted ongoing issues of concerns about language assessment, as well as raising wider concerns about the development of academic literacy in te reo Māori.

With respect to curriculum management and planning, for example, the report concludes that there was not always sufficient evidence of planning to guide teachers with programme implementation, particularly in written and oral language in te reo Māori. Oral language programmes, for example, were not always well planned and tended to occur only incidentally. Those teachers who did plan for the teaching of reading, writing and oral language in te reo Māori tended to plan only basic sessions of instruction referenced to the curriculum documents.

Feedback from the teachers in these programmes also consistently highlighted the following ongoing concerns:

- the inadequacy of current preservice and in-service teacher training in literacy development in Māori-medium contexts, particularly biliteracy development, and second language acquisition more broadly;
- that neither the Māori nor the English curriculum documents were seen as adequately supporting the teaching of reading, writing and oral language in Māori immersion settings;
- an ongoing lack of sufficient Māori language benchmark assessment resources, particularly at more senior primary levels, and a related lack of training in their use. However, those assessments that were available – particularly, Ngā Kete Kōrero and Aromatawai Urunga-ā-Kura – were valued highly; and
- an ongoing lack of adequate and appropriate teaching and learning resources.

A more recent summary of this report’s findings was published in 2002. The information from the 2002 report also incorporated the findings of the most recent reviews of 52 kura kaupapa Māori with immersion levels in te reo Māori above 80% (Education Review Office, 2002). As with its predecessor, the 2002 Education Review Office report continues to highlight the significant constraints experienced by kura in terms of teaching, evaluating, programmes, planning and management. Surprisingly, however, the report does not focus specifically on the quality of Māori language instruction or on the extent to which students were achieving fluency in te reo Māori. Only 16 of the 52 kura kaupapa Māori that were reviewed received specific comment regarding their te reo Māori programmes, of which the Education Review Office found that 12 had demonstrated good quality language programmes.

The report did comment on the instructional methods teachers used to teach te reo Māori and found that at 23 kura the methods were appropriate and likely to lead to competency in both te reo Māori and English, while at seven kura the teaching methods were less appropriate. However, the basis of this assessment is not stated, nor does the report

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4 Ngā Kete Kōrero is a Māori language method of organising reading materials into various levels of reading difficulty that was developed in the mid-1990s, although this does not currently extend beyond beginning and early reading texts. Aromatawai-Urunga-ā-Kura (AK3) is a standardised assessment tool to assess literacy and numeracy at school entry in te reo Māori and has been available since 1997. However, as Bishop, Berryman and Richardson (2001) have since found, it is still not widely used by Māori-medium teachers.
indicate the types of language competencies the reviewers focused upon – oral fluency, reading comprehension, and so on. Given the centrality of bilingualism and biliteracy to the educational aims and practices of these Māori-medium schools, the analysis and findings of this Education Review Office report are disappointingly light on these crucial details.

There were a high number of other areas of instruction, assessment and governance that the Education Review Office deemed to be of concern in around 50% of the kura kaupapa Māori studied. These areas included curriculum planning, curriculum delivery, student assessment, meeting individual needs, learning environments, administration and governance, the supply of staff and personnel, and teaching resources. The last two are largely beyond the control of the school, however, and are long-standing concerns in Aotearoa/New Zealand.

The report identified the greatest strengths of the kura programmes as the use of cooperative learning techniques in instruction, effective learning environments, safe environments and relationships with the community. There are, however, some ambiguities in these areas as well. For example, the report (2002, pp. 6–7)) finds that most kura have a good focus on providing an effective learning environment (62%). This statement does not match the statistics stated elsewhere in the report, however. In fact, earlier in the report, only 54% of kura were said to have adequate systems for identifying learning needs, 56% lacked effective mechanisms for assessing the progress and needs of the students, and curriculum delivery was effective in only 48% of the schools.

The available evidence from this ERO report would thus suggest some ongoing concerns about the further development of effective learning environments in Māori-medium contexts. That said, the specific experience and/or expertise of the reviewers in bilingual, second language and/or Māori-medium education, or the specific criteria underlying their assessments of the bilingual programmes, are never made clear. Thus, the validity and reliability of their conclusions cannot be accurately gauged.

Bishop, Richardson, Tiakiwai and Berryman (2001)

Bishop, Richardson, Tiakiwai and Berryman (2001) conducted a research project called Te Toi Huarewa that sought to identify effective teaching and learning strategies, effective teaching and learning materials, and the ways in which teachers assess and monitor the effectiveness of their teaching in Māori-medium reading and writing programmes for Year 1–5 students. The study focused, in particular, on effective teachers and employed the following methodology:

- the gathering of background information about the school in which the teacher operated;
- tasks involving the sorting of a selection of literacy resources into categories, asking for information about teacher planning, looking for evidence of available technological aids and asking teachers about their personal philosophy and strategies;
- observation of teaching practice and a “stimulated recall interview schedule”;
- general observations; and
- interviews regarding teacher perceptions of teaching and learning.

This research found that effective teachers in Māori-medium contexts create culturally appropriate and responsive contexts for learning by:

- creating caring relationships:
  - teachers respect and care for students and their whānau;
– students care and respect one another; and
– whānau principles guide practices.

• creating structured, positive and cooperative environments:
  – excellent classroom management and routines;
  – non-confrontational behaviour management;
  – mutually responsive relationships with whānau; and
  – parents who help with literacy tasks at home and school.

• using, recognising, and building on prior learning and experiences which promotes the tino rangatiratanga of the students:
  – matching learning strategies and materials to students’ prior knowledge and experiences; and
  – matching strategies and materials to abilities.

• using feedback:
  – positively reinforcing behaviour and academic achievement;
  – encouraging students to self-evaluate; and
  – using formative assessment to indicate direction of future teaching practice.

• using power-sharing practices:
  – using ako (reciprocal teaching and learning) in classrooms; and
  – promoting whānau contact with school, and parents helping at school and at home.

As with other commentators, Bishop et al. observe that Māori-medium education is still in its infancy and that knowledge about the most effective resources and strategies to be implemented in this setting are still being developed. However, they conclude that there clearly are Māori-medium teachers who demonstrate effective teaching and learning strategies for improving reading and writing strategies of their students. These teachers are making good use of the number of resources available, are increasing their own and other teachers’ understanding and expertise in the range of strategies that are available to them, and could well be used to help others improve their practice. These teachers were also found in a range of Māori-medium settings, including both kura kaupapa Māori and Māori-medium bilingual units in mainstream schools, and throughout the country (Bishop, Berryman, & Richardson, 2001). This strongly positive research thus contrasts, at least to some extent, with the other research studies discussed thus far, particularly Hollings et al. (1992). However, this is also likely a product of its particular focus on effective teachers, rather than the more general evaluative focus of the other studies.

National Education Monitoring Project

The National Education Monitoring Project (NEMP) has the task of assessing and reporting on the achievement of Aotearoa/New Zealand primary school students in all the subjects of the school curriculum. The main purpose is to provide detailed information about what students can do. Two recent reports have focused on the comparative
achievements of Year 8 Māori students involved in Māori-medium education (at 80% or above immersion) or within general (English-medium) education.

In 2000, NEMP focused on assessing speaking and reading skills (National Educational Assessment Research Unit, 2001), with 12 reading and speaking tasks being administered to these students. The tasks included reading comprehension, retelling a sequence that was viewed, completing a story and presenting an advertisement. Two tasks required all students to read Māori words or texts, although the task instructions were given in English for the Māori students in general education settings. The remaining 10 tasks were presented in Māori or English for the Māori-medium and English-medium students respectively. Administration of the tasks was either by videotape (nine tasks), one-to-one interview (one task) or station format (students work independently recording responses on paper; two tasks).

The results found that in three tasks the Māori-medium students performed at significantly higher levels than their English-medium peers. As one might expect, these included the two tasks that required all students to read Māori words or texts (pronouncing Māori words; oral reading in Māori). In five tasks, Māori students in both settings performed equally well (including presenting a news report; retelling a story from a picture book; completing a story). In four tasks, Māori students in general English-medium settings performed significantly higher (including, reading comprehension and retelling a video story). The same report also included research on music skills and technology skills for these students. From the total findings, the report concludes that in 55% of the tasks, both groups performed similarly. In 14% of tasks, the Māori immersion students performed better, and in 31% of the tasks the general English-medium students performed better (National Educational Assessment Research Unit, 2001).

An earlier NEMP report on science, art, graphs, tables and maps skills (National Educational Assessment Research Unit, 2000) also found a broad comparability between Māori students in Māori-medium and English-medium settings, with both groups performing similarly in 70% of the tasks. In the remaining tasks the English-medium students performed moderately better than the students in the Māori-medium programmes (National Educational Assessment Research Unit, 2000). While in this case the results were broadly similar, one clear advantage for the Māori-medium students was that they were able to perform as well as their English-medium peers, plus do so in their L2.

However, the 2001 report also specifically warns about generalising from these results, for several reasons:

1. The development and selection of some tasks may have advantaged the English-medium students, as mainstream teachers and researchers developed the majority of tasks.

2. The earlier assessments were translations of English texts with which the Māori-medium students may not have been familiar, and which may have also included unfamiliar dialectal vocabulary.

3. The activities in the Māori texts were often more complex than the English versions.

4. The sample of immersion students unexpectedly lowered by 16 with the withdrawal of two classes.

5. The students in the 1999 sample did not necessarily have stable Māori proficiency, as their te reo Māori abilities were not screened beforehand. Some may also have had only one or two years’ experience in Māori-medium contexts, thus also potentially disadvantaging them with respect to the assessment of grade appropriate material in te reo Māori (see the earlier discussions on the second language learning delay). In order to redress this, the second sample in 2000 included only those students with at least five years in Māori-medium education.

6. There are significant educational issues regarding the comparability of the English-medium and Māori-medium groups, given that Māori-medium education lacks resources and qualified teachers, something that Māori students
in general English-medium schools would not experience. Rau (2003), Durie (2001) and Rau et al. (2001) also specifically warn against the practice of comparing Māori with non-Māori and the use of non-Māori benchmarks to gauge Māori progress (see also below).

Finally, although it was not stated in the research, we do not know whether the groups were matched for socio-economic status. This could also distort the results.

Rau (2003)

Rau (2003) has examined and compared the Māori-literacy skills of groups of students involved in Māori-medium programmes with more than 80% immersion over two periods, 1995 and 2002–03. The purposes of this assessment were to observe the literacy achievement of students in te reo Māori after at least one year of instruction in a high immersion context, to identify those experiencing difficulty, and to provide information about the classroom programmes. This, according to Rau, is important because no other standardised assessments currently exist in Māori that provide such comprehensive literacy information for students in the first three years of schooling.

Rau used a set of Māori-developed literacy assessments including those which tested letter identification (te taūtu); concepts about print (ngā tikanga o te tuhi kōrero); word recognition (te whakamātautau kupu); writing vocabulary (te tuhi kupu); hearing and recording the sounds in words (whakarongo, tuhia, ngā tangi o roto i ngā kupu); and text reading (te pānui pukapuka). The participants were 97 students aged 6.0 years to 7.0 years (the 1995 group), and 100 students aged 6.0 years to 7.0 years (the 2002–03 group) who came from four districts as shown in Table 1.

Table 1: Number and Location of Schools Where Students Contributed Results from Testing Using He Mātai Mātātupu to a National Database

<table>
<thead>
<tr>
<th>No. of participating students</th>
<th>1995</th>
<th>2002–2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Auckland</td>
<td>16 Auckland</td>
<td></td>
</tr>
<tr>
<td>53 Waikato</td>
<td>28 Waikato/Bay of Plenty</td>
<td></td>
</tr>
<tr>
<td>34 East Coast</td>
<td>32 East Coast/Hawkes Bay</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 Wellington/Southland</td>
<td></td>
</tr>
</tbody>
</table>

The results were as follows:

1. Students in the 2002–03 age band consistently scored better than students in 1995 across five of the six tasks.

2. Students in the older age bands consistently scored higher than the younger age band on all tasks for both the 1995 sample and the 2002–03 sample.

3. Overall, there was little difference between the performance of boys and the performance of girls for both the 1995 and 2002–03 samples.

Rau argues that the different findings evident in 1995 and 2003 are attributable to a range of factors, including increased support for, and resourcing of Māori-medium programmes, particularly since 1998. In particular, such resourcing has included:

- the development and promulgation of Ngā Kete Kōrero. This framework has provided much needed organisation of junior reading material in te reo Māori into increasing levels of difficulty, comparable to those in English-
medium material. Teachers potentially are able to make better matches between reading material and learner need/ability as a result;

- the increased quantity and improved quality of reading instructional material available in te reo Māori (although more is needed);

- the increased recognition and development of epistemology and pedagogy for Māori-medium contexts;

- the increased provision of Māori-medium-specific professional development in literacy for teachers, particularly via the Ministry of Education’s funding in 2002 of Ngā Taumatua, the programme for specialist resource teachers of literacy, Māori. This development would appear to be crucial and is an important start (albeit a belated one) to addressing the consistent need identified by teachers in Māori-medium programmes for such professional development; and

- the ongoing commitment and dedication of Māori-medium teachers who continue to strive toward improving curriculum delivery and raising Māori achievement in the face of extreme demands, often overwhelming expectations, and limited resources.

However, Rau also points out that the results may have been better still had it not been for a number of factors which have made the tasks of the Māori-medium teacher even more difficult. These include, in particular:

- the high number of ‘linguistically challenging’ curriculum documents in Māori that have been developed within a relatively short period;

- the high mobility of teachers;

- an increased demand for Māori-medium teachers due to a rapid increase in the number of schools offering Māori-medium programmes;

- increasing demands for professional development in Māori-medium-specific literacy, which drains teacher supply; and

- the still piecemeal nature of teacher professional development provision.


In another recent research study, also pertaining to student achievement and assessment in Māori-medium education, Berryman, Walker, Reweti, O’Brien and McDonald (2002) outline the development of a language assessment resource called Kia Puta ai te Reo. The study also discusses some preliminary findings from some Māori-medium programme trials of the resource.

Kia Puta ai te Reo consists of a combination of four programmes and assessment tools that are designed to assist students with different levels of language ability to improve their te reo skills in Māori-medium education settings.

The programmes are:

- Tukuna Kia Rere. This programme is for students who need to strengthen and enrich their Māori language base. It is based on an English oral language programme called the ‘One Hand Approach’, developed by Annette Stock, and helps students build and link language by using a hierarchical model of word and meaning associations.
• Hopungia. This programme is for students who have learned to communicate in English but who need to develop Māori language skills in order to succeed in Māori language learning contexts. Hopungia consists of a range of interactive activities such as barrier games and collaborative stories, which are designed to broaden student understandings of Māori language and fluency.

• Mihi and Tata. These two programmes are designed to assist students who experience communication difficulties. Mihi is a programme designed to help parents of students with hearing difficulties. Tata works at developing vocabulary and the development of letter sound knowledge associated with the initial sounds of words.

Table 2 highlights the levels of the students’ language ability in te reo Māori and the corresponding programmes that are designated to match that language ability level.

<table>
<thead>
<tr>
<th>Level</th>
<th>Language ability of student</th>
<th>Corresponding programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 4</td>
<td>Preschoolers who communicated in mainly poor English or Māori structures and vocabulary</td>
<td>Tata, Mihi</td>
</tr>
<tr>
<td>Level 3</td>
<td>Preschoolers who communicated only in English</td>
<td>Hopungia</td>
</tr>
<tr>
<td>Level 2</td>
<td>Preschoolers who communicated mainly in English but with some Māori</td>
<td>Tukuna Kia Rere</td>
</tr>
<tr>
<td>Level 1</td>
<td>Preschoolers who communicated mainly in Māori</td>
<td>Standard Māori-medium school assessments</td>
</tr>
</tbody>
</table>

Each type of programme caters for the needs of each particular group of students. Given their greater level of linguistic proficiency, however, Level 1 students use the standard Māori-medium assessments, such as Aromatawai Urunga-ā-Kura, which are designed to ensure their ongoing extension in te reo Māori.

The preliminary results of the use of these programmes in the classroom are also now available. The Tata programme (testing the naming of objects and the initial sounds of selected vocabulary) has been successfully trialled in three sites. At each site there were increases in student performance over the period for both tests. The Hopungia programme has been trialled successfully at two sites, one a kura kaupapa Māori and the other a mainstream school (wishing to increase its Māori component to 50% immersion). In terms of these results, the authors state:

_The Hopungia programme was enjoyed by students and able to be implemented by tutors working within the classroom setting. Further, the Hopungia programme was able to increase individual oral language opportunities and improved student performance at each of these quite diverse sites._ (Berryman et al., 2002, p. 14)

The Tukuna Kia Rere programme is still being trialled. However, the authors conclude that the overall implementation of Kia Puta ai te Reo appears highly promising and argue that it is one means of overcoming the past and present practices of Māori having to implement assessment tools which have been developed by non-Māori, and without Māori ways of knowing and understanding being an integral part of it. Therefore, this set of programmes marks a change from this pattern, as it was developed with te reo Māori me ōna tikanga (Māori language and culture) as the central resource ‘from within the context of equitable power-sharing…and from the child’s own culture’ (Berryman et al., 2002).
Berryman and Glynn (2003)

Berryman and Glynn (2003) have also conducted a small-scale intervention study in one community primary school where Māori-medium students were experiencing difficulties in their English language skills after transferring to the local English-medium high school. In addressing this concern, Berryman and Glynn asked the following key questions which, for reasons that will be discussed in the following section on indicators of good practice, bear further and closer examination in the Aotearoa/New Zealand context:

1. What impact does transition to English have on the lives of the students and their whānau?
2. Are current transition practices to mainstream English-medium effective, or even adequate?
3. How have students benefited from these types of practices?
4. How can we do better? (Berryman & Glynn, 2003, p. 10)

Berryman and Glynn observed that, to date, most teachers in Māori-medium contexts have implemented one of three options when attempting to prepare their students for secondary school. They would typically either:

- do nothing to interfere with the ongoing Māori-medium education and wait until the student enters the English-medium context before dealing with any issues that might arise following transition;
- teach English transition once students reach a specific age group; or
- teach English transition to all students within a specific class.

None of these options above, Berryman and Glynn argue, is optimal, as they do not take into consideration the identified level of language proficiency of the individual student. All the options assume, they say, that the students share the ‘same level of preparedness’ (Berryman & Glynn, 2003, pp. 9–10). One might also add here that current approaches to transition to English-medium contexts do not appear to address systematically the specific requirements attendant upon the development of academic language proficiency in English (see also the discussion below on indicators of good practice).

To address these concerns, Berryman and Glynn (2003) developed and implemented a 10-week reading and writing transition programme in English for the students in this Māori-medium setting, in Term 4 of their final year, immediately prior to transferring to high school. Despite the relatively short time frame, the results appear to have been highly successful, with the preparedness of the students for academic instruction in English markedly increasing. Subsequently, this programme time has been extended, to further build on its effectiveness.

INDICATORS OF GOOD PRACTICE

In light of both the international and national research, this final section will extrapolate key indicators of good practice that have been consistently identified as being effective across a range of different bilingual programmes, and which accord with sound and attested research conclusions on bilingual education. These indicators of good practice will also be discussed in relation to their potential implications for the further development of Māori-medium education.

This approach to bilingual/immersion education is described by Cummins (2000b) as one of research–policy–practice. Such an approach requires first highlighting key theoretical principles or hypotheses in the research literature that have been identified as contributing to effective bilingual/immersion policy and practice and then judging or measuring these principles in relation to their congruence with available empirical research data. The process of linking research-
based theory and evidence to policy and practice thus provides us with an extremely ‘robust’ basis for ascertaining effective policy implementation for bilingual/immersion education, while also accounting for and/or directly addressing the diversity of approaches, programmes and contextual factors in bilingual/immersion education. In other words, for a theoretical principle or hypothesis to be robust it has to accord with all available research data, or at least be able to account for inconsistencies in the research data – for example, through poor implementation of an otherwise positively attested bilingual education programme. Consequently, such an approach provides an extremely strong basis for effectively ascertaining generalisable indicators of good policy and practice that can then be applied specifically to bilingual/immersion education in Aotearoa/New Zealand.

Extrapolating indicators of good practice on the basis of this research–policy–practice approach will also provide the best means of developing wider informed educational policy for bilingual/immersion education in Aotearoa/New Zealand. Given the complexities of the field, the still widely held misconceptions about both bilingualism and bilingual education, and the relative infancy of bilingual/immersion school-based programmes in Aotearoa/New Zealand, the need for robust research-led indicators in this respect is made even more pressing. The wider position(ing) of ethnolinguistic minorities within English-dominant contexts such as Aotearoa/New Zealand, along with their associated relative disadvantage, highlights the further need for these indicators to account for not only classroom-based indicators, but also the ongoing influence of the wider social and political context. As Cummins (2000b) states:

Theory addresses educational practice not only in the narrow sense of what happens in the classroom but also in terms of how classroom interaction is influenced by societal discourses that surround educational practices. Theory can challenge inappropriate or coercive policies, practices and associated discourses by pointing both to inconsistencies with empirical data and also to internal logical contradictions within these discourses. It can propose alternative understandings of phenomena and chart directions for change. (Cummins, 2000b, p. 3)

Programme Approach

The international research literature on bilingual/immersion is unequivocal about the following key issues with respect to programme approach.

1. Additive bilingual programmes are the most effective bilingual education programmes, in terms of fostering bilingualism, biliteracy and student achievement. This is because such programmes provide for the development of a sufficient bilingual threshold in students for the cognitive and educational advantages associated with bilingualism to ensue. The interdependence principle also allows for the successful transfer of literacy skills in one language to another, thus also achieving biliteracy.

2. Maintenance and enrichment bilingual programmes, most often associated with L1 minority and L2 majority students respectively, are the most effective programme models, with students being able to achieve age-appropriate academic bilingualism and biliteracy by the end of schooling.

3. Longer-term bilingual programmes are significantly more effective than shorter term programmes because they allow for the second language learning delay that attends the acquisition of academic language proficiency in an L2.

4. Total immersion is not a prerequisite for the achievement of high-level fluency in the target language, but higher levels of immersion do tend to result in higher levels of fluency among students. If increasing the number of fluent speakers in a language that is currently endangered is particularly important (as is the case with te reo Māori), higher levels of immersion will be most effective in achieving this.
Implications for Aotearoa/New Zealand

Given that Māori-medium education is identified as an additive heritage (or enrichment) model of bilingual education, its development must be further encouraged and resourced, in line with more specific pedagogical indicators of good practice, discussed below.

Language

A key feature of any bilingual programme is the relationship between the students’ language(s) and those of the programme. In particular, is the language of instruction the students’ L1 or L2? Do all the students have the same language base (L1 or L2), or is the student language base mixed (a combination of both L1 and L2 speakers)? When these questions are asked, it immediately becomes apparent that most students currently in Māori-medium education can be designated as L1 speakers of English and L2 speakers of Māori. This student language base most closely accords then with enrichment bilingual/immersion programmes such as French immersion in Canada (although the wider social context in relation to language status and use differ).

Specific pedagogical issues that arise in relation to teaching a minority L2 language include the following:

1. The target (L2) language must be used extensively as the language of instruction (that is, teaching curriculum content through the language). Its use as simply an organisational language is not sufficient for the cognitive and educational advantages of bilingualism to ensue (although the use of language for organisational purposes may contribute to the development of cultural knowledge).

2. Teachers must be fluent speakers, readers and writers in both languages. This is a sine qua non of bilingual programmes around the world. If teachers are not fluent in both languages, they will not be able to teach students the academic language proficiencies required for long-term academic success.6

3. Teaching a minority target language as L2 requires recognition of the second language learning delay inevitably experienced by L2 learners in the acquisition of academic language proficiency in that language (as opposed to conversational language proficiency which is more quickly acquired) and, therefore, a wider understanding of issues concerning second language acquisition.

4. This, in turn, requires not only teaching in the L2 (crucial though this is), but also the ability to teach the L2 itself (i.e. to specifically teach the features of academic language in the L2). The latter allows bilingual students to build more specifically upon the metalinguistic advantages associated with additive bilingualism6 and requires specialist training in second language acquisition and learning.

5. There is also a need to teach the academic language characteristics of the L1 in order to ensure that the literacy skills acquired in the target language are able to be fully transferable.

6. Separating languages of instruction with respect to particular learning/instructional episodes is consistently deemed to be more effective than intermixing them (Dulay & Burt, 1978). Language mixing is not harmful – codeswitching is, after all, a key feature of bilingual language use. However, it does appear that strict separation of languages, or sustained periods of monolingual instruction, is the most effective pedagogical means of promoting bilingual language development. This is because separating languages of instruction allows for the establishment of language

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1 Of course, second language speakers of a language can also be fluent speakers and able to teach the higher cognitive/linguistic skills required of academic language proficiency.

2 Metalinguistic awareness relates to the often-enhanced ability of bilingual students to analyse language forms – that is, how different languages are (differentially) structured. This ability can also be demonstrated at various levels: phonological awareness (the understanding of sound units), word awareness, and syntactic awareness. For an extended discussion, see May, Hill, and Tiakiwai (2003; Part 1).
boundaries, and this in turn facilitates language learning and the development of metalinguistic awareness in students (Cloud et al., 2000; Baker, 2001; Lindholm-Leary, 2001).

**Implications for Aotearoa/New Zealand**

While the expansion of Māori-medium programmes, particularly within mainstream school contexts, has been significant in recent years, there is a high likelihood that many of these programmes are not teaching sufficiently through te reo Māori as the target language (see also the discussion of immersion levels below). The degree to which te reo Māori is a significant instructional language in many of these contexts remains open to serious question, certainly in those with lower levels of immersion. This is of particular concern, given that instructional content in the target language is central to additive bilingualism and the cognitive and educational advantages of bilingualism. Jacques’ (1991) research is indicative of these concerns here, particularly with respect to low-level immersion bilingual units in mainstream Aotearoa/New Zealand schools.

While L2 speakers can also be fluent speakers, the L2 language background of many of the teachers in these programmes, along with their students, is also of considerable concern, since language fluency is a central prerequisite for successful bilingual programmes. Good models of the language are essential, particularly when the target language is an L2 for students, if students are to have cognitively stimulating instruction modelled to them (Lindholm-Leary, 2001).

Pasifika bilingual education is actually potentially far better placed here, given that many Pasifika students and adults still speak a Pasifika L1 language. However, the language shift and loss already experienced by Māori makes the Māori-medium context considerably more challenging. Given the significant and ongoing dearth of fluent Māori-speaking teachers/kaiako, serious and urgent consideration needs to be given to developing preservice and inservice programmes that combine the specific development of Māori language proficiency with the specific requirements of teaching in bilingual/immersion contexts (see also below).

Consistent use of other fluent speakers in the classroom should also be encouraged wherever possible, perhaps via the reinstatement of kaiaraha reo (language assistants). This team teaching approach is widely evident in good models of bilingual education (Cloud et al., 2000; Lindholm-Leary, 2001), as well as in English second language education (Bourne, 2001). It would also be particularly useful where the teacher’s language fluency is in need of further development, allowing the teacher, as well as the students, access to fluent models of te reo Māori. Again, however, it would be important to ensure that Māori was consistently used as an instructional language in the classroom. Such an approach would also clearly require a commitment to significant additional funding.

The second language learning delay with respect to the acquisition of academic language proficiency in an L2, allied with wider indicators of the most effective programme types, indicates unequivocally that students need to remain in bilingual/immersion programmes for a minimum of six years, ideally eight years. Shorter programmes do not allow for the full development of literacy in the target language – particularly when it is an L2, as it will be for the majority of Māori-medium students – and should thus be actively discouraged.

The particular concern that this raises for Aotearoa/New Zealand relates to the misplaced assumption among many parents and whānau that two or three years of kōhanga, where some conversational Māori has been acquired, is ‘sufficient’, and that students’ English language learning needs are then best served by transferring to English-medium contexts. Similarly, many parents of kura students withdraw their children after only one or two years for, one suspects, much the same reason – the (misplaced) assumption that ‘too much’ Māori may undermine English language proficiency.7

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7 These trends are supported by Ministry of Education data. In 2000, for example, over 30% of Māori children were enrolled in kōhanga reo at Level 1 immersion (81–100%), but only 7.5% of Māori children subsequently moved on to the same level of Māori immersion education at the primary school level. Out of the remaining three levels of Māori medium education, 2.5% were involved in Level 2 (50–80% immersion) and 3.7% in Level 3 (30–50% immersion) (Ministry of Education, 2002).
Parental decisions such as these not only waste the already overstretched resources of kura, which have invested considerable time educating these children, but are, ironically, the least effective means of achieving parental aims. The students concerned will almost certainly have had insufficient time in Māori-medium contexts to have acquired literacy in te reo Māori to age appropriate level, given that the second language learning delay inevitably sees such students at lower than equivalent grade level in the L2 in the initial years of instruction, before then beginning to catch up. This feature was recognised by the NEMP studies discussed earlier.

As such, these students will, possibly, have conversational competence in te reo Māori, but not academic language proficiency in it. The students will also therefore not be at a sufficient bilingual threshold to be able to transfer literacy skills effectively from one language to the other, the principal advantage of additive bilingual education. As Baker (2001, p. 210) asserts, ‘classroom teaching transfers relatively easily between languages [but only] when such languages are sufficiently developed to cope with concepts, content and curriculum materials’.

In short, students who arrive in English-medium school contexts without a sufficient literacy basis in te reo Māori are highly likely to struggle with academic English and learning more generally. They will be having to start again in a new language-learning context and, given their prior involvement in Māori-medium education, will also be behind their chronologically aged peers in relation to age-related learning activities in English. English-medium schools may, in turn, view these students and their Māori-medium experience from a deficit perspective, a pattern that Flores, Cousin and Diaz (1991) have identified in the USA context, further contributing to the potential difficulties experienced by such students in English-medium contexts.

Consequently, exiting Māori-medium education too early is likely to contribute to and/or confirm eventual educational failure for Māori students, rather than ameliorate it.

A similar, but more easily managed consideration has to do with the transition to English-medium secondary education for Māori-medium students. Again, this relates to the issue of academic language proficiency – albeit, this time in English. The early predominant view of many kura kaupapa Māori was that total immersion in Māori could be pursued because many of the students were L1 English speakers anyway, because of the pervasiveness of English elsewhere, and because of the related assumption that students would ‘naturally’ acquire the English necessary for instruction in English-medium instruction. These views were also influenced at the time by the predominance in second language teaching circles of natural approaches to language learning. Terrell’s ‘natural approach’ (see Richards & Rodgers, 1986), for example, espoused language programmes that imitated as closely as possible the process of learning the first language as the best means of achieving bilingualism (Lindholm-Leary, 2001).

However, academic language proficiency in any language, even one’s L1, never automatically occurs. The particular and additional complexities of classroom-based academic discourse – including its more decontextualised nature, its more complex grammar, and its subject specific vocabulary (see Cummins, 2000a, 2000b; May, 2002) – have to be specifically taught.

The recent research by Berryman and Glynn (2003) is therefore extremely important in this regard. It highlights that students who move from a primary school Māori-medium context to a secondary school English-medium context, without any formal instruction in academic English, may also experience issues of transition to a different language context, and may be similarly constructed in deficit terms by their new schools. However, unlike those who leave Māori-medium contexts too early, these students have the considerable advantage of being able to transfer the literacy skills acquired in te reo Māori to the task of learning academic English. And, as Berryman and Glynn demonstrate, this process can also be managed relatively straightforwardly.

However, it does require Māori-medium contexts to directly address academic English at some point prior to the end of their programme, something that many kura remain reluctant to do. It is this ongoing pattern of resistance to the
teaching of English in full-immersion Māori-medium contexts that has led Cummins, a prominent long-standing academic advocate of, and international authority in, bilingual education to observe specifically of Māori-medium education:

The rationale is that the minority language (Māori) needs maximum reinforcement and transfer of academic skills to English will happen ‘automatically’ without formal instruction. Although there may be instances where this does happen, in my view, this assumption is seriously flawed. ‘Automatic’ transfer of academic skills across languages will not happen unless students are given opportunities to read and write extensively in English in addition to the minority language. (Cummins 2000b, p. 194)

Cummins emphasises the importance of formal explicit instruction in order to teach specific aspects of academic registers in both languages and the utilisation of both languages to promote students’ awareness of language and how it works (e.g. focusing on similarities and differences between the two languages). He proceeds to argue that if one of the two languages is ignored instructionally, with the expectation that it will ‘take care of itself’, students may experience significant gaps in their knowledge of, and access to, academic registers in that language, particularly in areas related to writing. Furthermore, if one language is completely excluded, students are given much less opportunity and encouragement to engage in the ‘incipient contrastive linguistics’ that Lambert (1984) reported was such a successful feature of French immersion programmes. This kind of enriching metalinguistic activity is much more likely to occur and exert positive effects if it is actively promoted by instruction.

There is far less consensus in the wider research literature, however, on the best timing for, and method of, such instruction in English – although usually bilingual/immersion programmes have introduced instruction in both languages by Year 4 (Baker, 2001). This level of variation is also reflected in the wide variety of approaches currently adopted by Māori-medium programmes to the introduction of English instruction. Some Māori-medium programmes, for instance, begin English language instruction in the third year of the student’s education for one or two hours each week, while others may leave English until Years 7 and 8, as was the case with Berryman and Glynn’s intervention study.

Similarly, as we have seen, the wider research literature recommends that a key principle of effective teaching in bilingual/immersion programmes is to separate languages of instruction with respect to particular learning episodes (Cloud et al., 2000; Baker, 2001; Lindholm-Leary, 2001). However, how this separation is achieved may vary widely. Bilingual programmes may use different languages on alternate days, use one language in the morning, another in the afternoon, alternate languages by subject (ensuring, where possible, that language use does not become subject-specific; that is, that both languages are used in all curricular areas) and/or demarcate language use by space (English may be spoken only in some rooms, for example).

All these strategies are currently used, to varying degrees, by Māori-medium programmes. This suggests that, with the provisos that some formal English language instruction should occur before the end of the programme, and this instruction should directly address academic English language literacy skills, Māori-medium programmes may continue to develop and manage the teaching of English language instruction as they best see fit. Managing such instruction, via methods of separation deemed most appropriate in particular Māori-medium contexts, should also alleviate concerns about the potential encroachment of English into other language and/or school domains.

Finally, how effectively teachers understand and address the complex issues that attend teaching in an L2 as an instructional language, and the teaching of academic literacy in both an L1 and L2, is pivotal to the success or otherwise of bilingual/immersion programmes. Specifically, teaching in a bilingual programme requires specialist training in immersion pedagogy, curriculum, materials and resources, and L2 or target language assessment. This must include preservice and ongoing inservice in:
• bilingual theory and research;
• the bilingual programme model the school uses;
• second language acquisition and development;
• instructional strategies in second language development;
• bicultural, multicultural, and educational equity training; and
• cooperative learning strategies (see Cloud et al., 2000; Day & Shapson, 1996; Met & Lorenz, 1997; Skutnabb-Kangas & García, 1995 for further discussion).

Not only do teachers need to be skilled practitioners, an important element is also their ability to reflect critically upon their instruction and the curriculum. According to Cloud et al., (2000), effective instruction occurs when teaching is modified in response to the results of formal and informal assessment of student progress, to feedback from students during activities, and to teachers’ observations of the appropriateness of curriculum materials and activities. In order to be able to do this competently, particularly in an L2 minority language context, teachers must have a repertoire of appropriate and effective assessment techniques that they are able to use to obtain regular feedback about the effectiveness of their teaching and the learning of the students. Current research in Aotearoa/New Zealand, particularly Hollings et al. (1992) and the Education Review Office (2002), suggests that this repertoire among Māori-medium teachers is still in need of further support and development.

Teachers must also be sufficiently familiar with second language acquisition, and its implications, to be able to employ appropriate scaffolding approaches that move students from the more context embedded/cognitively undemanding contexts characteristic of conversational language proficiency to the more context-reduced/cognitively demanding aspects of academic or classroom-based language (see Cummins 2000a, 2000b; May, 2002).

Finally, teachers need to be well versed in appropriate assessment strategies, as well as being aware of the limitations of particular assessment measures in different language contexts. This last issue has also been consistently highlighted in Aotearoa/New Zealand research with respect to the (in)appropriateness of adopting, or even adapting, some English language assessment measures to Māori-medium contexts (see Berryman et al., 2002; Rau, 2003).

In this light, current levels of professional development for bilingual/immersion teachers in Aotearoa/New Zealand remain palpably inadequate. Preservice teacher training is of particular concern here since, given the constraints of a three-year Bachelor of Teaching, almost no meaningful instruction can be provided – even for general teachers – in second language acquisition and/or bilingual education. Even generalist teachers would benefit immensely from such instruction, since mainstream Aotearoa/New Zealand classrooms have an increasing number and range of bilingual students within them and most teachers remain demonstrably ill-equipped to teach them.

Inservice professional development is better served but still strikingly limited and disparate. The recent funding and development of the inservice programme Ngā Taumatua (resource teachers of literacy, Māori) is a significant advance here. However, be that as it may, both preservice and inservice provision in Māori-medium education need to be significantly extended, and resourced nationally as part of a coordinated policy approach to bilingual/immersion education. Such teacher education programmes need to be developed further in relation to already existing specialist rumaki/immersion programmes and, crucially, in conjunction with the further development of, and training in, appropriate Māori language assessment resources. They also need to address effectively the ongoing concerns about the initial, often highly varied, Māori language proficiency or competency of teacher trainee applicants, not to mention teachers.
One possible model that might address all these concerns is a four or five year specialist teacher training programme offered by one or two designated providers that involved at least one year of full-time Māori language study (preferably via immersion) for all non-fluent Māori speakers at the start of the programme, followed by a three or four-year specialist teacher training in bilingual/immersion education. Given the longer training period required, such a programme would need to be funded by scholarships and, ideally, should bond students to teach in bilingual/immersion contexts on completion of the programme. Current inservice education should also continue to be extended along similar lines, wherever possible.

Limiting specialist bilingual/immersion programmes to one or two providers would also effectively concentrate scarce resources and expertise. Such providers would need to demonstrate strong Māori language programmes, as well as expertise in bilingual/immersion education – at the very least at undergraduate level, and preferably at graduate level as well. The importance of teacher education and teaching continuing to be informed by a strong research evidence base is crucial to the long-term effectiveness of such programmes.

**Level of Immersion**

The wider research literature highlights a number of key issues with respect to level of immersion:

1. Higher levels of immersion result generally in higher levels of language proficiency in the target language, particularly if the target language is an L2 for students (see, for example, Campbell, Gray, Rhodes, & Snow, 1985; Genesee, 1987).

2. Levels of immersion may vary but the most effective additive bilingual/immersion programmes in the literature range from 50% to 90% immersion in the target language, with 90–10 and 50–50 being the most common. The 90–10 programmes often move from an initial 90% in the target language to 50–50 over a period of four to six years.

3. The minimum requirement for effective additive bilingual education is 50% in the target language. Programmes with less than 50% have consistently been found to be less effective in establishing bilingualism and biliteracy for students. They may have other benefits – such as fostering cultural support and culturally appropriate pedagogy – but they cannot be regarded as effective bilingual programmes.

**Implications for Aotearoa/New Zealand**

Māori bilingual programmes are currently funded at four levels of immersion:

- Level 1: 81–100%
- Level 2: 51–80%
- Level 3: 30–50%
- Level 4: 12–30%

Level 1 programmes equate with ‘full immersion’, Level 2 programmes equate with effective ‘partial immersion’ programmes, Level 3 with ineffective partial immersion programmes (less than 50%), and Level 4 with foreign language teaching programmes.

Funding for these programmes also varies accordingly, as Table 3 indicates. This budget differential provides additional resources for schools on the basis of the added costs involved in staffing and resourcing bilingual/immersion
programmes. Higher levels of immersion involve more cost, in terms of staffing, resources and wider infrastructural support, and therefore gain greater funding.

Given the particular history of Māori-medium education, and its symbiotic relationship with the kōhanga reo movement from which it emerged, Level 1 immersion programmes are most often (but not exclusively) associated with kura kaupapa Māori. These schools have also been the ones most often associated with the success of Māori-medium education, both nationally and internationally.

Table 3: Ministry of Education Māori Language Factor Funding Allowances

<table>
<thead>
<tr>
<th>Immersion Level</th>
<th>Programme Delivery</th>
<th>$ per Māori student 2002</th>
<th>$ per Māori student 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>81-100% immersion</td>
<td>$886.69</td>
<td>$902.65</td>
</tr>
<tr>
<td>Level 2</td>
<td>51-80% immersion</td>
<td>$443.34</td>
<td>$451.32</td>
</tr>
<tr>
<td>Level 3</td>
<td>30-50% immersion</td>
<td>$221.67</td>
<td>$225.66</td>
</tr>
<tr>
<td>Level 4</td>
<td>Less than 30% but at least 3 hours per week</td>
<td>$53.81</td>
<td>$54.78</td>
</tr>
</tbody>
</table>


The widespread adoption of a full-immersion approach among kura emerged out of a specific commitment to additive bilingualism, an associated awareness of the limitations of transitional bilingual education, a wider social and political commitment to reversing language shift and loss of te reo Māori, and a related reassertion of tino rangatiratanga (self-determination). This history of Māori-medium education is consequently reflected in the predominance of students in full-immersion Māori-medium programmes. In 2000, just over 11,000 Māori students were involved in Level 1 Māori immersion, while less than half this number of Māori students (5,117) were involved in Level 2 or Level 3 (5,480). Level 1 programmes accordingly are also predominantly separate whole-school programmes, while Level 2–4 programmes are predominantly associated with bilingual units within mainstream schools. This is also an important issue of resourcing, since the teachers who are most committed to Māori language revitalisation and/or are the most fluent speakers have also tended to teach in kura kaupapa contexts.

The international research literature on bilingual/immersion education clearly indicates that a high level of immersion is entirely appropriate for the wider goal of revitalising te reo Māori, and the more specific goal of fostering the highest levels of language proficiency possible among students in te reo Māori, if the school or programme have the appropriate staff and resources to accomplish this.

However, the international research literature also clearly highlights that effective additive bilingual programmes may also be partial immersion programmes, as long as the minimum level of instruction in the language is at least 50%, equating to Level 2 Māori-immersion. This has not been a view that has been widely held in Aotearoa/New Zealand up until now. Indeed, what seems to have transpired in Aotearoa/New Zealand is a widespread view that only full immersion programmes (Level 1) can be described as authentic additive bilingual programmes – hence, the regular distinction in Aotearoa/New Zealand still made between immersion and ‘other bilingual’ programmes. Consequently, all partial forms of immersion (Levels 2–4), including the burgeoning number of bilingual units within mainstream school contexts, have tended to be viewed far less favourably – often being simply equated or elided with subtractive and/or transitional programmes.

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8 This is not meant to imply that teachers in mainstream bilingual units are less committed to these principles. It simply reflects the fact that the limited pool of fluent Māori teachers, or those who are relatively fluent, have, not surprisingly, tended to be found and/or encouraged into full-immersion contexts, where their combined language and teaching skills are most needed.

9 As discussed earlier in the section on language, the only proviso is that some form of specific academic English language instruction should occur before the end of the programme.
It is equally clear from the international research literature, however, that many partial immersion programmes are ineffective. These programmes are almost always those that have less than 50% instruction in the target language and/or do not teach the target language sufficiently as a language of instruction – that is, the equivalent of Level 3 and Level 4 Māori-immersion in the Aotearoa/New Zealand context. Consequently, the basis of differentiation among Māori-medium programmes needs urgently to be reconsidered.

Rather than differentiating between Level 1 full immersion programmes and all other partial immersion programmes, as is currently the case, the differentiation should be clearly between programmes at Levels 1–2 and Levels 3–4. Thus, partial immersion programmes that exceed 50% – that is, Level 2 programmes – should continue to be specifically fostered in Aotearoa/New Zealand along with Level 1 full immersion programmes. Level 1 programmes that move to more equivalent levels of instruction in Māori and English over time (e.g. 90/10 to 50/50 over six years), as is common in bilingual programmes internationally, should also not be penalised financially. For example, if the minimum level of immersion in Māori is maintained above 80% for the first two or three years, these programmes should still be regarded as Level 1 programmes.

Meanwhile Level 3 and Level 4 programmes should be encouraged to meet these higher immersion levels if possible, perhaps within a specified period of time. If they cannot – and one might expect this to be the case for the majority of current Level 4 programmes, and at least some of the Level 3 programmes – these programmes should be redesignated as Māori language support programmes, rather than as bilingual or Māori-medium programmes, and funded under a different basis (see also below).

The redesignation of Level 3 and Level 4 programmes is particularly important for any meaningful ongoing national evaluation of Māori-medium programmes, since only Level 1 and Level 2 programmes are regarded as being comparable to effective additive bilingual education programmes elsewhere, as identified consistently by the research literature.

Such redesignation would also avoid the confusion that has characterised the debates on the effectiveness of bilingual education in the USA, where the less effective results from programmes with less than 50% instruction – the majority of USA programmes, in fact – were included alongside the significantly and consistently more effective results from maintenance and enrichment programmes with more than 50% instruction. Consequently, undifferentiated national results on the effectiveness of ‘bilingual education’ in the USA were inevitably diminished overall. This has allowed the anti-bilingual campaign in the USA to continue to fuel public misunderstandings about bilingualism and bilingual education, a development that has actually led subsequently to the disestablishment of many of the most effective bilingual programmes.

The importance of differentiating between Levels 1–2 and Levels 3–4 also has potentially significant implications for current Māori language factor funding arrangements. At present, there is a significant gap between Level 1 and Level 2 funding (see Table 3). Given that the equivalent of Level 2 programmes are regarded as providing the basis for effective bilingual programmes, a shift in emphasis to supporting both Level 1 and Level 2 programmes should necessarily involve further funding support for Level 2. By implication, less funding – or, more appropriately, a different basis of funding – for current Level 3 and Level 4 programmes should be considered. Alternatively, Level 4 funding could be eliminated, given that this low level of immersion clearly means that these programmes cannot be considered to be bilingual (although, of course, they are likely to be bicultural). Level 3 programmes should also be provided with incentives to achieve Level 2, perhaps within a designated, time-limited period.

If funding were to be eventually concentrated and/or consolidated at Levels 1–2, this would also address a related concern with the current proliferation of Māori-medium programmes across the sector, many of which are at levels of immersion that are not considered to be effective. In other words, the further development of Māori-medium education should concentrate on quality or depth, not coverage or breadth – consolidating focus and resources on those programmes that have been identified as the most effective in achieving bilingualism and biliteracy for their
students. This would also make best use of the limited staffing and resources currently available to Māori-medium education (although the latter should be extended wherever possible, in light of the earlier recommendations in this section). In all instances, however, schools, parents and the wider whānau would need to be advised accurately on the significant benefits of higher levels of immersion, not least because of the ongoing misconceptions among many that ‘too much’ concentration on the target language will detrimentally affect the acquisition of English.

This requires, in turn, a wider educational campaign aimed at highlighting the benefits of bilingualism and bilingual education, and addressing the many myths and misconceptions surrounding them.

This approach to the further consolidation of bilingual/immersion education in Aotearoa/New Zealand – concentrating funding and support on programmes that exhibit clear indicators of good practice – also highlights the relevance and importance of school or programme profiling. That is, programmes could be evaluated or assessed in relation to the degree to which they have incorporated and/or are cognisant of key indicators of good practice in bilingual/immersion education. This would address another pressing current concern; that is, the ad hoc development of many bilingual units in mainstream schools, often with little knowledge of, or consistency in, appropriate pedagogical approaches, particularly with respect to teaching a target language such as te reo Māori as an L2.

This is not to suggest in any way that such programmes have been developed in a deliberately cavalier fashion. Rather, their development has most often been as a result of whānau, community and/or school-based initiatives. However, as this paper makes clear, such initiatives may prove to be counter-productive if they are not carefully developed and resourced in relation to good practices identified in the wider research literature, and in relation to bilingual programmes that have been identified as effective.

School Context

Finally, consideration also needs to be given to the particular school context in which bilingual/immersion programmes are situated. As has already been indicated, the majority of Level 1 or full-immersion programmes in Aotearoa/New Zealand are kura kaupapa Māori – that is, separate whole-school te reo Māori programmes. As Table 4 indicates, however, there are also a considerable number of other whole-school Māori-medium programmes, at varying different levels of immersion – 154 in total. In addition, there are 276 schools that have bilingual units, or classes, within them – again, with widely different levels of immersion.

Table 4: Number of Kura Kaupapa Māori and Other Māori-medium Schools

<table>
<thead>
<tr>
<th>Number of Schools</th>
<th>Year 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kura Kaupapa Māori</td>
<td>59</td>
</tr>
<tr>
<td>Other Immersion Schools</td>
<td>16</td>
</tr>
<tr>
<td>Bilingual Schools</td>
<td>79</td>
</tr>
<tr>
<td>Schools with Immersion Classes</td>
<td>104</td>
</tr>
<tr>
<td>Schools with Bilingual Classes</td>
<td>172</td>
</tr>
<tr>
<td>Total</td>
<td>430</td>
</tr>
</tbody>
</table>

Source: Ministry of Education (2002, p. 28)

Whole-school bilingual/immersion programmes have several advantages over other options. In terms of their environment, they have a greater ability to create an overall additive environment that is more conducive to learning the target language and attaining high academic levels in their subjects. The buying of resources for this type of school is less problematic also. When catering for a single language group, a single resource will have a broader utilisation by the students at the various levels of the school, so there will be less purchasing of similar resources in
two languages. The planning and coordination of programmes will also be less complex because they will all share their most essential characteristics and principles with one another.

In contrast, bilingual/immersion programmes within English-medium schools will experience a number of challenges not experienced by whole-school programmes. When the target language programme is situated within a context where the majority language dominates, any additive bilingual context fostered by the programme may be potentially undermined by a wider subtractive view of the target language, and of the programme itself. Consequently, it is crucial to establish an additive environment towards the target language, and the programme itself, throughout the whole school (Johnson & Swain, 1997). In this regard, Met and Lorenz (1997) make the point that effective bilingual programmes also place high emphasis on integrating all the students within the total school programme. This is demonstrated in the Aotearoa/New Zealand context by the success of such schools as Richmond Road Primary School, Clover Park Middle School and Finlayson Park Primary School (see May, 1994, 1995; McCaffery & Tuafuti, 1998; McCaffery et al., 2003).

The principal also has a particularly important role in a bilingual/immersion school as the person who is central to the planning and coordination of the programme, who cares for the welfare of the staff, and who can act as the spokesperson for the programme (August & Hakuta, 1997). If this support is lacking the programme may well collapse. In order to be able to support a bilingual/immersion programme effectively, however, the principal also has first to be committed to the bilingual programme, understand and support its underlying philosophy and particular programme approach, impart this understanding and support to the wider staff and school community, and be able to articulate and, where necessary, defend the programme in a wide variety of forums. This is particularly important if the programme’s aims are to be correctly understood and supported by the wider school and community, and in effectively addressing any related misconceptions about bilingual/immersion education. In the Aotearoa/New Zealand context, the influence of Jim Laughton, the principal responsible for establishing the internationally lauded bilingual/multicultural approach at Richmond Road School, demonstrates this clearly (see May, 1994, 1995; Corson, 2000).

Successful bilingual/immersion programmes are also those that enjoy a high amount of parental support and involvement. Indeed, bilingual programmes are often created because of parental pressure on educational authorities to establish such a programme. The initial establishment of kōhanga, and subsequently kura kaupapa Māori, demonstrate this clearly, as do many other Māori-medium programmes. This is also a characteristic of overseas programmes – the initial Canadian French immersion programmes, for example, and indigenous language education programmes more broadly (May, 1999; Cloud et al., 2000).

SUMMARY OF KEY PROGRAMME FACTORS

In light of the previous discussion, and on the basis of the international and national research canvassed throughout this paper, the following briefly summarises the key indicators of good practice in bilingual/immersion education programmes (see also Cloud et al., 2000; Lindholm-Leary, 2001).

Wider school environment

Indicators of good practice in the wider school environment include:

• an additive approach to bilingualism;

• effective and informed leadership at school level and appropriate administrative support;

• an active commitment to equality;

• positive teacher–student and student–student (L1/L2) relationships; and

• cooperative learning and teaching approaches.
Teachers

Teachers need to:

- have native or near-native fluency in both languages;
- understand the research and theory underpinning bilingual education generally, and their approach/model in particular;
- understand second language development (e.g. the distinction between conversational competence and academic literacy);
- have appropriate instructional strategies for L2 learners;
- receive professional development support in bilingual education and second language development;
- have access to appropriate language assessment resources, and consistent and regular training and support in them;
- have training in, awareness of and commitment to bicultural, multicultural and educational equity; and
- receive training in cooperative learning and teaching approaches.

Instructional design

The following factors are important.

- The duration of the bilingual/immersion programme needs to be at least six years at primary school level in order for students to reach a sufficient bilingual threshold level for the cognitive and educational benefits of bilingualism and biliteracy to ensue.

- A 50% minimum of target/minority language use as the language of instruction is essential.

- There needs to be a high use of the target/minority language, particularly in the early grades, as the higher the use, the more fluent students will eventually be in the target language. This is particularly important when the language is an L2, as is the case for many Māori-medium students.

- Literacy should begin in the target/minority language, although the timing of the subsequent introduction of the L1, and specific teaching of it, will vary.

- Students need to be introduced to the target language initially via context embedded/scaffolded approaches to teaching and learning.

- More cognitively extending/demanding language input also needs to be introduced over time in order to develop academic language proficiency in the L2.

- Some explicit language teaching instruction is required for both the target language and the students’ L1 in order to achieve academic language proficiency in both languages.

- Separation of languages of instruction for particular learning episodes is crucial.
Home–school relationships

Home–school relationships require:

- strong community support;
- strong parental involvement; and
- strong central educational agency resourcing and support.

Wider language education policy

The wider language education policy should ensure:

- a research-informed approach to bilingual/immersion education;
- a consistent approach to bilingual/immersion education across sectors, and in relation to different student/language groups. While the emphasis should continue to focus on Māori-medium education, a more coordinated approach could also encompass Pasifika and Asian language groups in the Aotearoa/New Zealand context who will likely benefit from instruction in their L1;
- significant additional funding for the development and extension of Māori language resources, particularly appropriate language assessment resources, to at least senior primary levels;
- additional funding for team teaching approaches in bilingual/immersion contexts, particularly where the teacher’s level of fluency in te reo Māori needs further extension and support;
- the establishment and funding of specialist preservice bilingual/immersion teacher education programmes which incorporate initial Māori language training, and additional teacher training in bilingual education methodology and second language development;
- further funding support for existing inservice teacher training in Māori language proficiency and specialist bilingual and second language teaching and learning;
- assessment of educational outcomes for students in bilingual/immersion contexts to be cognisant of, and appropriate to, such language learning contexts (e.g. NEMP). This is particularly important, given that language and literacy development for bilingual learners must always account for the second language learning delay in the early years of the programme. Effective bilingualism and biliteracy is achieved over time, not immediately;
- funding directed towards those programmes with features that research has highlighted are associated with the most effective bilingual/immersion programmes;
- the potential profiling of schools and programmes in relation to such indicators of good practice, as a means of ensuring the greatest possibility of success for such programmes. Funding allocation of bilingual/immersion programmes could be made dependent on the ‘readiness’ of schools to implement and sustain effective bilingual/immersion programmes;
- a wider information strategy to be developed and made available to all interested parties – teachers, students, parents, policy-makers and politicians – based on the best available research on the attributes of effective bilingual programmes and on the merits of bilingualism;
- any further development of bilingual/immersion education to be situated within a wider, coordinated, and consistent language education policy, including a critical reappraisal of the efficacy (or lack thereof) of existing English-
submersion educational approaches for minority language students and related ESL withdrawal support. Such a review of these latter programmes is long overdue; and

- further research evidence on effective bilingual/immersion practices to be gathered via ethnographic/case study research in schools that are already known to be exemplars of good practice. There are a number of schools in Aotearoa/New Zealand – in both kura and mainstream contexts – that have a long history of exemplary practices in bilingual/immersion education. Researching these practices would be highly informative and could be used to further guide the development of specific organisational and pedagogical practices within other bilingual/immersion programmes.

CONCLUSION

Up until now, both the national and international literature on Māori-medium education has consistently focused on its significant successes in acting as a crucial agent of change in the revitalisation of te reo Māori. Māori-medium education is regularly cited internationally as an exemplary school intervention in addressing, and redressing, the language shift and loss of an indigenous language. Moreover, other indigenous language education programmes, such as those in Hawaii for example, have often looked to Māori-medium education as a model of good practice in guiding the development of their own programmes and pedagogy (May, 1999).

These successes need to continue to be acknowledged, and celebrated – much has been accomplished in the 20 years since the advent of kōhanga reo and subsequent (re)development of Māori-medium education in Aotearoa/New Zealand; indeed, more than many might have hoped. However, Māori-medium education now faces new challenges. In particular, it needs to combine its longstanding focus on the wider language revitalisation of te reo Māori, which inevitably also focuses on speaking te reo Māori, with the goal of achieving high-level biliteracy for students in Māori-medium programmes, or command of the academic registers of both Māori and English.

The international literature on bilingualism and bilingual education consistently highlights that the most successful educational programmes, and the ones in which students are most likely to succeed educationally, are those that achieve bilingualism and biliteracy for their students. Such programmes are consistently additive in their approach to bilingualism, operate with at least a 50% minimum level of instruction in the target language, and have teachers who not only teach in, but also teach explicitly, the academic language registers of both languages. As the national research literature makes clear, these factors are clearly present in Māori-medium education, but currently still only to varying degrees.

The national literature also clearly highlights that if these characteristics of good practice are to become consistently evident in all programmes, then significantly more funding, research, pre- and inservice training, resource development, and professional development need to be made available urgently to those working, or wanting to work, in the Māori-medium sector. Given the significant successes accomplished by Māori-medium education thus far, often against great odds and with relatively few resources when compared with English-medium contexts, this does not seem too much to ask.

REFERENCES


The Role of Second Language Acquisition Theory and Practice in Pasifika Language Maintenance in New Zealand

Melenaita Taumoefolau, Donna Starks, Allan Bell and Karen Davis

Melenaita Taumoefolau and Donna Starks are senior lecturers at the University of Auckland, Allan Bell is Professor of Language and Communication at the Auckland University of Technology and Karen Davis is a lecturer at the Manukau Institute of Technology.
The Role of Second Language Acquisition Theory and Practice in Pasifika Language Maintenance in New Zealand

Melenaita Taumoefolau, Donna Starks, Allan Bell and Karen Davis

Abstract

This paper discusses how second language acquisition theory and practice can inform Pasifika language maintenance in communities and schools in New Zealand. The paper describes the Languages of Manukau study, a sociolinguistic study of the shift from Pasifika languages to English and Pasifika people’s beliefs about how their languages can be maintained. It then interprets this shift from the perspective of second language acquisition theories, and concludes with recommendations on ways to maintain Pasifika languages and avoid further shift to English.

INTRODUCTION

This article discusses how second language acquisition theory and practice can inform Pasifika language maintenance in communities as well as in schools in New Zealand. The field of Second Language Acquisition (SLA) can be defined as the study of the way in which people learn, inside or outside of a classroom, a language other than their mother tongue. Many of its important ideas are derived from the field that investigates first language acquisition – Child Language Acquisition (CLA), which began to develop in the late 19th century. A major interest in SLA is research into the human capacity to ‘acquire’ or pick up a second language in the same way children acquire their first language. We contend that language ‘shift’ is caused by (largely unintentional) ‘acquisition’ of a dominant language because necessary and sufficient conditions for the ‘acquisition’ of that language are satisfied. Our paper attempts to build a bridge between SLA and the sociolinguistic field that investigates language shift, death and maintenance by explaining language shift and language maintenance in terms of principles of second language acquisition.

There are two parts to the paper. The first briefly describes our sociolinguistic study called the Languages of Manukau Project and presents selected findings on the current shift from Pasifika languages to English and Pasifika people’s beliefs about how their languages can be maintained. The second part will use perspectives from SLA to interpret this shift and inform Pasifika people’s language maintenance. Finally, we end with recommendations on ways of maintaining Pasifika languages successfully and avoiding further shift to English.

LANGUAGES OF MANUKAU PROJECT

Sample Structure and Methodology

According to the 2001 New Zealand Census, Manukau City has the largest count of people of Pacific ethnicity. One out of every three Samoans, Tongans, Cook Islands Māori and Niueans in New Zealand live in the Manukau region (2001 New Zealand Census, Snapshot 6). The findings discussed below are part of a Marsden-funded study which aimed to investigate language proficiency, language use, language attitudes and language maintenance in the four largest Pasifika communities in Manukau: Samoan, Cook Islands Māori, the Tongan and the Niuean communities. This part of our paper discusses the methodology employed in the design of the project and presents selected findings from the project which relate to language proficiency.
The study consisted of interviews with 120 individuals, 30 per community. The selection criteria were as follows. The respondents needed to:

- be residents of specific regions within the Manukau (Manurewa, Papatoetoe, Mangere, and Otara);
- have lived in the Manukau region for five years or longer, or in the case of recent immigrants, to have lived in Manukau for at least two years with the intention of staying; and
- identify with the particular ethnic group. For example, if they were Niuean, they needed to identify as at least part-Niuean.

Respondents were chosen on the basis of the social networks of the advisers and elders in the project. The interviewers’ personal friends and close family were excluded because of the effect this might have on the answers provided although the interviewers did supply names of potential interviewees outside of their personal circle of friends.

The sample was divided equally on the basis of gender and age, as illustrated in Table 1. The three age groups are discontinuous so that discrete age breaks could be identified. The younger were aged 15–25, the middle-aged 40–51, and the older-aged 64 plus. Younger speakers under the age of 15 were excluded because we felt they may not be able to answer a 27-page questionnaire.

The number of New Zealand-born and island-born was selected on the basis of the proportion of island- and New Zealand-born in the 1996 New Zealand census. In practice this meant that a greater number of our younger sample were New Zealand-born and a greater number of our middle-aged and older respondents were island-born. We also attempted to get the most varied sample that we could. This meant ensuring that the sample was varied in terms of education, interest in the language, and activity in the community.

Table 1: Sample Structure

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Middle-aged</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Older</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

Between May 2001 and April 2002, respondents were interviewed in their home by a bilingual interviewer in the language of the interviewee’s choice. The interview schedule was devised using a 27-page questionnaire, which included both open and closed questions. Most interviews took approximately 1 to 1½ hours to complete. Seventy-eight interviews were recorded in the community language, 41 were in English, and one was mixed English and Tongan.

Selected Findings

Three findings from this study provide a useful assessment of the language ability of the South Auckland community: first language learnt, proficiency in the community language, and proficiency in English. First language was investigated in a variety of ways which included an assessment of caregiver’s language ability, languages spoken at home when growing up, and the first language spoken by the respondent. The latter question is examined in this paper. Proficiency is measured in terms of reported language ability as registered on a five-point scale. The present paper discusses speaking ability in the community language and English. Similar trends are observed for the listening, reading, and writing skills. Community language is a cover term here that refers to the traditional home language of the Samoan, Tongan, Cook Islands and Niuean communities.
First language and proficiency

All of our older respondents in the Languages of Manukau project report their first language as their community language (CL); however in all four communities a trend towards English as a first language can be observed across the age groups (see Table 2). In the Niuean and Cook Islands Māori communities, the shift from the CL as the first language to English as the first language was judged to be at a level of statistical significance. This age-grading may be a sign of future language attrition.

Table 2: Community Language (CL) as First Language by Age Group

<table>
<thead>
<tr>
<th>Language</th>
<th>CL</th>
<th>Middle</th>
<th>Young</th>
<th>Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongan</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>.213</td>
</tr>
<tr>
<td>Samoan</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>.082</td>
</tr>
<tr>
<td>Niuean</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>.029</td>
</tr>
<tr>
<td>Cook Islands Māori</td>
<td>10</td>
<td>10</td>
<td>3</td>
<td>.000</td>
</tr>
</tbody>
</table>

Shading indicates significant age-grading

Community language ability

The Languages of Manukau questionnaire asked respondents to rate their ability in the four skills (speaking, listening, reading and writing) on a five-point scale from ‘everything’ to ‘not at all’ in their community language and in English. The numbers in each cell in Table 3 presents those respondents who stated that they could speak about anything in their community language. In all four communities, a shift in proficiency was noted across the age groups. Older respondents had greater proficiency in the community language, and were confident in their abilities in their community language, while the middle and younger respondents appeared less confident. The differences in proficiency across the three age groups were judged to be statistically significant in all four communities. Similar trends were observed for listening, reading and writing skills in each of the community languages.

Table 3: Reported Proficiency in the Community Language (CL) by Age Group and First Language Proficiency (as measured by ability to speak about anything)

<table>
<thead>
<tr>
<th>Language</th>
<th>Old</th>
<th>Middle</th>
<th>Young</th>
<th>Spearman Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongan</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>.041</td>
</tr>
<tr>
<td>Samoan</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>.001</td>
</tr>
<tr>
<td>Niuean</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Cook Islands Māori</td>
<td>10</td>
<td>9</td>
<td>4</td>
<td>.001</td>
</tr>
</tbody>
</table>

Shading indicates significant age-grading for 5 point scale

These findings on proficiency are closely related to those on first language acquisition, presented in Table 2. All but one of the older respondents who stated that they could have a conversation about anything in their community language (CL) also stated that the first language spoken was the CL. All of the middle-aged respondents who reported they could have a conversation about anything in the CL had their CL as their first language. A similar trend was observed in the case of our younger respondents. Only two of the fully proficient younger speakers claimed to have English as their first language. This points to a strong relationship between early language acquisition and language proficiency.
**English proficiency**

Table 4 focuses on reported English proficiency. Again there is an inverse relationship between proficiency and speaking ability across the three age groups. Older respondents were less confident in English, while our middle-aged and younger respondents were more confident in English. This trend was judged to be statistically significant for all four age groups. Similar trends are observed for reading, writing and listening skills in English for most of the communities. The exception is the Tongan community, where age-graded differences did not appear for reading and listening skills. Although English language skills and community language skills need not be in opposition, this appears to be the case in the Pasifika communities. The community languages appear to be losing ground to the dominant language, English.

<table>
<thead>
<tr>
<th>Community</th>
<th>Old</th>
<th>Middle</th>
<th>Young</th>
<th>Spearman Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongan</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>.027</td>
</tr>
<tr>
<td>Samoan</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>.005</td>
</tr>
<tr>
<td>Niuean</td>
<td>2</td>
<td>9</td>
<td>10</td>
<td>.000</td>
</tr>
<tr>
<td>Cook Islands Māori</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>.001</td>
</tr>
</tbody>
</table>

Shading indicates significant age-grading in the community

The above results suggest a clear shift from the community language to English. This may have little effect on the community language at the present time as most of those sampled are bilingual. However, if the trends continue, worrying levels of language shift in the four community languages can be expected within the next generation.

**Responsibility for Maintenance**

Who then should be responsible for maintaining the community language? When our 120 respondents were asked the question *'Who do you think should take the most responsibility for supporting your community language?’* many gave multiple answers. However, clear tendencies emerged from the data. The most common response was the family, the second most common responses were the community, school and church. This was followed by the government and elders and leaders in the community. Little emphasis was placed on individuals, the children or researchers or others who protect the language (see Table 5).

<table>
<thead>
<tr>
<th>Who Should Be Responsible for Supporting Your Community Language?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
</tr>
<tr>
<td>Community</td>
</tr>
<tr>
<td>School</td>
</tr>
<tr>
<td>Church</td>
</tr>
<tr>
<td>Elders</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Children</td>
</tr>
<tr>
<td>Individuals</td>
</tr>
<tr>
<td>Researchers</td>
</tr>
</tbody>
</table>

In all four communities the family was considered important in language maintenance. Although a few individuals mentioned grandparents and other family members, the role of parents as the primary caregivers of their children and their language was emphasised. The comments from the Tongan community focused on the role of parents in
the home, while the other three Pasifika communities placed less emphasis on the home, and greater emphasis on
the parents. Some of these comments are listed below.

- *It starts from home with parents... following their footsteps... passing down from parents to children.*  
  (N1)

- *It’s upon CI parents. Parents’ responsibility to support and encourage our language.*  
  (C7)

- *Parents, teach your children the language... community church, teach culture and language.*  
  (S21)

- *Parents at home, speaking Tongan should first be at home; first teachers: mum and dad.*  
  (T5)

The Cook Islands community stands out from the other three Pasifika communities. The Cook Islanders in this
survey mentioned the role of their community more than they mentioned the role of the parents in language
maintenance. The following comment is typical of many of the responses from the Cook Islands community.

- *Ourselves, Cook Island people. If we say that our language is very important then we should be
  responsible in supporting our language, so that it may not be lost.*  
  (C6)

The responses varied when it came to the role of the church and the school. In the Samoan and Tongan communities
the church plays a vital role in community life. The church was the second most common response from the Samoan
and Tongan respondents. The Cook Islands and Niuean communities placed less emphasis on this institution believing
that the community as a whole should play an active role in language maintenance:

- *Churches, Tongan communities. Churches because it is the ideal place to support children in terms of
  spiritually but also education such as using the Tongan language.*  
  (T16)

- *Church ministers, community groups. Samoan language should start in the home as English is spoken
  in the schools.*  
  (S24)

Schools were thought important in the Tongan and Samoan communities, but less so in the Niuean and Cook
Islands communities. Although respondents mentioned the importance of teachers, educators and school, the school
was often viewed as taking a supportive role in community language maintenance working together with parents, as
illustrated in some of the following examples:

- *Parents at home [should] speak Niuean at home all the time.
  Teachers[s]... because they’re the second teachers in the children’s life.*  
  (N7)

- *Schools and home. [They] should have Tongan classes at school and should mostly use Tongan
  language at home, if they speak between English and Tongan.*  
  (T12)

- *Parents, teachers, minister. They should teach the young child Samoan so that as they grow, [they
  will] know their Samoan language importance.*  
  (S4)

- *The teachers at school. Primarily teachers are the ones who will be teaching in the schools. Secondly,
  the home are [sic] to be responsible.*  
  (C24)

The role of the government was discussed by several of our respondents at the local, New Zealand and Pasifika
nation level. Some of the comments reflected the view that the government ought to play a supportive role in the
community, while others believed that the role should be a more active one:

- *Parents, church, then elders of the community, then ultimately to the Cook Island government.*  
  (C3)

- *Parents teaching Samoan language, preschools, schools, courses, universities, government funding.*  
  (S27)
**Council**, they should look after the area so they should also look after other communities. *(T17)*

**Government**… It is the government’s responsibility to protect the people’s and the nation’s language. Parents to practise the language with their children. *(N21)*

The only other group to have any significant role in community maintenance are the elders. These were emphasised in the Samoan community, but received little mention in the other three Pasifika groups (see Table 6). The Samoan community was also unique in its mention of the role of the individual, with all three mentions of the role of the individual from the Samoan community. Children were not seen as being responsible for their own language maintenance, nor was any emphasis placed on the role of the researcher.

Successful community language maintenance is achieved by targeting appropriate groups in the communities, ones that the community believe should be responsible for CL maintenance. Once these groups are located, the next question is what kind of advice should be given. In order to answer this question, we turn to the field of Second Language Acquisition.

### Table 6: Who Should Be Responsible for Maintaining the Language?

<table>
<thead>
<tr>
<th></th>
<th>Samoan</th>
<th>Niuean</th>
<th>Tongan</th>
<th>Cook Islands</th>
<th>Māori</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>23</td>
<td>21</td>
<td>18</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Church</td>
<td>13</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>11</td>
<td>6</td>
<td>13</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Elders, Leaders</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Individuals</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Protectors/Researchers</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Shading indicates most frequent response per community

### SECOND LANGUAGE ACQUISITION

In this section we consider some theoretical issues in the field of SLA, then we describe how these explain Pasifika language shift and inform Pasifika language maintenance.

#### Theoretical Issues in SLA

**Extraordinary capacity to develop language ability**

Stephen Krashen posited the concept of ‘acquisition’ as opposed to ‘learning’. Language acquisition, on the one hand, is the ‘natural’ way to develop linguistic ability, and is a subconscious way; children, for example, are not necessarily aware that they are acquiring language, they are only aware that they are communicating *(Krashen & Terrell, 1983, p. 26)*. The end product or result of the process of ‘acquisition’ is linguistic competence, which is also subconscious. The learner is not aware of rules: ‘we have a “feel” for correctness; when we hear an error we may not know exactly what rule was violated but somehow “know” that an error was committed’ *(ibid. p. 26)*. ‘Learning’, on the other hand, is the conscious process of learning about the formal properties of a language. The result of ‘learning’ is ‘formal knowledge’. This is ‘explicit knowledge of rules, being aware of them and being able to talk about them’ *(ibid. p. 26)*. This kind of knowledge ‘is not responsible for fluency, but only has the function of checking and
making repairs on the output of the acquired system’ (ibid. p. 31). Automatic and spontaneous use of language results only from ‘acquisition’, not ‘learning’. Thus, ‘acquisition’ is the fundamental process that gives rise to linguistic competence.

Similar distinctions have been made by others, reflecting this extraordinary capacity. Harold Palmer wrote that ‘each of us, child or adult, possesses…certain capacities for the spontaneous assimilation…of any given language, native or foreign’ (Palmer, 1922). These constitute ‘unconscious assimilation; we learn without knowing that we are learning’. We learn ‘without the giving of our conscious attention, without deliberate effort or striving’. On the other hand, ‘in addition…we possess what we may term “studial” capacities’. These are ‘the utilisation of…conscious and focused attention’, ‘non-natural methods’ in which the learner ‘learns rules in order to become proficient in analysis and synthesis; for the same purpose, he memorizes the exceptions to rules’. Palmer warned against the learner using or being taught to use ‘all manner of studial methods at the expense of spontaneous ones’ for in doing so, he ‘develops his studial capacities at the expense of his spontaneous ones’. So saying, Palmer views ‘spontaneous assimilation’ as the fundamental process rather than ‘studial capacities’. Krashen’s ‘acquisition’ is Palmer’s ‘spontaneous capacity’, and Krashen’s ‘learning’ is Palmer’s ‘studial capacity’.

Rod Ellis and others make a similar distinction between implicit and explicit knowledge. Explicit knowledge refers to the ‘facts that a person knows about language and the ability to articulate those facts in some way…. Implicit knowledge is information that is automatically and spontaneously used in language tasks. Children implicitly learn phonological, syntactic, semantic, and pragmatic rules for language, but do not have access to an explanation, explicitly, of those rules. Implicit processes enable a learner to perform language but not necessarily to cite rules governing the performance’ (Brown, 2000, p. 285). Other dichotomies along the same line of thinking have been proposed, such as McLaughlin’s automatic versus non-automatic processing, and Bialystok’s reference to unanalysed and analysed knowledge in which unanalysed knowledge is ‘the general form in which we know most things without being aware of the structure of that knowledge’ whereas in analysed knowledge, ‘learners can verbalize complex rules governing language’ (Bialystok, 1982, p. 183).

We note that these dichotomies refer to processes as well as the products of those processes. For example, one undergoes a process of implicit learning to attain one’s state of implicit knowledge of a language. In most of these distinctions there is a belief in one side of the dichotomy being more basic or fundamental, more effective or more desirable than the other; for example, ‘acquisition’ is regarded as more fundamental and effective than ‘learning’. In all but the acquisition/learning distinction, there is an implied journey from one to the other in each dichotomy. Krashen’s theory is the only one that specifically states that the two systems are separate and do not necessarily link up. This part of his theory upset many of those who were teaching formal grammar as a means of attaining linguistic competence, and is still a topic of research today.

Krashen describes this capacity for developing ability of a language as the ‘natural’ one and is not, therefore, brought about by formal learning; that is, the learning (studying, memorising, analysing, and so forth) of form or structure. He goes further and maintains that learning form is unnecessary and does not lead to linguistic competence. Although many practitioners and theorists in the field questioned and expressed their opposition to Krashen’s theory, nevertheless the field has not ignored his hypotheses; instead many have spent years trying to disprove his claims. It led to major research investigating the effectiveness of methodologies that ‘focus on form’ and those that ‘focus on content’. Many have argued or found that focusing on form was leading, among certain kinds of adult learners, to at least some linguistic competence. However, there is still no indication whether ‘focus on form’ is effective in any major way. Several important theorists have followed Krashen’s lead and added to his theory. Michael Long’s interactional hypothesis and perhaps Hatch’s scaffolding hypothesis are examples.

The difficulty of proving or disproving Krashen’s distinction between ‘learning’ and ‘acquisition’ is because it is rare to find cases of learners just ‘learning’ or just ‘acquiring’. In real life, learners tend to be in situations where they are doing both, and so it is difficult to determine unambiguously whether ‘learning’ has succeeded or not.
because at least some ‘acquisition’ is taking place simultaneously. We argue later that shift from one language to another, such as Pasifika youth shifting to English in the New Zealand context, provides support for Krashen’s theory.

But Krashen’s theory finds support in a very different context outside of SLA. In his brilliant critique of theoretical linguistics, Grace makes a similar distinction to Krashen’s distinction between ‘learning’ and ‘acquisition’ and argues that the two are separate. He distinguishes between two modes of knowing: the analytic mode, which is the way of knowing structural principles, or generalisations; and the holistic mode, which is the way of knowing a linguistic form immediately and as a unit (Grace, 1981, p. 19). He criticises linguistic theory for focusing on the analytic mode of knowing, leading to the emphasis on the grammar–lexicon model. He argues that the most important thing we can study about a language is its relationship with thought and with culture – that is, with the external world – and viewing language as form that partitions into the grammar and the lexicon has led to the current focus of linguistic theory on the grammatical apparatus, and distances it from the study of the relationship of language with the external world.

Grace says that there is a tendency for grammars to assume a kind of reality of their own, and often linguists assume that their grammatical descriptions are the languages themselves. Yet, grammar and lexicon are terms referring to parts of linguistic descriptions, not to parts of languages’ (Grace, 1981, p. 14). Such assumptions – assumptions relating to the understanding or view of ‘language’ as predominantly form and structure – have led to the pervasive belief in the use of grammars and dictionaries as instruments for bringing about linguistic competence and/or language maintenance (but see below for Topping’s view). Thus, basically, the direction in which Grace’s theory moves is that the learning of form leads to knowledge of form, not knowledge of languages. Linguistic theory has gone the way of the analytic mode and neglected the more fundamental mode of holistic knowing. Linguistic theory as it is presently constituted does not account for the native speaker’s competence, in which, Grace believes, the holistic mode of knowing is fundamental and should therefore be a focus of theoretical linguistic research.

Grace’s view is thus parallel to Krashen’s in that formal learning is a different system from the acquired system and that formal learning leads to formal knowledge, not to linguistic competence. In their many different ways, theorists and practitioners in SLA have explicitly or implicitly brought to us warnings against the limitations of formal learning or learning form and structure (where the goal is to gain competence in the language), but no one more strongly than Krashen, especially when he advocates the separateness of the two processes of ‘acquisition’ and ‘learning’. ‘It is proposed that adult second language learners concurrently develop two possibly independent systems for second language performance, one acquired, developed in ways similar to first language acquisition in children, the other learned, developed consciously and most often in formal situations’ (Krashen, 1981, p. 1).

Whereas mainstream linguistic theory and many SLA theorists and practitioners view language primarily as a formal system, Grace’s conception of ‘language’ is concerned with both form and content. He maintains that content resides in form in such a way that the two are really one in real life experiences, so much so that when the learner ‘picks up’ a language, he or she is acquiring both form and meaning at the same time. ‘A key point is that style [a person’s personal use of language]…does not consist just of form as opposed to meaning. Sometimes we talk as if form and meaning were on two separate planes with each plane having its own set of patterns, but we do not easily imagine patterns to exist that involve elements of which some come from one place and some from the other…. In learning a language, human individuals have inculcated into them both the means of expression [form] and what to express [content] in a largely inextricable mixture’ (Grace, 1981, p. 69). Grace has reached these notions via trying to determine at the outset what language really is. He defines language as a device for saying things. This view of language dispenses with the current emphasis in linguistics on form. ‘Saying things’ necessitates enquiry into both the means of expression (form) and what to express (content), and ‘input’ (see below) of things said are messages whose meanings reside in the means of expression.
Conditions for language ‘acquisition’

Input that makes sense

One of the most important external factors identified in SLA and CLA research is that of the input that learners receive; that is, the samples of language to which a learner is exposed. Language acquisition cannot occur without input. According to Krashen’s input hypothesis, L2 acquisition takes place when a learner understands input that contains grammatical forms that are at ‘i + 1’ (i.e. are a little more advanced than the current state of the learner’s inter-language). Krashen suggests that the right level of input is attained automatically when interlocutors succeed in making themselves understood in communication. According to Krashen, then, acquiring a second language depends on comprehensible input.

Grace attempts to characterise the holistic way of knowing in a very similar way – by proposing that human beings possess an ability to recognise patterns. ‘This postulated ability…enables us to recognise an entity that is similar to, even though not identical with, a previously known entity. It permits us to recognise such similar entities – entities that represent transforms of a known pattern – whatever the nature of the original pattern and the manner of its transformation, provided only that the transformation is not too great’ (Grace, 1981, p. 71, our emphasis). Grace’s explanation of what causes the holistic mode of knowing, that is, through recognising patterns that are similar, is very similar to Krashen’s description of acquisition being ‘caused’ by the learner receiving comprehensible input. Both Krashen’s and Grace’s conception of acquisition are similar to Ausubel’s general theory of learning by meaningfulness (Brown, 2000).

Michael Long and others have formulated the interactional hypothesis to extend Krashen’s notion of acquisition by comprehensible input. According to this hypothesis, learners acquire better when, in addition to receiving input in the language that they can understand, they also interact and negotiate meaning with others. In this way, they consolidate and practise what they acquire. Long argues that comprehensible input is the result of modified interaction that native speakers and other interlocutors create to make input comprehensible to learners. A similar perspective is that provided by Evelyn Hatch. She suggested that ‘scaffolding’ needs to take place (Ellis, 2001). This refers to when learners use input/discourse to help them produce utterances that they would not be able to produce on their own. It seems that both Long and Hatch assume the presence of input, the availability of which would enable interaction and scaffolding to take place. Input is the first necessary requirement.

Although Lightbown and Spada (1993) claim that no research has provided direct evidence for the claim that comprehensible input causes or explains acquisition, writers in SLA now acknowledge that at least naturalistic learning, learning that resembles as much as possible the way a first language is learnt, yields the best results in terms of fluency in a language. In assessing the success of bilingual education in the world, Holmes (1987) finds that there is one basic similarity characterising all successful bilingual education: the focus is on the message not on the medium, the function not the form, the content rather than the structure. Ellis (1985) tabulates types of classroom settings, clarifying whether the focus is on form or meaning and how they resemble a natural setting. The immersion classroom is said to focus on meaning, has simplified input, and has the strongest resemblance to natural settings, with opportunities for the negotiation of meaning, especially if it is learner-centred. He asserts that there are strong grounds for assuming, as does Krashen, that the role of the environment is the same in first and second language acquisition.

Among the findings based on recent research that McLaughlin (1978) lists as acceptable now and which may be regarded as generally true is that ‘knowing a rule does not mean using it in communication’. This is probably the single most important principle that reduces the importance of the formal study of language. The implication is that the study of formal descriptions of language in grammars and dictionaries does not necessarily lead to learners using the rules and knowledge they gain; that is, they do not thereby internalise the rules or knowledge. For the purposes of language maintenance, formal knowledge is therefore not sufficient.
The implication of the discussion on the previous section on form and content is that we may need to remind ourselves that form and content are linguistic constructs that have reality only in an analytic context. It would be well to regard input as consisting of both form and content in a largely inextricable mix. Since messages have no existence that is independent of form, the act of comprehending input – which is what is here hypothesised to ‘cause’ acquisition – would be as much to do with form as with content because form and content build a single entity, perceived as a meaningful message. In this way, there appears to be no separate processing of form as an entity that is separate from content – except when there is no understanding. Translation into the source language would be counterproductive because it would separate content from the form of the target language and impose the already known form of the first language. When form and meaning are separated by focusing on form, the automatisation of form and meaning characteristic of acquisition would be difficult to bring about.

The role of the learner’s age

Given the state of research in the age factor, it may be safely assumed that in a general and fundamental way, the ability to acquire a language is strongest when the learner is young although studies show that adults do not lose the ability to acquire. Lightbown and Spada (1993) warn against intensive exposure to a second language at a very young age where the first language is a minority one:

*When the objective of second language learning is native-like mastery of the target language, it is usually desirable for the learner to be completely surrounded by the language as early as possible. However, in the case of children from minority language backgrounds or homes where language, literacy, and education are not well-developed, early intensive exposure to the second language may entail the loss or incomplete development of the child’s first language. This leads to so-called subtractive bilingualism, where one language is lost before another is fully developed. (pp. 49–50)*

The risk of the occurrence of subtractive bilingualism is itself an indication of the importance of the age factor. It is to be noted that in situations of language shift, it is members of the younger generation, not the older, whose language proficiency tends to be characterised by subtractive bilingualism. Lightbown and Spada add:

*Subtractive bilingualism may lead to academic and personal problems. For these children, programs promoting the development of their first language at home and at school can help to prevent some of these problems. Such programs allow children to continue to use their stronger first language while they learn the second language. This encouragement of the first language can have positive effects on the children’s self-esteem, on their relationships with their parents, on their early cognitive development, and somewhat paradoxically, on their eventual mastery of the second language.*

It is worth noting that external factors associated with being young as opposed to being old may be quite important. For instance, it may be that the older person is not as steeped in second language input as a younger person. Older people are much more likely to continue to function in their first language thus preventing them from actively becoming immersed in input in the additional language. Older persons are less likely to lose a language already acquired because they are much more likely to operate in it for much of their time.

The extent of the learner’s motivation

Numerous studies, such as that of Dörnyei (1998) have shown that motivation is a significant aid to learning. An important kind of motivation is instrumental motivation, which refers to acquiring a second language as a means for attaining goals such as furthering a career (Gardner & Lambert, 1972). Integrative and assimilative motivation relate to learners who wish to integrate or assimilate into the culture of the second language group. Extrinsic motivation characterises learners who carry out an activity in the anticipation of a reward such as money, while intrinsic motivation refers to when people engage in the activities for their own sake, being rewarded only by feelings of fulfillment or enjoyment. Among children it may be manifest as strong desire to be able to communicate and be with peers who do not speak the same language. This would cause them to seek to acquire the language of their peers. The different kinds of motivation are not mutually exclusive.
The role of attitudes is also important: ‘It seems clear that second language learners benefit from positive attitudes and that negative attitudes may lead to decreased motivation and, in all likelihood, because of decreased input and interaction, to unsuccessful attainment of proficiency’ (Brown, 2000, p. 181). Young children appear to be less affected by attitudes as they may be too young to develop strong attitudes towards races, cultures, and so forth. MacNamara maintains that ‘a child suddenly transported from Montreal to Berlin will rapidly learn German no matter what he thinks of the Germans’ (cited in Brown, 2000, p. 66). However, parents can influence the development of their children’s attitudes which can in turn influence the amount of input accessed by young people.

An attitudinal change was set in motion by the colonial situation to which Pasifika nations were subjected in the nineteenth century. The colonial experience resulted in many Pasifika languages losing their high status. English became the language of prestige, being the language of commerce and education in most parts of the Pacific. A consequence of this linguistic imperialism has been the devaluing of vernacular Pasifika languages through the colonial spread of English. The attitudes propagated by this situation even now can be held partly responsible for the eventual decline of Pasifika languages. The overall result of this process in the Pacific was that Pasifika peoples themselves aspired to English acquisition and in general decided that Pasifika languages stood in the way of competence in English. Many caregivers have decided that their children do not need to learn their vernacular language but use the time to learn English. This negative attitude to the Pasifika languages has also caused many caregivers to use English, not the Pasifika language, at home. This is a major attitudinal problem that Pasifika peoples must somehow overcome if they want to maintain their languages. Fortunately, there are Pasifika peoples who still value their languages and who have begun work on Pasifika language maintenance.

SLA and Pasifika Language Shift

Having focused on the main factors that bring about language acquisition generally, we now turn to an examination of those factors in relation to the acquisition of English by young Pasifika peoples in New Zealand. From the perspectives of SLA, when Pasifika groups of people ‘shift’ from their language to English, it is because they are becoming engaged in ‘acquisition’ of English. What is more, they are undergoing successful acquisition of English without being formally taught it. This sends us a message about formal learning – that formal learning is not essential to bring about language acquisition. Conditions for the acquisition of English must have been satisfied, whether the English acquisition was an intentional outcome or not. Here, then, is partial support for Krashen’s ‘acquisition’/‘learning’ hypothesis. Whole generations of young people may acquire – indeed have acquired – the dominant language without being formally taught it.

Conditions required for the acquisition of English includes, firstly, the provision of input in English. When children receive instruction in English in their school subjects, they are receiving input for their acquisition of English. Because most schools in New Zealand use English as medium of instruction, in terms of SLA, children are immersed in English input all the time they are at school. In studying content subjects, in terms of SLA, young Pasifika people are acquiring English subconsciously because they are receiving large doses of English input which are meaningful to them. This acquisition process continues in non-school contexts when they interact with one another in the common language English.

It should be noted that younger Pasifika people are acquiring English more efficiently than older people. We can observe that only younger people are actually ‘shifting’. As noted earlier, older and middle-aged people are not ‘shifting’. Young people probably receive much more input in English than their adult counterparts because they interact in English at school and also with their friends, who, because of their different ethnicities, would use English as a common language. In comparison, adults live in contexts in which they can operate and function almost entirely in their Pasifika languages. They would read newspapers and listen to music in the Pasifika languages more often than younger people. Cultural events such as funerals and celebrations often take place in the Pasifika language. Younger groups attending such functions can receive input that way but often they interact among themselves in English.
Another factor in younger people’s effective acquisition of English is to do with motivation. Young people are motivated by their stronger need to communicate and co-exist with their peers and other English-speaking people in New Zealand. This puts them in situations where there is a lot of input in English. Their shift to English is accelerated by the attitude of some caregivers towards English. They regard English as the key to success, so they encourage their children to use English all the time, even in their homes.

SLA and Pasifika Language Maintenance

It must first be stated that Pasifika language maintenance must take place within the general goal of bilingualism and biliteracy in English and the Pasifika language. The goal of Pasifika language development is to acquire the Pasifika language while still retaining or acquiring English. This will have a bearing on the allocation of input and resources for the acquisition of the two languages. Literacy in both languages requires input of written material in both languages. Pasifika peoples in New Zealand must deal with unequal input levels in which English far exceeds that of Pasifika languages. An appropriate point of compromise must be sought so that young Pasifika people receive much more input in the Pasifika language than what is available at present and still allow for the development of literacy in English.

The colonial situation prevalent in the Pacific gave rise to negative attitudes towards the Pasifika languages. All over the Pacific the Pasifika languages are losing their mana except in very traditional domains, such as traditional ceremonies which require oratory in the Pasifika language. This kind of attitude would have to be overcome if the languages are going to be maintained successfully.

For language maintenance to be successful, language acquisition of the declining language needs to take place. This cannot take place without the provision of abundant comprehensible input in the language. Caregivers need to provide input through using the Pasifika language in the home. In those homes where caregivers themselves have experienced language loss, there needs to be alternative ways of providing input, such as recordings and reading material. In the schools that teach the Pasifika languages, plenty of audio, visual and written material should be provided, and special care needs to be given to children who receive little input at home. Pasifika communities, in particular Niuean and Cook Island communities, need to find ways of bringing together their young people with their older Pasifika speakers. Other community events such as church services need to be conducted using the Pasifika language. In some Pasifika medium churches, services are now held in English in order for young people to understand. In SLA terms, this means withholding input for acquisition. Although some uses of English at home and in church are well-intentioned, in SLA terms the parents and church are inadvertently contributing to language shift and loss.

In the school system methodologies that work best for language maintenance are those that provide maximal input, such as immersion and dual medium bilingual education. In immersion situations, all the input learners receive is in the target language. Learners are placed in an ‘acquisition-rich’ environment. In bilingual education situations, the mediums of instruction are two different languages, so input is being received in two different languages in different time slots. Thus, there is no difference between immersion and bilingual education as methods of enabling language proficiency. Both are concerned with learners receiving comprehensible input, but immersion focuses on one language while bilingual education involves immersion in two languages.

The lesson to be learned from the theoretical positions discussed earlier is that language pedagogy and methodologies that rely on formal learning in schools need to be screened considerably. Whatever the shape of the language curricula used in the school system, their implementation must facilitate ‘acquisition’ rather than ‘learning’. The essence of acquisition is input. Translation into the first language is counterproductive because it means learners will be robbed of target language input and forced to keep resorting to the first language. This effectively halts acquisition. Pasifika teachers teaching Pasifika languages must teach in the Pasifika language. Explanations in
English will provide input for English acquisition, not Pasifika. The fluency and competence of the Pasifika teacher in the Pasifika language cannot, therefore, be underestimated. Where Pasifika languages are taught as subjects, success depends on their facilitating acquisition. This means that the major goal of the class is providing input in the Pasifika language all the time and keeping teaching in English to an absolute minimum.

Summary of advice for Pasifika language maintenance and instruction

For communities

The following points summarise ways in which communities can maintain their language:

- Communities need to focus their energy on facilitating ‘acquisition’ for young people. Since acquisition cannot take place without input, input should be made available for young people when they are aged 1–18. This input can be provided in the form of actual use in community events, such as church services, funeral services, cultural events and celebrations, sports meetings, and so forth. Community events need to take place in the Pasifika language. People who are in regular contact with the public, such as church ministers, teachers, masters of ceremonies in cultural events, doctors, nurses, and lawyers, need to continue to use the community languages. Media such as radio and newspapers need to keep using the Pasifika language for input. It is counterproductive that some services such as some churches and some print media such as some newspapers now use only English.

- Parents have a role to keep the home as an input-rich environment for young people. Families without input, those who no longer speak the Pasifika language, need recordings of the language as well as books in the language as input.

- Positive attitudes to the language are important to the extent that they enable input to be increased. Communities need to actively seek input in the Pasifika language. This means sending their children to Pasifika medium pre-schools.

For schools

The following points indicate ways schools can support Pasifika language maintenance and instruction:

- All classrooms need to be changed into ‘acquisition-rich’ environments. This means the teacher needs to provide as much input as possible, but input of an appropriate level so that messages are understood.

- In the second language classroom, the greatest value of having a teacher is to provide input that fosters meaningful communicative use of the language in appropriate contexts.

- All teaching needs to be in the Pasifika language. Explanations in English only provides input for acquisition of English and should be kept to a minimum.

- Methodologies used will be those that provide input.

- Ideally, teachers should be fluent in the Pasifika language because they need to provide rich and native-like input as good models for acquisition.

- Interesting reading material of an appropriate level needs to be provided abundantly as written input. Audio material should also be plentiful to provide input for listening.
CONCLUSION

The Languages of Manukau research project demonstrates a shift from the use of Pasifika languages to the use of English. If the trends shown in the research continue, there will be a significant level of language shift from the community languages of Tongan, Samoan, Niuean and Cook Islands Māori to English within the next generation.

To maintain the languages and halt their decline will require ‘comprehensible input’ – the languages need to be spoken in the home, at community events, and in schools. Homes where there is already a loss of the community language will need alternative means of gaining input, such as from recordings and reading material. Schools that teach Pasifika languages need to provide plenty of audio, visual and written material and give special care to children who receive little input at home.

Within the school system, the teaching may be either immersion or dual medium bilingual education, and the emphasis should be on language ‘acquisition’ rather than ‘learning’, and the input must be in the Pasifika language, with teaching in English kept to a minimum.

REFERENCES


A Snapshot of the Literacy Achievement in 1995 and 2002–2003 as an Indicator of Māori Language Acquisition for Year 2 Students in 80–100% Māori Immersion Programmes

Cath Rau

Cath Rau (Ngati Pūkeko, Tūhoe) is chairperson of the Kia Āta Mai Educational Trust, a charitable trust operating out of Ngāruawahia. The trust is supported by a network of Māori educationalists and schools, and its work focuses on the development of literacy initiatives to support Māori medium education at the local and national level.
A Snapshot of the Literacy Achievement in 1995 and 2002–2003 as an Indicator of Māori Language Acquisition for Year 2 Students in 80–100% Māori Immersion Programmes

Cath Rau

Abstract

One of the aims of Māori medium education is to address Māori language loss. One of the challenges facing Māori medium educators is to identify configurations that acknowledge the substantive importance of English language instruction without detracting from the priority that must be given to the regeneration of the Māori language. Issues relating to Māori/English bilingualism in the New Zealand context are introduced and discussed in the light of local and international literature on language acquisition and other related fields. This paper also presents and compares the results of testing from 1995 and 2002–2003 using a reconstructed standardised assessment in literacy for Year 2 students in 80–100% immersion in Māori as a measure of literacy and Māori language acquisition.

INTRODUCTION

The current provision of bilingual education in New Zealand can be traced back to educational policies of the 1970s. Such policies reflected efforts by the government of the time to address and cater for the ethnic and cultural diversity of its ever expanding (indigenous, settled and immigrant) population. A multicultural approach was favoured to begin with and later replaced with a bicultural one in the 1980s when it became apparent to Māori, the indigenous people, that multiculturalism was merely a more subtle form of the assimilationist agenda characteristic of preceding governments. (May, 2001; Bishop & Glynn, 1999; Jenkins, 1994). The multicultural approach placed all minority cultures including Māori into a large subordinate ethnic pool while preserving the dominance and superiority of the Eurocentric (Pākehā) majority culture. Being merged into a wider ethnic mosaic made it more difficult for Māori to argue their entitlement to the protection, rights and privileges promised in the nation’s founding document, the Treaty of Waitangi, signed with the British Crown in 1840.
Initiatives such as taha Māori where aspects of Māori language and culture were co-opted and injected into mainstream (English medium) programmes were introduced into schools beginning in the mid 1970s to appease and quieten Māori demands for schools to provide such instruction (Jenkins, 1994). Delivered within a Pākehā curriculum framework and taught mainly in the English language, this initiative further cemented the majority culture as the reference point for defining minority cultures (Bishop et al., 1999; McMurchy-Pilkington, 2001; Jenkins, 1994) while the limited teaching of Māori language meant that any notions of Māori/English bilinguality remained a long way off. Taha Māori did, however, act as a mechanism for validating Māori language and culture, raising the consciousness of mainstream New Zealand to be more accepting of variations on standard practice while also providing traction for Māori to pursue a more visible language and cultural identity.

Adoption of a more bicultural perspective signaled an intention by the state to redirect its attention and focus its energies on strengthening the relationship with Māori, as a treaty partner. Schools and bilingual units (classes within schools) became established during this period with the expectation that they would deliver the curriculum in Māori and English. Initiatives promoting and providing for Māori language instruction were becoming a matter of urgency as statistics revealed a language (and culture) in poor health and rapidly declining. While an advancement on taha Māori programmes, this early bilingual movement has also been criticised as merely being a concession to Māori aspirations for self determination (Jenkins, 1994). Catering predominantly for students long estranged from their own language and culture as a result of over 150 years of colonising processes, such programmes faced a difficult task given that they were often ill-resourced and ill-prepared to cope with the demands of plural language instruction. This situation was magnified for total immersion units and schools attempting singular (Māori) language instruction where resources and expertise were in even shorter supply. The fact that they were all still largely operating within existing structures and frameworks designed to support the majority culture was seen as a source of further impediment.

Coinciding with this period favouring a bicultural perspective was the emergence and proliferation of kōhanga reo (Māori language and culture preschools). This movement heralded an unprecedented surge in attempts by Māori to achieve some semblance of autonomy in education. Māori initiated and driven, kōhanga reo set about trying to provide optimum conditions for the regeneration of Māori language and culture. This included the restructuring of an educational institution along cultural lines (Bishop et al., 1999), maintaining control over operations and function by shunning state interference and targeting the exclusive use of Māori language as the means of communication, a difficult task given that they were staffed by predominantly second learners of the language with widely varying degrees of proficiency (Benton & Benton, 2000).

Parental demand that programmes cater for graduates from kōhanga reo left the primary school sector ‘scrambling’ to cope, hence the growth of bilingual and Māori immersion units. It is from this milieu that kura kaupapa Māori also emerged as a legitimate schooling choice. Kura kaupapa Māori aligned itself closely with the philosophy and practices of kōhanga reo and likewise sought to develop a distinctly Māori educational environment (Smith, 1992). Te Aho Matua, the document that embodied and articulated the philosophy of kura kaupapa Māori (Smith, 1999), acknowledged the substantive importance of the English language by identifying Māori/English bilingualism as a desirable outcome for its participants.

Early kōhanga reo and kura kaupapa Māori were privately funded, demonstrating the commitment of those Māori involved to their own development. This was particularly significant given that collectively, Māori are over-represented in lower socio-economic indices. Kura kaupapa Māori were officially recognised as a schooling alternative in 1989 when they were incorporated into the Education Amendment Act as a separate category entitling them to state funding.

The 1990s saw increasing numbers of students enrolled in Māori language programmes with those numbers peaking in 1999. By 2001, approximately 25,000 primary school-aged students, including a small percentage of non-Māori,
were participating in 430 schools (Ministry of Education, 2003). The vast majority of Māori, however, are still engaged in mainstream English language instruction despite high levels of underachievement continuing to be recorded for this group.

Māori medium education has become an umbrella term to describe the various schooling options operating in New Zealand where Māori language is used to deliver the curriculum (Hōhepa, 1998). These options are, however, not necessarily available in all communities nor in all forms. Schools are funded according to the extent to which Māori is the language of instruction ranging from 0–30% to 80–100%, the higher levels of immersion attracting higher levels of funding. This range therefore includes programmes largely reminiscent of the taha Māori approach of the 1970s through to total immersion units and schools, kura kaupapa Māori and hybrids of kura kaupapa Māori that choose not to be defined by the philosophical document Te Aho Matua. One of the desirable conditions for bilingualism is extended discourse in both of the languages of instruction. (Baker, 2001; Cloud, Genesee, & Hamayan, 2000). The low levels of Māori language discourse in 0–30% immersion in Māori programmes makes bilingualism, where students are proficient enough in the Māori language to be able to function both communicatively and academically, an unlikely outcome. Such reasoning is consistent with Cummins’ threshold theory discussed in Baker (2001) and Garcia (2000), where critical levels of proficiency in the two target languages are required for learners to derive cognitive benefit.

Māori medium education seeks to cater for students from the following language groups1 as identified by Rau, Whiu, Thomson, Glynn, and Milroy (2001) in a study that tracked the literacy achievement of Year 0 to Year 2 students in Māori immersion. The five groups are:

- children for whom Māori is their first and only language;
- children who have mixed competencies in more than two languages;
- children who have dual proficiency in both English and Māori;
- children for whom English is their first language but also have some competency in the Māori language; and
- children for whom English is their first and only language and who will begin their Māori language learning at school.

New entrants into Māori medium programmes at five years of age tend to comprise mainly children from groups four and five with group five children eventually moving into group four usually as a result of time in a Māori language programme. In contrast, there are very few children for whom membership of the first two groups can be claimed, with even fewer to be found in group two. Māori medium classrooms, therefore, can be every bit as diverse as English medium classrooms. Not all enrolments come from kōhanga reo where the Māori language is most likely to be acquired in preparation for school. Berryman (2002) reports that children with little Māori language proficiency can have a huge and immediate (negative) impact on Māori language development within those classes. State funded schools are legislatively unable to regulate admissions, leaving Māori medium contexts very sensitive to the language demographics of their student intake. This is just one of many factors, however, that contribute to the fragility of these programmes.

Underpinned by an agenda that includes language rescue, 80–100% Māori immersion programmes, by their very nature, emphasise and prioritise Māori language acquisition over the provision of instruction in the English language.

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1 Berryman, Glynn, Walker, Reweti, and O’Brien, (2001) identify four similar language groups. They chose to classify children according to the language(s) communicated to them in the home whereas Rau et al. have chosen to classify children based on the language(s) they can communicate in at school entry.
Baker (2001) presents a typology of bilingual education using 10 broad categories which are useful for analysing the intentions and possible outcomes of language programmes and advises of the ‘wide and numerous variations that can occur within a model’ (p. 193). This is borne out when this framework is applied to the 80–100% Māori immersion models operating in New Zealand. Programmes, for example, that exclude English language instruction outright from their curriculum (and there have been and may still be some) exhibit elements associated with a submersive type programme. This is identified as a weak or subtractive form of bilingualism with monolingualism being the desired language outcome. This is, however, hardly likely given that the New Zealand context is so saturated with the English language. The limited number of wharekura (Māori medium secondary schools attached to 80–100% Māori medium primary schools) which have become established invariably provide English language instruction. Some parents have also arranged and paid for private English language instruction to compensate and improve their child’s chances of engaging successfully with the demands and rigours of an English medium secondary school curriculum. For most 80–100% immersion primary school graduates, however, it becomes incumbent upon the general stream secondary school sector to provide appropriate programmes to compensate for the delay in explicit instruction in English. This often translates as admission into remedial English language classes usually reserved for immigrant students with underdeveloped English language skills. Such placement is unfortunate, as one of the key objectives of Māori medium education is to address Māori underachievement. This scenario ends up fostering the very phenomena that it is trying to prevent. Total immersion Māori programmes are classified as heritage programmes, a hybrid of enrichment and maintenance language programmes which are identified as strong or additive forms of bilingual education. Such programmes aim for bilingualism and biliteracy as the language outcome (Baker, 2001; Garcia, 1997; Lindholm-Leary, 2001).

Māori immersion education is currently grappling with how programmes might include effective English medium instruction without detracting from the fact that the regeneration of the Māori language is the priority. For students in Māori immersion, McCaffrey, McMurchy-Pikington and Dale (1998) recommend the introduction of English (which for most is their first language) somewhere after three to five years at the primary school level. Cummins’ interdependence hypothesis cited in Baker (2001) suggests that second language acquisition (L2) is influenced to a considerable degree by the extent to which the first language (L1) has developed. This means that where there is replacement of L1 with L2, as is the case in Māori immersion programmes where Māori language replaces English language, the development of the L2 may be relatively impeded. Furthermore, Cummins (2001) states that the interdependence hypothesis has also been ‘consistently supported in empirical research across a wide range of sociolinguistic contexts’ (p. 198). At face value, such statements might prompt Māori medium educators to abandon current approaches and consider other language configurations. The temptation to replicate effective programmes identified in the literature for achieving ideals of bilingualism can be compelling. Replicating the conditions that have influenced and shaped such success stories, however, is not so easily achieved. As Cummins (1996), Collier and Thomas (1989) and Hornberger (1989) concede, the language and instructional contexts and the social, economic and political status of the group can influence findings for bilingual children.

Hornberger (1989) offers further respite for Māori immersion where invariably Māori language is the sole language of instruction for the first few years of schooling by stating:

*The findings that a stronger first language leads to a stronger second language do not necessarily imply that the first language must be fully developed before the second language is introduced simultaneously or successively, early or late in that process.* (p. 287)

Berryman (2002) offers the beginnings of possible resolution in her analysis of the effectiveness of a home–school intervention programme to ‘transition’ Māori medium students in Years 6 to 8 into English. On a measure of reading using normative data generated from students in English medium, students who participated in the intervention were mostly scoring at age appropriate levels and better. This is an indication that existing Māori immersion configurations can lead to high levels of achievement in English language. This is indeed heartening given that literacy achievement levels for Māori students in English medium programmes (where there is a direct alignment
between home language and school language), using measures designed specifically for the medium of English, are so low.

Common to both L1 and L2 acquisition is the centrality of literacy acquisition (Baker, 2001; Bernhardt, 2000; Hamers & Blanc, 2000; Tabors & Snow, 2001; Elley, 1981). Māori, in the early days of European contact in the early eighteenth century, quickly adopted the print literacies of the West where formerly an oral language tradition persisted (Irwin, 1994). Literature in Māori has phased in and out of focus since, with periods of high productivity interspersed with longer periods of relative low productivity. The use of reading and writing in Māori in classroom programmes for the regeneration of the Māori language has sometimes been contentious, as acknowledged by Benton and Benton (2000) who state:

While some Māori nationalists and RLS (Reversing Language Shift) advocates have rejected literacy in Māori as an unwanted intrusion of pākehā technology into the sacred core of Māori culture, in general, Māori educators have vigorously promoted the acquisition of literacy though Māori. (p. 433)

Te Aika (1997) warns, however, that care must be taken when modifying English language methodologies for indigenous L2. This is based on the rationale that such methodologies are derived from and anchored in a Western world view, the pedagogies and values of which can subsequently undermine and transform those of the indigenous language and culture. Conklin and Lourie (1983) state that one of the factors that encourages language maintenance is the standardisation of the target language in print to enable efficient production of literature. Notwithstanding the impact of urban drift and the mobility of Māori as well as technological advances that makes language in print form so much more accessible, the effect on the Māori language has been the marginalisation of dialects. Dialect is being replaced with a language that is more pan-Māori in nature. Some Māori have reacted by trying to preserve and regenerate their respective dialects by producing literature in those dialects. This has often proved to be a costly, time-consuming exercise resulting often in only small numbers of titles being made available for use in schools. Māori are therefore faced with the sometimes unpalatable realisation that the survival of the language means that some the elements associated with identity, such as dialect, are forfeited.

The relationship between literacy and language is further highlighted by Bernhardt (2000), who asserts that (generous and prolonged) exposure to literature in a language facilitates the production of more complex language structures and more sophisticated vocabulary in adult speakers. Tabors and Snow (2001) emphasise the importance of early language acquisition and the critical role that preschool experiences plays in the development of precursor skills for literacy. Clay (1992), Fillmore (1991), Bernhardt (2000), Cummins (1993), and Skutnabb-Kangas and Cummins (1988) all advocate that the easiest transition into literacy is achieved by becoming literate in the language of strength. For most children entering Māori immersion programmes, this is English. It would appear, then, that current Māori immersion approaches flies in the face of mounting international research to the contrary by pursuing literacy instruction in the second language. Berryman (2002) reminds us that such a stance should not be based just on the structural differences that occur between languages of instruction alone, but that socio-cultural differences also have a significant impact. Political and historical influences, as outlined earlier in this paper, are equally important considerations. Continuity with kōhanga reo to capitalise on the heavy commitment and investment by Māori at the preschool level is also considered essential.

Being able to demonstrate student achievement is a basic expectation in any education system. Testing as one measure of achievement, then, becomes an important means of articulating and developing descriptions of that achievement, and performs different functions for different stakeholders. In Māori medium education, stakeholders include the Ministry of Education, Māori medium educators, the students and the students’ families (whānau). Cohen (1994) states that language testing assesses the results of language acquisition, while Bachman (1989) asserts that the field of language testing strives to describe language proficiency at any given stage of development. Further to this, Tabors and Snow (2000) state that children must demonstrate age-appropriate control over all aspects of the language system to be considered native speakers of that language. While achieving native-like proficiency in a
second language is rare anyway (Garcia, 2000), the situation becomes more complicated for Māori medium because what constitutes age-appropriate is being defined by L2 learners of Māori language who form the large majority in Māori medium education. Furthermore, models of Māori language are being provided by teachers who are mainly L2 speakers themselves.

All primary schools in New Zealand, including those offering Māori medium programmes, are currently operating in an environment where demands to provide evidence of student achievement are ever increasing. The National Administration Guidelines, revised in 1993, ensure that priority is given to literacy and numeracy. Many of the initiatives funded by the Ministry of Education are designed specifically to have these priorities realised.

This presents a special challenge in particular for Māori medium education, which, compared to English medium education, is still in its infancy (Rau & Berryman, 1999; Education Review Office, 2001; Bishop, Berryman, & Richardson, 2001). According to Hollings (1992), the Report of the Literacy Taskforce (1999), and Berryman, Rau and Glynn (2001), little research has been conducted that is centred on the systematic collection and analysis of data charting students’ progress and achievement in the medium of Māori. This is symptomatic of a paucity of standardised assessment procedures developed specifically for use in Māori medium programmes as well as the limited access that schools and teachers have to any assessments that have already been developed. (Rau, Whiu, Thomson, Glynn, & Milroy, 2001). This makes the monitoring and evaluation of student performance and learning programmes difficult.

Māori medium programmes, however, are still subject to and regulated by the same student performance compliances that apply to general education programmes, despite the fact that they have far fewer resources at their disposal, both human and material, to assist them to fulfil these obligations. The increased emphasis on accountability forces many schools to seek solutions that are compensatory at best, and often less than satisfactory. This includes translating into Māori standardised assessments developed by expert test constructors in English (Hollings, 1992; Bishop et al., 2001), despite early cautioning about such practices by people such as Spolsky (1987) who states:

> One clear danger would be any attempt to translate existing instruments in[to] Māori and assume any equivalence between the translated and the original. (p. 25)

For Māori medium, this task is often carried out by teachers in individual schools or within small clusters of schools who are less expert and less experienced at (standardised) test construction. Wide variations in teacher fluency levels in the Māori language and knowledge of second language acquisition theory further complicates the situation. Completed translated assessments and even copies of the work in progress tend to quickly circulate around other schools, where often further changes and adaptations are made. Critical factors such as reliability and validity are often compromised or sacrificed in the process, rendering such measures less effective in capturing student achievement for comparison.

Schools with Māori medium programmes, therefore, are limited to at least three standardised assessment procedures that can be used to assist them set benchmarks for student achievement in literacy, unlike English medium schools which have access to considerably more. This includes Assessment Tools For Teaching and Learning for Year 5 and Year 8 and Aromatawai-Urunga-ā-Kura for Year 0. The National Education Monitoring project (NEMP) samples students in English and Māori medium using ‘parallel’ tests with Year 4 and Year 8 students. Probes into performance trends in each of the eight curriculum areas occur cyclically over a four-year period. Some of the assessment tasks

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1 Standardised assessments provide uniform procedures for administration and scoring, contain pre-tested items of known difficulty and discrimination, are based upon and provide a set of norms that reflect the typical performance or scores of a particular group against which other individuals or groups that can claim membership to that group can be compared.

2 General education is a term used to refer to settings where English is the language of instruction.
are released at each phase and therefore are available for teachers to use. But what of Years 1 to 3, where successful literacy (and language) acquisition is a prerequisite for a student’s ability to profit from school-based learning?

Ngā Kete Kōrero research (1995), which organised student reading instructional material into increasing levels of difficulty, 4 marked an important point in the development of literacy initiatives to support Māori medium programmes for these formative years. For at least 10 years prior to this, various Māori versions of Marie Clay’s comprehensive assessment procedure, the six-year net (now known as an Observation Survey of Early Literacy Achievement), had emerged. Two groups of teachers combined forces and, with Clay’s guidance, set about producing an official Māori version supported by funding from an external (non-government) agency. The project had, however, reached an impasse in 1994 as the successful completion of one of the major tasks (text reading) was contingent upon reading material in Māori being levelled. This required organising reading material into increasing levels of difficulty for instruction. At the same time, Ngā Kete Kōrero research required a robust assessment procedure in Māori to assist with decisions about the difficulty level of reading material. The two project teams were able to synchronise their activities and work cooperatively to achieve their respective goals.

Completion of He Mātao Āta Titiro ki te Tūtūkutanga Mātātupu, Pānui Tuhi (He Mātao Mātātupu), the official reconstruction of Marie Clay’s Observation Survey of Early Literacy Achievement, culminated in the publication of the assessment manuals and test booklets in 1998. Of those already listed for Māori medium, it is the only assessment that was initiated by Māori and developed independently of any Ministry of Education agenda or policy. Access to the assessment, however, has been limited largely because the developers believe that comprehensive professional development for teachers is critical for effective implementation. This has not been possible until just recently. In 2002–03, a Ministry of Education-funded pilot initiative, called Ngā Taumatua, provided the opportunity to enskill 12 resource teachers of Māori in the administration and use of this procedure as part of a larger training programme focusing on Māori medium specific literacy initiatives. Part of their course requirements involved submitting assessment results from He Mātao Mātātupu testing of students in 80–100% immersion programmes to a central database. This has provided a unique opportunity to analyse and reflect upon the performance of a group of students upon which normative information was collected in 1995, with a different but comparable group of students in 2002–03.

The remainder of this paper focuses on describing the assessment tasks from He Mātao Mātātupu, and presenting, comparing and theorising about the results for the group of students assessed in 1995 and those assessed in 2002–03. These results will then be discussed in light of issues that revolve around language acquisition in Māori immersion settings.

METHODOLOGY

He Mātao Mātātupu comprises six tasks that assess reading and writing. It takes approximately 40 minutes per student to administer. The six tasks are:

- te tāutu reta (letter identification);
- űa tikanga o te tuhi kōrero (concepts about print);
- te whakamātautau kupu (word recognition);

Prior to this research, reading material in Māori was unlevelled. Teachers, in their desire to make better matches between reading material and learner need, developed their own levelling systems which invariably differed from one school to the next. This meant it was very difficult to establish shared understandings about student achievement across Māori medium literacy programmes because the markers against which achievement could be measured were so inconsistent.
He Mātai Mātātupu is a reconstruction5 (rather than a translation) in Māori of the original work developed in English by Marie Clay (Rau, 1998). Like its English language counterpart, each of the six tasks provides singular information about student performance after a minimum one year of instruction in Māori. Analysing performance across tasks, however, provides a more comprehensive picture of student achievement.

PARTICIPANTS

Students

Student participants from both the 1995 and the 2002–03 research were drawn from 80–100% immersion in Māori programmes. The 1995 sample comprised 111 students, whose ages ranged from 6.0 years to 7.0 years. The results for only 97 of the original 111 were retrievable due to data storage problems6 and so this analysis is based on a sample size of 97 for 1995. Testing took place over a period of five months from June to November 1995. The 2002–03 sample comprised a total of 100 students aged 6.0 years to 7.0 years. This testing point provided a more representative sample of the country than the first, with the inclusion of four other areas. Testing covered a period of seven months from September 2002 to April 2003.

Table 1: Number and Location of Schools Where Students Contributed Results From Testing Using He Mātai Mātātupu to a National Database

<table>
<thead>
<tr>
<th>Location</th>
<th>No. of participating students</th>
<th>1995</th>
<th>2002–03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>10</td>
<td>16</td>
<td>Auckland</td>
</tr>
<tr>
<td>Waikato</td>
<td>53</td>
<td>28</td>
<td>Waikato/Bay of Plenty</td>
</tr>
<tr>
<td>East Coast</td>
<td>34</td>
<td>32</td>
<td>East Coast/Hawkes Bay</td>
</tr>
<tr>
<td>Wellington/Southland</td>
<td>24</td>
<td></td>
<td>24 Wellington/Southland</td>
</tr>
</tbody>
</table>

Students who had been receiving literacy instruction in Māori at school for at least one year were included in the sample on both occasions. This was established as a necessary condition for the 1995 testing as some students entering 80–100% total immersion in Māori programmes enrolled in these programmes having only previously participated in English language programmes. It was deemed inappropriate and unfair to test students who had had less opportunity for literacy learning in the targeted language (Māori) and compare their performance with that of their newly acquired cohort group (Rau, 1998).

Assessors

In 1995, He Mātai Mātātupu assessments were administered by a mixture of the teachers of the Year 2 students in each of the six participating schools7 as well as other professionals attached to those schools either as a resource

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1 Refer to Rau (1998) for finer detail regarding the reconstruction process. It is also worth noting that this assessment has also been developed in other languages such as Spanish, Welsh and Hebrew.

2 Some of the results were produced and stored on facsimile paper, and the ink deteriorated over time.

3 Inter-observer reliability between assessors is reported in Rau (1998).
teacher of Māori or as a researcher. Data for 2002–03 were collected by 11 participants in the Ministry of Education’s Ngā Taumatua pilot programme who were trained in the procedures. Training was provided by expert administrators who observed the learner administrators practising with students. Further tuition and practice followed by more observations by expert administrators continued until a high level of competency was reached as determined by those expert administrators.

RESULTS

Comparing Student Scores across Tasks

Student data have been organised into two age bands – 6.0 years to 6.5 years of age and 6.6 years to 7.0 years of age. This allows for comparison in student performance according to length of time in a Māori medium literacy programme; that is, zero to five months and six months to one year respectively. Results for boys and girls have also been presented separately to allow some comparison on performance based on gender.

In the 1995 research, raw student data for each of the assessment tasks were transformed into quartile scores. Conversion to quartiles scores provides a means of comparing performance across different tasks even though the total raw score possible for each respective task differs. For example, te tāutu reta (letter identification) is out of a total 33, while te tuhi kupu (correct recording of words) is out of at least 65. Conversion to quartile scores means that a quartile score of four in te tāutu reta can be directly compared with a quartile score of four in te tuhi kupu.

For the purposes of this paper, however, the comparative results are reported as average scores (rather than quartile scores) for each of the six assessment tasks. This was deemed more appropriate in this instance as major gains in test score are required in order to effect change to quartile score (Rau, 1998). It is possible, therefore, that differences in performance between the two time periods, 1995 and 2002–03, might not register if the grosser measurement (quartile score) has been applied to measure difference. For example, in the 1995 sample, the average score for students aged 6.0 to 6.5 years on the letter identification (te tāutu reta) task was 22.8 which equates to a quartile score of two. There was an increase in the average score of students of the same age band in 2002–03 from 22.8 in 1995 to 29.2, a difference of six items. The average score for the latter sample, however, still equates to a quartile score of two.

Similarly, the use of quartile scores might not capture differences in scores between younger and older age bands in the same time period. For example, in the 2002–03 sample, girls aged 6.0 to 6.5 years on average scored 27.9 out of a total 41, which equates to a quartile score of two for the task of hearing and recording the sounds in words (whakarongo, tuhia ngā tangi o roto i ngā kupu). Girls aged 6.6 to 7.0 years on average scored 33.7 which also equates to a quartile score of two on the same task. No change in quartile score occurs even though (on average) girls in the older age band are recording approximately six more letters for sounds in that task than their younger counterparts.

Comparing Student Scores across Time

Results for students aged 6.0 to 7.0 years in the 1995 sample are compared with results of students aged 6.0 to 7.0 years in the 2002–03 sample.

Each of the six tasks will be treated in turn, and will include a description of the task, tables of the results and an analysis of results. The tables for the 1995 sample report on a total of 97 students include 36 students aged 6.0 to 6.5 years (17 boys and 19 girls) and 61 students aged 6.6 to 7.0 years (20 boys and 41 girls). The tables for the 2003
sample report on a total of 100 students, with 45 aged 6.0 to 6.5 years (27 boys and 18 girls) and 55 students aged 6.6 to 7.0 years (23 boys and 32 girls).

**Te ātutu reta (letter identification)**

**Description of task**

The student is presented with the upper and lower case letters of the Māori alphabet and asked to identify them by name, or by sound or by providing a word beginning with that letter. The maximum score possible is 33.

**Results**

Table 2: Average Scores for Te ātutu Reta for Year 2 Students in 80–100% Māori Immersion Literacy Programmes in 1995 and 2002–03

<table>
<thead>
<tr>
<th>Maximum score = 33</th>
<th>1995 sample</th>
<th>2002–03 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age band</td>
<td>6.0–6.5</td>
<td>6.6–7.0</td>
</tr>
<tr>
<td>Boy average</td>
<td>22.7</td>
<td>26.7</td>
</tr>
<tr>
<td>Girl average</td>
<td>22.8</td>
<td>28.8</td>
</tr>
<tr>
<td>Boy + girl average</td>
<td>22.8</td>
<td>27.8</td>
</tr>
</tbody>
</table>

**Analysis**

Data in Table 2 show that there are small increases in te ātutu reta scores from the 1995 sample to the 2002–03 sample for both age bands.

Within each sample, the older age band scored higher than the lower age band except for the 2003 sample of girls, where the average score remained virtually the same. Increases might be expected as a result of longer time spent in Māori immersion programmes. The scores for the 2003 sample of girls might be a result of scores approaching ceiling levels.

Differences based upon gender are minimal (boys and girls scores differ by no more than two items).

Average scores for students aged 6.6 to 7.0 years in 1995 and students in both age bands in 2002–03 are approaching ceiling levels. This is a possible explanation for the smaller increases in score recorded in 2002–03 and also means that this task would yield less useful information if administered to students older than 7.0 years.

**Te whakamātatautau kupu (word recognition)**

**Description of task**

The students are presented with one of three lists of high frequency Māori words and are asked to read them in turn. A response is marked correct if the students read each word immediately (that is, without hesitation and without attempting to decode the word). The maximum score possible is 15.
Results

Table 3: Average Scores for Te Whakamātautau Kupu for Year 2 Students in 80–100% Māori Immersion Literacy Programmes in 1995 and 2002–03

<table>
<thead>
<tr>
<th>Maximum score = 15</th>
<th>1995 sample</th>
<th>2002–03 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age band</td>
<td>6.0–6.5</td>
<td>6.6–7.0</td>
</tr>
<tr>
<td>Boy average</td>
<td>5.7</td>
<td>7.5</td>
</tr>
<tr>
<td>Girl average</td>
<td>5.2</td>
<td>8.9</td>
</tr>
<tr>
<td>Boy + girl average</td>
<td>5.5</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Analysis

Data in Table 3 show that there are increases in te whakamātautau kupu scores from the 1995 sample to the 2002–03 sample for both age bands.

Within each sample, the older age band scored higher than the lower age band as might be expected as a result of longer time spent in Māori immersion programmes.

Differences based upon gender are minimal (boys and girls scores differ by no more than two items).

On the basis of progress in the two samples (1995 and 2002–03), most of the students will have reached ceiling in the next six months. This means that this task would be less useful for measuring progress with students older than 7.6 years of age.

Te tuhi kupu (writing vocabulary)

Description of task

The students are given a maximum of 10 minutes (timed) to record all the Māori words they know how to write. Prompts are provided by the assessor to keep them generating words. Credit is given for every word spelt correctly. Approximations for words are not scored. The total score possible is only limited by the number the student is able to write in the time taken. There is no maximum score.

Results

Table 4: Average Scores for Te Tuhi Kupu for Year 2 Students in 80–100% Māori Immersion Literacy Programmes in 1995 and 2002–03

<table>
<thead>
<tr>
<th>No maximum</th>
<th>1995 sample</th>
<th>2002–03 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age band</td>
<td>6.0–6.5</td>
<td>6.6–7.0</td>
</tr>
<tr>
<td>Boy average</td>
<td>18.1</td>
<td>20.3</td>
</tr>
<tr>
<td>Girl average</td>
<td>16.0</td>
<td>27.7</td>
</tr>
<tr>
<td>Boy + girl average</td>
<td>17.1</td>
<td>24.0</td>
</tr>
</tbody>
</table>
Analysis
Data in Table 4 show increases in te tuhi kupu scores from the 1995 sample to the 2002–03 sample for both age bands.

Within each sample, the older age band scored higher than the lower age band as might be expected as a result of longer time spent in Māori immersion programmes.

Girls in the older age bands for both the 1995 and 2002–03 samples scored higher than boys of the same age in this task. Differences between boys and girls in the younger age band for both samples were minimal.

Results range from 1.7 words to 2.5 words written correctly per minute which might appear to be a low rate of recording. For this task, however, only correct spelling of the word counts. Students more often than not recorded more words than is reflected in the scores.

As the task has no maximum score, it can be used with students older than 7.0 years of age.

Whakarongo, tuhia ngā tangi o roto i ngā kupu (hearing and recording the sounds in words)

Description of task
One of five short passages of continuous Māori text is dictated to students who are required to record in writing what they hear. Credit is given for each sound recorded correctly. The maximum score is 41.

Results

<table>
<thead>
<tr>
<th>Maximum score = 41</th>
<th>1995 sample</th>
<th>2002–03 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age band</td>
<td>6.0–6.5</td>
<td>6.6–7.0</td>
</tr>
<tr>
<td>Boy average</td>
<td>26.6</td>
<td>26.1</td>
</tr>
<tr>
<td>Girl average</td>
<td>19.7</td>
<td>31.9</td>
</tr>
<tr>
<td>Boy + girl average</td>
<td>23.2</td>
<td>29.0</td>
</tr>
</tbody>
</table>

Analysis
Data in Table 5 show there are increases in the scores for whakarongo, tuhia ngā tangi o roto i ngā kupu from the 1995 sample to the 2002–03 sample for both age bands.

In the 1995 sample, boys aged 6.0 to 6.5 years scored slightly higher than boys aged 6.6 to 7.0 years. Within the remaining samples, the older age band scored higher than the lower age band. While there is no obvious explanation for the 1995 data for boys, the remaining data is as might be expected from longer time spent in Māori immersion programmes.

Differences based upon gender are minimal for boys and girls in the 2002–03 sample. The results for boys and girls in 1995 show a crossover effect (where boys aged 6.0 to 6.5 years scored higher than girls aged 6.0 to 6.5 years and then the reverse occurred where girls aged 6.6 to 7.0 scored higher than boys aged 6.6 to 7.0 in 2002–03). There is no obvious explanation for this phenomenon.

There is still scope to use this task with students older than 7.0 years of age.
**Ngā tikanga o te tuhi kōrero (concepts about print)**

**Description of task**

The assessor reads one of two stories to the students who are asked to identify or demonstrate their knowledge of conventions and concepts about print and for Māori texts. The maximum score possible is 24.

**Results**

<table>
<thead>
<tr>
<th>Maximum score = 24</th>
<th>1995 sample</th>
<th>2002–03 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.0–6.5</td>
<td>6.0–6.5</td>
</tr>
<tr>
<td>Boy average</td>
<td>11.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Girl average</td>
<td>12.3</td>
<td>13.1</td>
</tr>
<tr>
<td>Boy + girl average</td>
<td>11.8</td>
<td>12.4</td>
</tr>
</tbody>
</table>

**Analysis**

Data in Table 6 indicate that there are increases in ngā tikanga o te tuhi kōrero scores from the 1995 sample to the 2002–03 sample.

Within each sample, the older age band scored higher than the lower age band as might be expected as a result of longer time spent in Māori immersion programmes.

Differences based upon gender are minimal (boys and girls scores differ by no more than one item).

Ngā tikanga o te tuhi kōrero is a more complex task than the previous tasks as it taps a broader knowledge base. Any increases in score for ngā tikanga o te tuhi kōrero are therefore more substantive for this task. There is still scope to use this task with students older than 7.0 years of age to measure achievement as ceiling levels are not yet being consistently met.

**Ngā pūkete pānui haere (text reading)**

**Description of task**

This involves a student reading three texts, one each at an easy, an instructional and a difficult level. The error rate, accuracy percentage and self-correction rate are calculated from the student’s oral reading of each text. Errors and self corrections are analysed to determine what cues (meaning, knowledge of language structure, visual information) the student may have used or neglected.

**Results**

Reading levels in Māori as identified in Ngā Kete Kōrero research (1995) are denoted by kete⁹ (flax baskets). With increasing difficulty level, the materials used to ‘weave’ the kete change with each material denoting a different level. Letters are used along with the kete material to identify sublevel. Four levels, and twelve sublevels in total, have been identified in Ngā Kete Kōrero. Change in level is more substantive than change in sublevel. In order to be able to identify average levels achieved by students in each age band, and for the purposes of this analysis, each sublevel has been allocated a numerical value from 1 to 12.

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⁹ Refer to Berryman, Rau, and Glynn (2001) for a fuller description of the levelling system developed for Māori medium.
Table 7: Average Ngā Kete Kōrero Reading Instructional Levels Year 2 Students in 80–100% Māori Immersion Literacy Programmes in 1995 and 2002–03

<table>
<thead>
<tr>
<th>Maximum level = 12</th>
<th>1995 sample</th>
<th>2002–03 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age band</td>
<td>6.0–6.5</td>
<td>6.6–7.0</td>
</tr>
<tr>
<td>Boy average</td>
<td>4.4 KHi</td>
<td>4.9 KKa</td>
</tr>
<tr>
<td>Girl average</td>
<td>4.5 KHi/KKa</td>
<td>6.1 KKa</td>
</tr>
<tr>
<td>Boy plus girl average</td>
<td>4.5 KHi/KKa</td>
<td>5.5 KKa/KKe</td>
</tr>
</tbody>
</table>

Analysis

Data in Table 7 indicate little change in Ngā Kete Kōrero reading instructional sublevel or level from the 1995 sample to the 2002–03 sample for both age bands except for boys in 2003 whose reading instructional level differed from boys in 1995 by one sublevel.

Within each sample, the older age band achieved a higher reading instructional sublevel or level than the lower age band although differences for boys in 1995 and girls in 2002–03 was minimal (half a sublevel). Gains in reading instructional level might be expected as a result of longer time spent in Māori immersion programmes.

Differences based upon gender are minimal (boys and girls differ in reading instructional level by no more than one sublevel).

SUMMARY OF RESULTS

The results can be summarised as follows:

1. Students in the 2002–03 age band consistently scored better than students in 1995 across five of the six tasks. The only variation on this pattern occurred in one instance (out of a possible 24) when data were presented in order to make comparisons based on gender. In the sixth task (text reading), reading levels remained virtually the same for the two points in time.
2. Students in the older age bands consistently scored higher than the younger age band on all tasks for both the 1995 sample and the 2002–03 sample. Variations on this pattern occurred in only two instances (out of a possible 24) when data were presented in order to make comparisons based on gender.

3. Overall, there was little difference between the performance of boys and the performance of girls for both the 1995 and 2002–03 samples.

4. Certain tasks in He Mātai Mātātupu appear to carry more weight (that is, te tikanga o te tuhi kōrero, te tuhi kūpu and text reading) so changes in score for these tasks represent more substantial change.

5. For the older age band 6.6 to 7.0 years, scores were approaching ceiling levels for two of the six tasks (that is, te tāutu reta and te whakamātautau kūpu). The four remaining tasks could, however, be used to measure further progress beyond this age band.

DISCUSSION

Administering the standardised assessment procedure He Mātai Āta Titiro ki te Tūtukitanga Mātātupu, Pānui Tuhi (He Mātai Mātātupu) in 2002–03 to students in 80–100% total immersion Māori programmes has provided a unique opportunity to compare student performance with a comparable group of students from 1995.

The main purposes of this assessment are to observe the literacy achievement of students after at least one year of instruction, to identify those experiencing difficulty and to provide information about the classroom programme (Rau, 1998).

He Mātai Mātātupu assessment and professional development in its administration and use are yet to be made widely available to teachers in Māori medium. Some teachers are, however, either using earlier drafts of the assessment or various other versions of the procedure that they have sourced from someone else or developed themselves. These earlier versions do not provide normative information upon which teachers can evaluate student performance and base decisions about classroom instruction.

Teachers do, however, have limited access to components of He Mātai Mātātupu. The tikanga o te tuhi kōrero (concepts about print) assessment task was reproduced for the entry assessment Aromatawai-Urunga-ā-Kura in 1997 to be used with new entrant students. Pānui haere have also been developed for everyday classroom use from the pūkete pānui haere (text reading) assessment task. While draft copies of the assessment manual have been in circulation since 1999, the delivery and maintenance of professional development to teachers in this procedure has also tended to be piecemeal and sporadic.

Analysis of the data demonstrates that the average scores of students in the 2002–03 sample in the literacy activities measured by He Mātai Mātātupu are higher than those of students in the 1995 sample. Even more interesting is that boys are doing as well as girls on these tasks. This is in contrast to what has been historically reported about girls and boys across numerous literacy measures within English medium programmes in New Zealand.

It is quite possible that even higher differences in scores between the 1995 group of students and the 2002–03 group of students may have been achieved had teachers had access to the assessment procedure during the seven year period from 1995 when the first set of data were collected. Rau (1998) reports that the primary function of the assessment procedure is to assist teachers to learn about children’s literacy behaviour, identify children experiencing

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10 Limited access is the result of factors such as a shortage of skilled personnel who can either support teachers with administration or who can extend their use of the assessment beyond this initial stage. Pressure to effectively deliver programmes in all curriculum areas despite the fact that pedagogies for Māori medium are still only emerging and evolving also make it difficult for teachers and schools to make literacy a priority.

11 The manual is in press.
difficulties and provide appropriate support by targeting identified areas, as well as provide feedback about the effectiveness of the literacy programme (p. 13).

The results from the two data points serve as an external measure of the impact of literacy initiatives introduced to support Māori medium education during this seven year period. They also reflect burgeoning Māori language acquisition and development.

Reasons for the higher scores of students in 2002–03 compared to a 1995 group of students across nearly all tasks may be attributable to a range of factors including increased support for Māori medium programmes particularly since 1998. These include:

- the development and promulgation of Ngā Kete Kōrero framework, which organised reading material into increasing levels of difficulty. Teachers potentially are able to make better matches between material and learner need;
- the increased quantity and improved quality of reading instructional material available;
- the increased recognition and development of epistemology and pedagogy for Māori medium contexts by various individuals and organisations;
- the increased provision of Māori medium specific professional development in literacy for teachers;
- the inclusion of second language acquisition theory and practice in preservice teacher training and inservice teacher professional development; and
- the ongoing commitment and dedication of teachers who continue to strive toward improving curriculum delivery and raising Māori achievement in the face of extreme demands and often overwhelming expectations.

However, it is also possible to argue that the benefits of these initiatives may have been offset by the following factors.

- The introduction of linguistically challenging curriculum documents in Māori within a relatively short space of time (seven in five years) has made effective implementation difficult for Māori medium. Literacy is often competing with other curriculum areas for priority within schools.
- Literacy priorities identified for English medium education have tended to determine those for Māori medium education (Rau et al., 2001). Past and recent policies that promote parallel development therefore work (incorrectly) on the assumption that resulting initiatives are also addressing the most urgent priorities for Māori medium. This approach undermines Māori aspirations for self determination and threatens the development of Māori-derived epistemology and pedagogy. Māori medium specific designed responses are the preferred option.
- The mobility of teachers may be a factor. Statistics are yet to be gathered that report on the mobility of Māori medium teachers characterised by movement out of the teaching service itself, movement within the education service (but not to teaching positions), and transfer to other schools or to other year levels within a school. Educationalists working in the field, however, report high levels of mobility.12 If this is indeed the case, developing and maintaining a skilled and experienced workforce is a major challenge. Flow-on effects include lessened opportunity to optimise and consolidate developing professional knowledge and experience with various age and class levels.

12 The Woolf Fisher Research Centre (University of Auckland), when identifying teachers of Year 0 to Year 1 students in 80–100% Māori medium programmes to participate in a current research project (2002–03) for the Ministry of Education, found that the schools they targeted lost about one-third of their teaching staff in one year. Of course the extent to which this is typical of most Māori medium programmes across the country is yet to be established. (Personal communication, July 2003)
The increased demand for Māori medium teachers, due to a rapid increase in the number of schools offering Māori medium programmes, means demand for quality, experienced teachers who are also fluent speakers of Māori outstrips supply.

There are increasing demands for professional development in Māori medium-specific literacy with proportionally fewer professionals capable of or able to deliver the support required.

There is inconsistent provision and variations in the quality of professional development in second language acquisition theory and practice at the preservice training level and for teachers in service.

The provision of teacher professional development has tended to be short term, sporadic and piecemeal in nature, whereas, in fact, a considered, comprehensive long term approach to developing a skilled workforce for Māori medium is required.

CONCLUSION
This study has provided a snapshot of student achievement across time and place for immersion in Māori using an assessment that qualifies as an independent external measure of literacy acquisition and a measure of Māori language acquisition as a by-product of this investigation.

Māori medium educators are very aware of the pressures to duplicate the practices of English medium classrooms that characterise educational provision in New Zealand primary schools. The urge to resist such paternalistic overtures, however well intentioned, is strong.

Māori in general stream English medium education continue to rack up disturbing rates of underachievement as demonstrated by decades worth of student performance statistics. It is extremely unrealistic to expect that merely substituting the language of instruction from (L1) English to (L2) Māori while maintaining a pedagogy and epistemology designed specifically for the majority non-Māori group will result in significant improvements. As Māori have identified in their pursuit of self determination, they need to be able to control curriculum content and its delivery as well as define achievement on their own terms.

Likewise, while Māori medium education can gain valuable insight into plural language acquisition theory and practice from international literature, Māori medium educators would resist moves to arbitrarily duplicate effective overseas bilingual models. The preference again is to be able to develop and control processes and approaches that are more responsive to our unique linguistic, cultural, historical, political, social and economic context, in order to preserve, consolidate and further attempts to regenerate the Māori language.

In the words of Hirini Melbourne (1991), the well-respected Māori scholar and strong advocate for the revitalisation of the Māori language who passed away recently:

However, so long as Māori people seek to control their own destiny and assert the unique value of their own culture, the urge will remain strong to know and be nourished by the rich and complex inheritance that is Māoritanga. In the end, if Māori people wish to preserve that cultural difference, they will be obliged to take control of the linguistic tools by which they understand and define themselves as a people. That means turning to the Māori language itself as their preferred mode of written as well as spoken expression. (p 140)
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A Snapshot of Literacy Achievement in Māori Immersion Programmes


Partnerships at the Interface: Classroom, Whānau and Community-based Language and Learning, for Linguistically and Culturally Diverse Learners

Jannie van Hees is project director of the Oracy Literacy Learning Initiative – English Language Assistants Professional Development, Contracts Management Services, Auckland College of Education.
Partnerships at the Interface: Classroom, Whānau and Community-based Language and Learning, for Linguistically and Culturally Diverse Learners

Jannie van Hees

Abstract

This paper canvasses the key notions, principles, programmes and practices in relation to language acquisition and learning of students from language backgrounds other than English, with particular emphasis on how schools can work collaboratively with families and the community. It discusses the interface between families and schooling for the dual culture, bilingual child and examines five critical principles for achieving quality outcomes for bilingual learners in mainstream, English-medium classrooms. The observations are based on the author’s practice-based research derived from extensive work with the educators and families of young bilingual learners.

INTRODUCTION

The Research Division of the Ministry of Education has identified language acquisition as a key area of need for further research. In particular it singles out language acquisition in regards to bilingual and immersion education as of great importance.

‘Bilingual education’ and ‘immersion education’ can be variously described and defined (e.g. Baker, 1993, 2001; Cummins, 1976, 1981, 1983, 1992; Spolsky, 1989), depending on one’s perspectives, and the learners and families in mind. For the purposes of this paper, both terms are being considered in relationship to learners from language backgrounds other than English, who have linguistic and cultural duality or pluralism, and who learn in mainstream primary classrooms where English is the dominant or only language of instruction and curriculum learning.

For the vast majority of such learners, bilingual and immersion education is almost always ‘immersion education’, in that they are expected to learn and be able to operate in the classroom, largely or totally in and through English. ‘Bilingual education’, minimally defined or described as learning and operating in and through two languages in the classroom, is unlikely to be their reality. At best, there is affirmation and active encouragement of their language/s other than English within and outside classroom contexts; at least, there is little more than a cursory acknowledgement that they may understand or use a language other than English.

Effective language acquisition and learning for primary school learners from diverse linguistic and cultural backgrounds is a complex and challenging issue. It poses many questions in relationship to such learners across all the year levels of primary school. That bilingual learners are children with cultural and linguistic ‘wealth’ is a given. Each child in his or her unique way is ‘gifted’ and able. Those most directly involved in the education of bilingual children must accept the responsibility and challenge to nurture and develop this bilingual wealth. Unfortunately, mainstream English medium classrooms are places where bilingual learners can be, and often are, positioned so that their potential is not fully developed, as much by what is made available as by what is not.

Ultimately, it is a question of ‘cultural capital’ (Grenfell & Kelly, 1999), a term used to refer to the ‘storehouse of experiences, knowledge and attitudes’ one has and holds (McNaughton, 2002, p. 21). While the family and child relationship ‘naturalises’ and potentially optimises shared experiences, knowledge and attitudes, the classroom is an ‘unnatural’ setting which often does not. If classroom practices and attitudes fail to capitalise on what the
bilingual child (and by implication the family) bring to the classroom, and to open up and share new worlds and understandings, then the cultural capital of the power holder – in this case the classroom teacher – overrides that of the child.

In English-medium classrooms, English, as the main vehicle through which experiences, knowledge and attitudes are conveyed, must be shaped strategically, explicitly and sensitively, with an overriding commitment to connecting and sharing what might otherwise remain implicit, hidden, or assumed. This challenges the classroom teacher’s ‘taken for granted’ philosophies, pedagogies and practices of English language development and availability. It suggests the need to re-examine these in light of developing the potential of the bilingual learner. While on the one hand the bilingual child is ‘like all learners’, on the other he or she is not. Capitalising on and acknowledging this might mean ‘more of the same won’t do’, if this is not likely to enhance learning. It is likely to mean English language at times should be made available in ways that are different to a child for whom English is a first and home language.

A number of recent Ministry of Education research reports and publications are of direct relevance to the discussion of language acquisition and bilingual learners. These include two research studies, *Improving English Language Outcomes for Students Receiving ESOL Services in New Zealand Schools, with a Particular Focus on New Migrants* (Franken & McCormack, 2001) and *Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis* (Alton-Lee, 2003), and the Ministry of Education’s *Effective Literacy Practice in Years 1–4* (2003). In addition, two landmark texts, *Meeting of the Minds* (McNaughton, 2002), and *By Different Paths To Common Outcomes* (Clay, 1998), both make valuable contributions to the discussion. This paper refers to these and other texts in the field.

Key notions, principles, programmes and practices in relation to the language acquisition and learning of students from language backgrounds other than English receive varying degrees of attention from researchers, writers and practitioners in the New Zealand context. Those canvassed in this paper, by no means exclusive, have been identified as of great relevance to the short and long-term outcomes of young bilingual learners in mainstream, English-medium education. The observations and propositions in this paper are based on practice-based evidence derived from extensive work with the educators and families of young bilingual learners. The paper draws on research-based evidence primarily from the disciplines of first and second language acquisition, applied linguistics, psycholinguistics, sociolinguistics, and bilingualism.

It is hoped the perspectives add to the conversation by prompting us to reconsider how we might improve or change our practices and attitudes in order to achieve quality outcomes for bilingual learners in mainstream English-medium classrooms.

**SETTING THE SCENE**

**The Interface**

Language acquisition and learning is an active, dynamic process, culturally and contextually bound. Children acquire and learn in, through and about language in unique ways from three main sources and environments – as participants within wider society, as part of community and family interactions, and as students in the formal schooling system. Observation and research points clearly to the fact that family and schooling are the greatest influence on the development of a young child, behaviourally, cognitively, linguistically and attitudinally. Optimising the interface between family and schooling, particularly as related to learning and language acquisition, is essential.

The ‘continuity’ approach is described as enhancing this interface: ‘Teaching and learning at school can be made more effective by enhancing the continuity between how things are done at school and how things are done in the child’s family and social settings’ (McNaughton, 2002, p. 20).
To truly develop the child it must embrace involvement and inclusion in a total sense: ‘My place is your place. Your wealth is my wealth’ and ‘Nau te rourou, naku te rourou ka ora te iwi (With your food basket and my food basket, everyone will have enough)’.

The child, in this case the dual culture, bilingual child who is at the heart of the interface between the family and school, is central to this discussion. Language itself can act to depersonalise and seemingly simplify what is a socially complex process of human interactions. What is required is collaboration, shared understandings, mutual respect, identification of how each participant’s role is and can be complementary and supplementary to the other, and a commitment to ‘make it happen’. Research-based evidence, and particularly the writer’s own practice-based evidence, suggests that effective ways of working with families and educators in schools are both realisable and essential.

Fullan (in Sparks, 2003, p. 1) notes that ‘the single factor common to successful changes in [making progress in literacy] is that relationships improve. If relationships improve, schools get better’, developing ‘well-executed professional communities’ and ‘resulting in student learning outcomes…. Educational change is technically simple and socially complex [in order] to get ownership, participation and a sense of meaning…through interaction, developing people and paying attention to student learning’.

A shared educational culture with families and teachers in partnership establishes a genuine relationship of mutual trust and cooperation, so that exploring practical, concrete, tangible ways to attain common educational desires and goals together is neither threatening to, nor dominated by, one or other in the partnership.

Unquestionably, the overriding majority of families desire success at school for their children, and want to contribute to this outcome where possible. Education, for example, features in the top five reasons for people immigrating to New Zealand. It is no less so for almost all New Zealand families. Many families, however, feel unsure or unable to contribute to best effect. The interface between family and community members, school community members, teachers, and the child can be enhanced so that all participants gain and there is growth and empowerment for all (van Hees, 1991).

Duality in Language and Culture: An Overview

The linguistic and cultural dualism or pluralism evident in New Zealand primary schools is increasingly marked and diverse. Immigration figures alone reflect this diversification. In 2001–02, people approved for residency immigrated from many parts or regions of the world where English is not a first or national language – North East Asia (22% of total figure), Southern Asia (16%), Middle East and Africa (15%), the Pacific (14%), the Americas (3%), as well as some immigrants from Europe. As a result, New Zealand is a dynamic mix of ethnicities, languages and cultures. According to the 2001 census figures, close to 20% of New Zealand residents were born overseas and of these some 70% come from countries where English is not a first or national language.

New Zealand’s increasing diversity is a result of historical and contemporary immigration trends and flows, particularly over the last one hundred years, and natural population growth in ethnic groups. Nationwide this diversification is unevenly distributed across regions and within regions. However, what is clear is that probably almost every community in New Zealand is ethnically, linguistically and culturally diverse to a greater or lesser degree.

As the population diversifies, it directly and indirectly affects all aspects of society and governance, including education. A very limited informal survey of Years 1 and 2 students in eight Auckland primary schools in August 2003 reflects this increasing diversity. Royal Oak Primary School, Epsom, for example, identifies 21 ethnic groupings. The ethnic composition of schools, as shown by Ministry of Education northern region data for July 2002 (West, 2003) consists of 18.2% Mäori, 16.8% Pasifika, and 15.2% other ethnicities. Future projections suggest that the numbers of students from language backgrounds other than English is likely to increase significantly over the next
10 to 30 years. Presently, approximately 3.2% of the student population is ESOL funded, with by far the largest proportion of these students in primary schools.

Many schools in some districts of Auckland, and other New Zealand communities, comprise almost totally Pasifika and indigenous Māori learners, while others have a large concentration of learners from Asia. More typically, schools across Auckland and New Zealand have a more diverse mix. Primary school dual language, dual culture learners range across a continuum of English and first language/s competencies and experiences, from those born in New Zealand and who are second or third generation immigrants, as in the case of many Pasifika children, to others born overseas who have had varying periods of time living in New Zealand. To add to the mix, an increasing number of school populations include refugee students, international students and general category immigrants.

This diversity makes more complex any consideration of pathways and choices of provision made for or by learners from language backgrounds other than English, namely dual language, dual culture learners. According to Ellis (1998), the external view – for example, curricular goals, materials, activities, methods, organisational decisions, and assessment/testing procedures – is what teachers ‘do’ and largely adopt; the internal view is the construction of interactional events and processes so that learners actually learn and progress.

Bilingual children’s development in a dual language, dual cultural environment is a complex and relatively under-researched area of literacy development. Each child’s own and home bilingualism/biculturalism is unique; there is no ‘one-size fits all’ conclusions that can be made about their cognitive, linguistic and conceptual realities. By virtue of the duality of their language backgrounds, bilingual children bring a special cognitive and linguistic breadth and depth to their school learning, both advantaging and disadvantaging them.

Tabors and Snow (2002) describe this complex landscape, using a Puerto Rican neighbourhood of New York as an example. Six major patterns of language use in the home were identified: families in which (i) adult to adult, the first language (L1) was predominantly spoken, while both L1 and English was used with the children; (ii) both L1 and English was spoken by adults to adults and children, but the children responded in English; (iii) the adults used L1 to each other, the male spoke L1 to the children, and the mother used L1 and English; (iv) only L1 was spoken; (v) as single parents, only L1 was spoken to the child, with the child using L1 and English in response; (vi) varieties of L1 was used across families.

Language development of a bilingual child, especially in the early years of schooling, is such that even in the seemingly ideal situation of developing emerging literacy in his or her strongest oral language, that is, the language of majority use in the home and by family, may be impossible or relatively unsuccessful (Tabors, Aceves, Bartolome, Paez, & Wolf, 2000). While recognising that dual language, dual culture learners in mainstream English medium education are in their own unique ways amazingly successful, the reality is also that a large majority of these children are ‘below average’ in English vocabulary, and considerably limited in their breadth and depth of English word knowledge and experience (New Zealand Council for Educational Research, 2001).

CRITICAL NOTIONS AND PRINCIPLES

The notions and principles examined in the following section overlap and are inter-dependent. Using a narrowly focused lens on this world of dual language, dual culture learners and learning in mainstream English medium primary classrooms, the writer has identified five notions, principles and issues which seem the most significant based on extensive work in the field over the last decade or more, especially in Auckland primary schools.

1 Competencies described in terms of bilingualism: A passive bilingual is a person who is a native speaker in one and is capable of understanding but not speaking another language; a dominant bilingual is a person who is more proficient in one of the two languages (in most cases ‘native-like’); a balanced bilingual is someone more or less equally proficient in both languages, but who will not necessarily pass for a native speaker in both languages; and an equilingual is somebody who passes in any situation in both languages for a native speaker, i.e. he or she is indistinguishable from a ‘native’ speaker.
These are:

- expanding the understanding of cultural and linguistic duality;
- making teaching and learning connections;
- controlling words;
- the concept of input–output; and
- crafting a fuller repertoire of oral language.

The following discussion looks briefly at key ideas pertaining to the first three of these issues and then focuses in more depth on the final two.

Three further aspects – scaffolding, apprenticeship, and co-construction; broadening perspectives on reading and duality; and apprenticing writing in English – are also relevant, but are outside the scope of the discussion in this paper.

Expanding the Understanding of Cultural and Linguistic Duality

While there is much that could be said in relationship to cultural and linguistic dualism, the ‘heart and soul’ of people from language backgrounds other than English, the comments here are confined to a discussion of (a) the need for greater knowledge and understanding of the issues by all members of the school community, and (b) the way greater knowledge and understanding brings attitudinal change.

Need for greater knowledge and understanding

In general, teachers in mainstream education in New Zealand are aware of and comfortable with the increasing diversity of New Zealand society, in particular in their local community. There is generally a positive acceptance of this reality, and in many schools a genuine effort to embrace it with celebration. However, it is equally true that much of what is done by schools in recognition of their diverse communities, while important, needs to be deepened and expanded.

Bilingualism and cultural dualism is generally poorly understood by teachers and school staff, families and learners. Whether people are from a language background other than English or not, there is a general lack of theoretical and practical understanding. People of dual culture, dual language backgrounds are often much more sensitised and ‘passionate’ about bilingualism and diversity than their monolingual counterparts, yet they too often lack the accompanying theoretical and research-based evidence to substantiate their experiential insights and understandings.

Those from English backgrounds who have been involved with diverse communities at a personal level tend also to be more highly sensitised and insightful. Nonetheless, unless understandings and perspectives of all are deepened, those most closely involved in the education and development of learners from language backgrounds other than English will not do full justice to them.

Implications and issues

There are several implications and issues arising from this.

1. Teachers and school staff need in-depth theoretical and practical knowledge of bilingualism and cultural dualism, without which they cannot effectively develop an inclusive school community. Connecting to, understanding, supporting and sharing effectively with their families from language backgrounds other than English is thus less
likely without this knowledge. Nurturing the wealth of dualism in their learners is less likely. Implementing an inclusive curriculum is less likely.

2. Families from language backgrounds other than English are often confused and uninformed about bilingualism and cultural dualism. Because of this, consciously or unconsciously, many make poor family choices about bilingualism in particular, thus limiting the sharing of their own cultural capital. Often the implicit and explicit message to their children is that ‘English matters most’.

3. Children, often more than any other group the most comfortable with and inclusive of diversity, can and should understand more about their own and others’ bilingualism and cultural dualism. This can enhance their self-acceptance and self-fulfillment, and enable them more consciously to connect their dualism to new learning and contexts, a particularly powerful learning tool and strategy.

4. For children from English-speaking backgrounds, unless we help to expand their horizons in a conscious sense about bilingualism and cultural dualism, they, the school community, and New Zealand society at large stand to lose. While young people’s attitudes give one a real sense of hope that cultural and linguistic pluralism in New Zealand will be ‘normalised’ and celebrated more fully over the next 20 to 30 years, one cannot be confident or complacent about this.

**Practical suggestions**

Strategies for improving the knowledge and understanding of all members of the school community might include:

- a requirement that each school’s strategic plan shows evidence of undertakings and actions in cultural and linguistic competency education. It might also be that actions and outcomes are made more public;

- a more thorough examination by the Education Review Office and other evaluative bodies that the school is an inclusive community for diversity;

- a greater number of resources being made available to staff and school communities in the form of visiting speakers, as well as visual and print materials. Up-to-date, appropriate resources are still quite limited, and what is available, is often under-utilised; and

- an undertaking that schools more proactively and systematically share with families the joys and tensions of bilingualism and cultural dualism, through person-to-person contact; group/families meetings; programmes such as the Home–School Partnership programme; displays; informational handouts such as the *Bilingual Snippets*; and bilingual support materials for use at home, such as readers in other languages or taped texts such as those developed by van Hees.²

**Greater knowledge brings attitudinal change**

When there is a more informed knowledge base, there is a higher likelihood of a positive attitudinal change. When relationships improve, experiences and outcomes improve and are enhanced, as noted by Fullan (in Sparks, 2003).

**Future research**

Future research might explore the following questions:

1. What are schools’ current undertakings and actions in cultural and linguistic competency education? Are teachers and school staff well-informed, and are their actions adequate?

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² A number of programmes, approaches and resources related to developing cultural understandings and competencies and bilingualism have been developed by van Hees – e.g. van Hees, 1994a, 1994b, 1994c, 1994–2003, 1996, 1999a, 1999b.
2. What do educators involved in primary education consider to be key areas of need in relationship to the increasing diversity of school communities?

3. What have schools found most effective in developing a culturally inclusive school community?

4. What do evaluative bodies such as the Education Review Office use as a measure of cultural competency and inclusiveness? How informed and substantiated is this? What improvements could be made? Are there other bodies which might take an active role in this regard?

5. What do school students and their families know and understand about bilingualism? What attitudinal trends are evident? How can this information be used to develop positive and expanding cultural and linguistic dualism and pluralism?

6. What are home, family and community practices as related to dual or multi-language use? To what extent do families from particular cultural, ethnic and language groups share their cultural capital with their children? What are pervading attitudes and perspectives?

Making Teaching and Learning Connections

Integral to the cultural and language duality are the connections learners make during English-medium curriculum teaching and learning. ‘Connection’, as interpreted here, refers particularly to metacognitive awareness, awareness and use of strategies, and the learner’s ability and opportunities to link his or her own particular thinking, perspectives and experiences to the contexts and texts of the classroom.

There is a considerable body of literature, and research-based/practice-based evidence pertaining to metacognition, cognition and language connection, classroom interactions and discourse, the cultural capital of classroom pedagogies, cultural transmission practices, speech activity and so on (e.g. Wittgenstein, 1953; Bourdieu, 1979; Wells, 1986; Gardner, 1983; Bruner, 1990). Psycho/socio-cultural theory (e.g. Leont’ev, 1981; Wertsch, 1985, 1991; Frawley, 1997; Harre & Gillett, 1994; Lantolf & Appel, 1994) emphasises that ‘mind is a sociotextual process’ (Frawley, 1987, cited in Roebuck, 2000, p. 18); and that consciousness implies language (or symbolic) use, process and activity in a social space, a co-constructed, ecological relationship, and a uniting of mind and social contexts, linking one’s intermental and intramental realities (Vygotsky, 1978).

The Ministry of Education report Effective Literacy Practices in Years 1–4 (2003, pp. 76–77) suggests instructional strategies which engage, connect and focus learners throughout teaching and learning sequences. They include helping the students to understand the learning goals; building shared learning goals; showing students how to activate prior knowledge; helping students make links between their own thinking and perspectives and what they are currently learning; monitoring students’ connections; developing strategies to transfer learning across contexts; and encouraging students to evaluate and reflect critically.

These fundamentals for higher order applied learning are necessary for all learners. With learners from language backgrounds other than English, making such connections is made more complex by virtue of their language and cultural dualism. The teacher needs to be aware that conscious metacognitive strategies may take considerable time and effort to develop with these learners, possibly because of language misunderstandings, as well as differences in ways of thinking about teaching and learning. Experience in, or knowledge about, other educational systems alerts one to differences in pedagogies and practices across cultures and contexts.

3 Intramental ability exists within the child while intermental ability occurs in the relationship between people.
In current work the author is undertaking in schools with high numbers of learners from language backgrounds other than English, being very explicit about the ‘whys and hows’ of learning, and discussing similarities and differences that exist between own and other frameworks is proving to be extremely powerful. The rich outside-school experiences and knowledges of the learners are being explicitly triggered and validated throughout learning contexts.

Teachers quite often need to explicitly mention possible contexts which reflect the learners’ outside-school cultural and linguistic worlds. It includes referring learners back to their families to explain and elaborate more from their perspectives, conceptually and linguistically, and in turn incorporating these back into the classroom context.

The more teachers are sensitive to this, and the greater their insights into and knowledge of other cultures and languages, the less likely is it that their cultural capital will prevail and dominate in the classroom. An example is Wiri Central Primary School, where the majority of students come from home backgrounds other than English. A major drive and focus of the school over the past two years has been to maximise meaning-making. This has taken many forms, including:

- encouraging learners and families to develop a growing understanding about brain and cognition; they are ‘thinking about the brain and thinking’ and are encouraged to articulate this;

- ensuring there are lots of partner ‘buzz’ moments, whereby learners share their ideas, concepts and ways of doing or thinking related to the classroom context in hand, followed by collective sharing and discussion to make explicit connections to new or current ideas and concepts. Teachers are participants, as well as facilitators;

- involving families in topic or context-based tasks and activities at home, as well as at school;

- ensuring that learners clearly know why and what they are learning, and its relevance, importance and transferability; this has meant emphasising that their learning is not first and foremost ‘for the teacher’, which previously has dominated their attitude, involvement and production;

- holding discussions with families at parent interviews, and in group meetings, about the brain, thinking, contextual connectedness and what they can do at home to further nurture this;

- using an increased number of visuals to prompt the learners’ inner imaging;

- having teachers model and share ‘thinking about learning’ through frequent use of ‘think alouds’;

- nurturing students and including reflection and critical analysis through a variety of approaches, including unpacking texts and products; using the three-level guide approach with visual, oral and print texts, whereby the students are encouraged to be able to justify, with more and more specificity, their reasoning and understandings, based both on the text in hand and their own knowledge and experiences; and

- involving teachers in reflective circles, where they examine their in-class meaning-making practices.

Teachers and families have noticed an exponential growth in the children’s confidence and participation in and enthusiasm for learning; language use and ability to express thinking, concepts and knowledge; conceptual expansion; excitement and pride in self and family; understanding that learning is for learning, rather than for the teacher; awareness and interest in worlds beyond theirs; confidence and effectiveness as critical thinkers; and keenness to share. In short, there is an overall improvement in all areas, behaviourally and in language development.

The staff, by identifying maximising ‘meaning-making’ as a key issue, have sought to expand their own horizons, and challenge themselves and their practices. They have undertaken professional development (with this author) to
support this process. They have a raised awareness of the cultural capital of the classroom and the necessity for the school culture to reflect all participants. There is an attitude and culture of positivity, collaboration and inclusion, and a deep belief and trust in learners and families. They are comfortable with discomfort and challenge, and excited that hard work by all is achieving results. Wiri Central Primary School is an example of a school making connections with and through its learners and community. Other schools which have also undertaken similar work are reaping similar results.

A study of reading and metacognition in primary classrooms in Northern Ireland (Hall, Myers, & Bowman, 1999) examined the extent and effects of explicit learning strategies in reading. The pedagogical practice examples cited are ones familiar to most teachers: for example, previewing materials; activating the learners’ current knowledge and perspectives; determining text characteristics; determining a text and reading purpose; generating questions; predicting and verifying these questions; clarifying, identifying and discussing comprehension breakdowns and misconceptions; paraphrasing, rereading, skimming and summarising; and relating to own and others’ knowledge and perspectives throughout.

The researchers note the teachers did not make these processes explicit, but that they emphasised the ‘doing’ of reading rather than helping learners understand and reflect on such practices as a means to improve their reading effectiveness. Especially significant in the study was the finding that teachers responded differently to learners based on their perception of learner ability. The so-called ‘less able’ readers were more likely to be engaged in more mechanical decontextualised aspects of reading than their ‘more able’ counterparts, who were more likely to be engaged in higher level thinking and discussion.

The study found non-metacognitive practices were predominant in all 12 classrooms studied, with the children responding to teacher-led questions the majority of the time. Even in classrooms where there was a higher incidence of metacognitive practices, the total time taken for this was low. The researchers note: ‘The legacy of behaviourism was evident…. Teachers who facilitated moderate levels of metacognition and connectedness, saw themselves as the main source of promoting their children’s learning’ (Hall et al., 1999, p. 323). Teachers were more inclined to see reading as external to the learner; meaning-getting rather than meaning-making as an intramental cognitive act. The researchers conclude that if teachers were more learning process-oriented than task-oriented, there would be greater convergence between theory and effective practice. By implication, one could add, if teachers were explicit in involving learners as learning processors and meaning-makers, there would be greater convergence and interaction between the learner contexts, in and outside school, and the curriculum selected contexts.

**Implications and issues**

Making teaching and learning connections has several implications:

1. While there is an increasing awareness by teachers of the importance and role of learner engagement and connection, in line with the above study, the writer’s school-based informal evidence also suggests that overall there is a lack of continuous explicit attention to this. Triggering learner connection is more likely when working with individuals or a small group than in whole class situations. There is a general tendency to use question and answer and ‘hands up’ approaches, where the teacher is dominant. Learner participation and contribution is often very limited, the most vocal learners being those who are most confident, while those less so remain silent, reluctant to participate.

2. When the majority or all of the learners in a class are from language backgrounds other than English, explicit attention to maximising learner engagement is clearly important, as the Wiri Central Primary School case study illustrates. Without such an emphasis, much else will be less effective as a result.
3. Parents and families at Wiri Central Primary School, and in other case study schools, are immensely interested in the changes they are observing in their children as they grow and learn in this way. Families are excited to be involved, and want to understand and contribute. Through the process, they too feel empowered.

4. It takes time, effort and, for many, changes in attitudes and practice. For teachers it needs to become a ‘constant’, a continuous mindset and area of conscious attention. Modelling, professional development, discussions, professional reading, expansion of perspectives, explicitness and a whole school commitment towards becoming more effective in this are all part of the way forward. While statements in print are important, it is creating the actual reality that is the challenge. The bottom line is that unless this occurs, learners from diverse cultural and linguistic backgrounds, and their families, are to a greater or lesser extent ‘disabled’. As a result, effective and powerful learner and learning outcomes are less likely.

**Future research**

Future research might explore the following questions.

1. What short and long-term learner and learning effects are evident when there is maximised connection as described in the Wiri Central Primary School case study?

2. How evident are such practices across schools with learners from language backgrounds other than English? What are other practices? How effective are they and why?

3. What are teacher understandings about pedagogical cultural and linguistic inclusion? How could this best be progressed?

4. What and where are effective models and how can these be shared more widely?

5. Are the results of the Hall et al. study also reflective of New Zealand classrooms with dual language, dual culture learners? What effects does this duality have on the metacognitive practices used by teachers?

6. What further ways could families better participate in the development of an inclusive curriculum? What are families’ perspectives on this? What effects might increased family involvement have on learning outcomes for learners from language backgrounds other than English?

**Controlling Words**

Vocabulary knowledge and effectiveness is integral to oral and written text competency. It is central to pragmatic, semantic and syntactical grammatical effectiveness. Put plainly, words are the ‘bricks and mortar’ of text.

The vocabulary repertoire and knowledge of a dual language, dual culture learner is a complex matrix of L1, L2 and interlanguage vocabulary items and meanings. So complex and unique to each learner is it, that theorists, researchers and practitioners can only propose possible models that might serve to explain these complexities. Suffice to say that the bilingual learner is on the one hand ‘word rich’ because of his or her duality, but on the other ‘constrained’ and ‘word limited’, to a lesser or greater extent. This is a recognisable fact for any of us who are bilingual or multilingual. Unquestionably, among the many challenges of learning a new or additional language is the need and desire to know and use words appropriately to convey one’s meaning in that language.

Language is culturally defined, and so transferability of vocabulary from one’s L1 to an L2, and vice versa, is no simple matter. To what degree a bilingual person transfers and moves between languages is impossible to know; it is a unique and complex cognitive and linguistic act. One might conclude there is no completely satisfactory explanation of bilingualism.
Learners from language backgrounds other than English who are learning in English-medium mainstream classrooms, while needing to operate in and through English, are almost always ‘betwixt and between’ (see van Hees & Evans, 2002). In relationship to English vocabulary, strategic or more metacognitively active and aware learners maximise their experiential, conceptual and linguistic resources from L1 and L2 to make meaning of and with words as effectively and fluently as possible. Less metacognitively active and aware learners or passive learners may spend much of their time in class puzzled or in a blank space, the cumulative and incremental effect of which might be immediate and long-term under-potentialisation.

Graves and Watts-Taffe (2002) note that findings from more than one hundred years of vocabulary research show the following: vocabulary knowledge is one of the best predictors of verbal ability (e.g. Sternberg, 1987; Terman, 1916); vocabulary difficulty strongly influences the readability (and comprehensibility) of text (e.g. Klare, 1984); growing up in poverty can seriously restrict the vocabulary children learn before beginning school, and makes attaining an adequate vocabulary a challenging task (e.g. Hart & Risley, 1995); ‘disadvantaged’ (and bilingual) students are likely to have substantially smaller vocabulary than their more ‘advantaged’ (or monolingual) classmates (e.g. White, Graves, & Slater, 1990); and lack of vocabulary can be a crucial factor underlying the school failure of disadvantaged (and bilingual) students (e.g. Becker, 1997).

Vocabulary control, or lack of it, in English-medium classrooms pertains as much to the bilingual learner him or herself, as to the teacher. Both participants in classroom discourse must know and have manageable access to what matters in English vocabulary acquisition and learning. Practitioners not only need extensive knowledge about English vocabulary in a grammatical sense, but most importantly need to use this to inform how vocabulary knowledge is developed and made available to and for learners – an ‘enabling’ process and outcome. Bilingual learners, too, can and should know about English vocabulary in a grammatical sense, and be active in their journey of becoming proficient in word use.

Nation (2001) has written extensively on vocabulary learning in relationship to English second language learners. Some key understandings in relationship to this discussion are identified below:

* Analysis of the running words of typical academic English text shows that approximately:
  - 82.5% of the text is within the first 2,000 word families (generally known as high frequency vocabulary);
  - 8.7%, including specialist/technical vocabulary, is academic vocabulary; and
  - 8.8% is ‘other vocabulary’ (‘academic’ and ‘other’ are generally known as low frequency vocabulary).

* In an academic corpus of 3,500,000 running words, 71.4% are the first 1,000 words, 4.7% are in the second 1,000 words, and up to 10% are academic words, a list of approximately 570 words.

This research information alone holds immense importance for a learner of English from a language background other than English. Their ability to comprehend text is dependent on their efficient processing of high frequency vocabulary, and the breadth and depth of their low frequency vocabulary. They lack the advantage of years of accumulated development and knowledge compared to their monolingual English speaking peers. Pedagogical decisions and approaches that maximise the effective development of English vocabulary for L2 English learners needs to be informed, explicit, and in important ways, strategically different to that of a native speaker. This is perhaps best exemplified by using Mayfield Primary School as a case study. The school’s students and families are either from Pasifika or Māori language and cultural backgrounds, learning in English-medium classrooms.

The realisation that ‘there may not be agreement in a school about whether children regularly should learn words, and how their learning should be assessed’ (Snowball & Bolton, 1999, p. 1) triggered the Mayfield staff to undertake
a review of vocabulary learning, and to try to develop a well-informed, manageable, consistent and well-planned programme school-wide, based on sound principles and perspectives. It focused on the larger, more encompassing language goals of developing learners as oracy and literacy-strong speakers, readers and writers. It aimed to develop them as strategists, able to utilise metacognitive processes and strategies as part of their overall and specific learning.

The result is the development and implementation of the Mayfield Word Learning Protocol and Programme. It details, across year levels, the key components of vocabulary development, including explicit attention to:

- the efficient mastery of high frequency vocabulary;
- the inclusion of low frequency words, including what to select, how many to include, when and how, dependent on year level and learner stages of development and readiness. (Note that the low frequency vocabulary items are mostly derived from, or are part of, topic and curriculum-based contexts and texts. In the primary school setting, and especially for young learners and new learners of English, even the first 1,000 and second 2,000 high frequency words could be thought of as ‘low’ frequency);
- the effective learning of low frequency vocabulary, especially for deep level processing for applied meaning, with an emphasis on learners not only being able to comprehend these deeply but being able to explain and express their meanings and understandings. This includes approaches and strategies to learn low frequency words for form, meaning and use;
- the development of phonological awareness and knowledge and strategies;
- the study of knowledge and use of word parts, especially those pertaining to low frequency vocabulary. This includes:
  - the study of word stems and word families (knowledge of prefixes and suffixes and word stems and families is particularly helpful and important in understanding and guessing meaning of words in text);
  - the study of word stems and word families as part of explicit practices in topic studies vocabulary methodologies, and in literacy development teaching;
  - the study of affixes, the largest number of which are Greco-Latin in origin. Attention to these follows a sequential pathway related to frequency of occurrence and use;
- the identified ways of assessing progress and gain by learners, teachers and families; and
- the involvement of families.

The Mayfield Word Learning Protocol and Programme also covers the development of:

- an understanding of the ‘Matthew Effect’; that is, the more words one accumulates, the more one can understand and expand one’s vocabulary base and comprehension more easily and rapidly;
- a positive attitude to collecting and understanding low frequency words for example, stimulating an interest in and an excited attitude towards word enrichment; learners tracking their own gains; goal setting for further vocabulary growth; stimulating a desire to share with and collect from others; and experiencing and sharing the joy and effect of gain;
- key strategies that assist and support word understanding and learning. Examples include using surrounding (print) text to help make informed guesses; reading on and backtracking; identifying the underlying meaning of
words in the same and connecting word families; consciously calling on one’s own current knowledge and understanding of the context and topic; knowing and selecting effective ways to learn and remember words, such as using rings of vocabulary cards; using L1–L2 translation and bilingual dictionaries; keeping a word notebook with words collocated under topics, sub-topics or categories; asking a speaker to explain or repeat; and associating and triggering an image with the word.

All these key components are transferable across texts and contexts. It ‘enables’ the learner, both in class and in other formal learning situations and beyond, independent of being taught. How fast and how much is unique to each learner, but with these strategies and key understandings in place, learning, comprehending and expanding one’s low frequency word repertoire in particular can take its own course.

Nation (2001, pp. 382–394), discusses the design of the vocabulary component of a language programme. The design must:

- establish and justify a set of guiding principles;
- identify goals of the programme;
- analyse the environment involved in the teaching and learning situation;
- provide a needs analysis of the learners;
- pay clear and careful attention to content choice and sequencing;
- develop details for the format and presentation of the course or programme; and
- monitor and assess learner progress, the quality of the learning and overall effectiveness.

The Mayfield programme includes attention to all these core components. It is complemented by well-embedded cross-curricula practices, in the context of ‘a rich “semiotic budget” and situated learning…and guided participation, apprenticeship, and participatory appropriation’ (van Lier, 2000, p. 253). Similarly, other Ministry of Education supported programmes, such as the Home–School Partnership Programme, the English Language Assistants Professional Development Programme, or a baseline English programme (such as the baseline English programme developed by van Hees, 1994c), are all complementary arms to the overall programme.

Word learning is complex, incremental and cumulative. Research evidence suggests that students learn at least 3,000 to 4,000 new words each year of schooling at primary level (White, Graves, & Slater, 1990; Beck & McKeown, 1991), that the ‘average’ five-year-old starts school knowing at least 6,000 words, and that by the end of primary school students have accumulated up to 25,000 words. However, many five-year-olds from language backgrounds other than English start school with very limited English vocabulary indeed, as do, obviously, new immigrant learners of English.

The Report of the Literacy Taskforce (Ministry of Education, 1999) acknowledges that evidence suggests our teaching is far less effective for under-achieving groups, namely Māori and Pasifika students whose home languages are not English. It notes, with considerable concern, that children whose home language is not English (learning in mainstream English medium classrooms) have markedly lower literacy levels than other children: ‘There is...a significant difference between the average performance of Māori and Pacific Islands students and that of others. Pākehā students had significantly higher scores on comprehension and vocabulary after controlling for socio-economic status’ (p. 36).
Clearly, it matters hugely that learners from language backgrounds other than English accumulate a good core of English and L1 vocabulary as fast and manageably as possible. It cannot be left to chance or immersion, but needs to be given informed and explicit attention as part of classroom pedagogy, and family practices and contexts.

**Families, schools and word learning**

Family involvement is an integral part of the Mayfield programme. Meetings have been held for families to explain not only the school-based focus and programme, but to identify and discuss with families what they can do at home to support their children to become ‘word rich’ and ‘word able’ learners. For dual language families, there are key understandings to share. Some of these include:

- that effectiveness in L1 and L2 word learning and development is transferable and complementary;
- that families can support their child’s word learning and development in both languages, even if the adults are not confident in English, in and through L1 by:
  - discussing and supporting school word learning developments, and high and low frequency word learning;
  - supporting related homework tasks;
  - talking in L1 about English word meanings, relating it to the families’ L1 and exploring similarities and differences in form, meaning, function and contextual appropriateness;
  - nurturing and modelling a love of and excitement about words, how they work and what they mean, including noticing and paying attention to words;
  - providing word-rich texts and contexts in L1;
  - using elaborated talk at home;
  - encouraging and modelling reading;
  - having resources such as dictionaries in the home; and
  - widening their child’s experiential horizons.

School staff should neither under- nor over-estimate a family’s capacity to understand and implement the above. School-based evidence suggests that it requires a combination of relationship building, developing understandings, suggesting and supporting practical approaches, and ensuring open and comfortable dialogue and communication pathways. The learners themselves can often be the most effective message givers and transmitters. Ultimately, it is the ongoing task and challenge of teachers, learners and families in partnership to deepen and expand a dual language child’s vocabulary collection and knowledge, both in L1 and in English.

**Future research**

Future research on controlling words might explore the following questions:

1. To what extent are schools explicitly attending to the development and expansion of word knowledge and effectiveness for dual language learners in mainstream classrooms, using key aspects discussed above, and other research-based and practice-based evidence as reference points?
2. What is causal and consequential in relation to limitations in vocabulary of dual language learners? How can we best expand on current research, particularly in a New Zealand context?

3. What are dual language families’ attitudes, understandings about and practices in relationship to word effectiveness development?

4. How widespread is deep involvement of families in the task of developing vocabulary-rich children?

5. What might militate against effectiveness in this regard?

6. What are cross-cultural, cross-linguistic similarities and differences in relationship to children’s vocabulary development? How can these complement and supplement current thinking and practices?

7. To what extent is metacognitive development and attention influential on young children’s vocabulary development and learning?

Practical suggestions

Some practical suggestions for improving word control include:

- developing a hierarchy/collection of methodologies, approaches and research-based and practice-based evidence which are directly relevant to primary contexts and dual language, dual culture learners;

- expanding specifically-developed bilingual resources and approaches, such as word learning templates (van Hees, 1996) and bilingual dictionaries, both general and topic-based;

- using the Mayfield Word Learning Programme (van Hees, 2002) as a model for schools;

- providing in-depth professional development for teachers of learners from language backgrounds other than English, specifically focused on vocabulary learning and enrichment;

- developing video or website support materials for teachers and families on matters of interest and importance to children’s vocabulary development; and

- conducting workshops for educators and families to develop further understandings and effective practices in regards to children’s vocabulary development.

The Concept of Input–Output

The role and importance of input is probably implicitly understood by most teachers, especially of young learners. It is seldom discussed explicitly, however, neither in relationship to key areas of curriculum learning nor to language acquisition and learning in particular. This is equally the case for families and caregivers. Home environmental factors and family interactions with and responsiveness to a child significantly impact on the child’s language development, negatively or positively (Roberts & Burchinal, 2002). Positively, it is both a conscious and unconscious ‘natural’ part of parenting; in the negative sense, it is a neglected or unrecognised parental undertaking.

In second language acquisition and learning, ‘The concept [or notion] of input is perhaps the single most important concept’ (Gass 1997, p. 1). It is clearly evident, and ‘acknowledged across all theories’ (Ellis, 1994, p. 243) that learning a language, first or second, requires some kind of input (e.g. Gass, 1997; Ellis, 1994; Carroll, 2000). Understanding current input research evidence more precisely, and transferring and applying this strategically in classroom practices for second language learners in particular, is no simple matter.
'Interaction and input are two major players in the process of acquisition', according to Long (1992, cited in Brown, 2000, p. 287). Numbers of studies, while not agreeing on detail, support the link between interaction, input and acquisition (e.g. Gass & Varonis, 1999; Swain & Lapkin, 1998; Pica et al., 1996; van Lier, 1996, 2000). Van Patten reviews in brief the last three decades of theoretical and research advances in Thirty Years of Input (or Intake, the Neglected Sibling). ‘We seem to concur that input is somehow central to second language acquisition…. What has not been a focus…is the nature of input processing, …what form–meaning connections that learners make during on-line comprehension …[and why].’ The core question, according to van Patten, is the learner processing input, ‘the result of which is intake’ (1999, p. 295).

The role and importance of input in second language acquisition is critically bound up with the notion that language acquisition and learning is a cognitive act. Learners are active participants, interacting and integrating their inner states of mind and their external worlds or input. They are consciously and unconsciously processing and producing, hypothesising, developing and restructuring grammar/s and linguistic knowledge, and conceptualising. What is accepted and rejected by the learner is a bid to ultimately communicate and mediate meaning.

Gass (1997) suggests that ‘output’ plays an active role in acquisition. It is not a final ‘product’ but rather a means to test and trial one’s comprehended and integrated input. Swain (cited in Gass, 1997, p. 7) refers to this as ‘comprehensible output’. The concept of restructuring or consolidating one’s hypotheses is an integral and important part of output generation, that is, interactive language use. Output, according to Swain (2000), ‘pushes learners to process language more deeply …and…can ‘stretch’ their interlanguage4…to create…linguistic form and meaning, and in so doing, discover what they can and cannot do’ beyond or alongside their current interlanguage (Swain, 2000, p. 99).

Feedback, whether direct or indirect, seems also to be an important factor in input processing and second language acquisition. Swain (1985) argues that learners need opportunities to ‘make output’, so that they make meaningful use of their linguistic resources (what he terms as comprehensible output). Learner output creates and opens up opportunities for ‘returned’ input in the form of indirect and direct feedback.

A study of very young children between the ages of two to three years by Valian and Casey (2003) suggests that plentiful and frequent input increases the chances that the child collects data. Because much of the available input is lost, bypassed or ignored through lack of or divided attention, multiple exposures give multiple opportunities to notice and take in that which previously was not taken in.

Findings from a research study on an English as a second language (ESL) programme in New Brunswick (Lightbown & Halter, 1993), for example, concludes that students left to acquire language from exposure to so-called ‘comprehensible input’ (Krashen, 1985) leaves learners with gaps in their language development and structuring. Output stimulates more complete grammatical processing. According to Swain (1995) triggering noticing, (consciousness-raising, for example, through think-alouds), and ‘forcing’ responses, holds a potentially significant role in development of syntax and morphology. Output further serves to foreground learners’ current interlanguage, especially in relationship to the effects of his or her language in use; that is, hypothesis testing.

Research on ESL-intensive programmes in Montreal (Lightbown & Spada, 1990) and French immersion programmes across Canada (e.g. Lyster & Ranta, 1993) clearly show that a communication-oriented input-rich environment does not in itself provide the necessary conditions for second language acquisition. It suggests that a focus on form and collaborative tasks that lead learners to try out and reflect consciously on their language production as they create meaning significantly enhances performance and ultimately language acquisition. Thus, output needs to be stimulated, guided and carefully scaffolded, offering direct and explicit feedback.

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4 ‘Interlanguage’ refers to a learner’s current grammatical theories, understandings and structures.
Noticing and attending is integral to all learning. Automatically processed input seemingly receives little or no attention, and is more difficult to modify and alter in any conscious sense. Controlled processing, on the other hand, is intrinsically noticing and attending, whereby input is consciously processed by the learner or receiver. Studies exploring the role and importance of attention, awareness and consciousness in second language acquisition, have shown that attention is a necessary requisite to much, if not most, second language acquisition from input (e.g. Schmidt, 1993; Tomlin & Villa, 1994; McLaughlin, 1987; Farthing, 1992; Cadierno, 1992, 1995).

Carroll (2000) notes that experimental results show that instructional activities focusing a learner’s attention to particular forms produce ‘superior results’ (in second language acquisition). Ellis (2003) categorises types of focus on form into three types – focus on form, planned focus of form, and pre-emptive and reactive focus on form.

Ellis (1994) and Gass (1997) attempt to draw together some main threads and conclusions from the body of evidence from studies, experiments and research related to input (e.g. from Nation, 2001; Allwright, 1994; Enright, 1984; Politzer, 1980; Swain, 1985; Willis, 1992).

According to Ellis (1994):

- frequency of input is associated with gains in acquisition;
- collaborative, negotiated meaning-making is important for rapid gain;
- learner output, indirect feedback, clarification and elaborative discourse improves second language acquisition; and
- jointly constructed discourse promotes acquisition, especially when accompanied with explicit strategies’ development.

According to Gass (1997):

- elaborated speech and elaborated modification builds semantic and syntactical redundancy, provides fuller information, and affects immediate comprehension, which might, or might not, lead to acquisition;
- information processing, by drawing the learner’s attention in particular ways, develops ‘long-term’ sets and storage;
- input for L2 learners needs to be both form-focused instruction and semantically-focused (task-based) learning; and
- prior knowledge, both linguistic and conceptual, plays an important role in progressing from input to intake to comprehension.

Studies of the interactional discursive practices of classrooms and lessons (e.g. Allwright, 1984; Enright, 1984; Politzer et al., 1981; Swain, 1985; Willis, 1992) find that ‘teachers construct learners as primarily responsive and seemingly passive participants…through the use of questions, explanations, procedural instructions’, involving and using utterances and short answer responses, rather than connected, discursive text. This results ‘in a failure [of learners] to fully attain native-speaker like5 levels in their own speech, despite years of exposure to content-based and comprehensible language input.’ (Breen, 1998, p. 124).

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5 ‘Native-like’ has been variously defined and described, and remains a controversial term and issue; simplistically put, it is language use by a second language user that is ‘like’ an age appropriate first language speaker, pragmatically, semantically, syntactically, and in fluency (see Cook, 1999, for a fuller discussion).
In a comprehensive survey of teacher classroom talk by Chaudron (1988), the research indicates that teachers use modified speech based on a judgement of the learner’s general language proficiency. Aiming at a hypothetical learner level, especially considering the heterogeneous nature of learners, means input is unlikely to be tuned very accurately to each learner’s linguistic and cognitive ‘cutting edge’.

Studies of peer talk of second language learners, (e.g. Flanigan, 1991), showed little or no attempt to use language at the competency level and cutting edge of the less proficient speaker. Where learners cannot and do not scaffold each other explicitly in a classroom setting, where a rich ‘semiotic budget’ is not available from peers, the teacher, task selection and organisation of interactional learning become increasingly significant. Ellis (1998) suggests that where learners do not differ significantly in language and learning proficiency, or do not and cannot scaffold each other, then task-based, whole class ‘lock-step’ collaborative scaffolding is possible. The challenge is to construct interaction so that as far as possible each learner is a contributor and participant, and able to operate in his or her zone of proximal development.

Teacher questioning dominates most classrooms. In studies of teachers’ questions in classrooms (e.g. Barnes, 1976; Long & Sato, 1984; White & Lightbown, 1984; Johnston, 1990), open-reasoning questions, which elicit and scaffold responses, are rare, whereas closed-reasoning type questions are most commonly used. Such questioning does not provide the necessary conditions and opportunities for elaborated, scaffolding, interactional, discursive exchanges; that is, for input–output ‘best practice’.

Exacerbating the issue is the limited response time teachers allow. A study by Lightbown and White (in Ellis, 1994, p. 591) found teachers preferred instant responses, with little wait time before redirecting or repeating, rephrasing or moving on. It requires of learners competence and speed in their input–output processing, a major demand for many dual language learners in English classrooms. It is not surprising then that they become non-responsive or silent participants, and contribute little in the way of output in the classroom, other than social-communicative responses.

A small study of second language learners conducted in two South Auckland schools (van Hees, 2003) typifies the situation of young second language learners. Their ability to express ideas, concepts, knowledge and understandings, in and through speech using detailed and elaborated oral text, what might be described as the technical, academic, ‘precise’ language of curriculum, schooling and literacy, is indeed restricted, and most often remains unnoticed, or more worryingly, unaddressed.

For example, given explicit input and carefully managed opportunities for output (as characteristised by Carroll, Gass, and Ellis), Learner A in the study showed change and gain metacognitively, linguistically, cognitively, and attitudinally in a very short space of time. It illustrates how dramatic the difference could be in learning and language outcomes, ability to participate, ability to meaning-make, and ability to become more effective and functional, if this sort of input–output were to be sustained over time.

In relationship to Learner A, interactional ‘output’, or externalisation of one’s inner mind primarily through speech needs to be more than conversational, negotiation opportunities. Being immersed in and surrounded by seemingly available ‘meaningful language’ is inadequate to develop the learner’s externalisation of thought and meaning through language. Attention, noticing, effort, ‘forced’ interactional output, ‘stretching’ one’s current language repertoire, facilitated explicitly through a mediating tool – a person, task or activity – serve to activate and increase knowledge building dialogue and construct linguistic knowledge (Swain, 2000).

By way of conclusion, then, it is suggested that consciousness raising about input is needed, whereby current understandings, interactions with dual language children and classroom practices are re-examined in light of the above discussion and current research in second language acquisition. It is pertinent to immersion education, bilingual education, and mainstream education, as well as to families and communities.
Implications and issues

Teaching and learning in mainstream, English-medium classrooms

With respect to teaching and learning in mainstream, English-medium classroom settings, ‘lifting the lid on input’ raises a number of complex issues.

The first relates to how best to provide more explicit, form-focused, interactional language input–output with a class group of learners, all at varying points of development. The following points can be made in response.

Currently, some Auckland schools are implementing a variety of approaches that include and promote explicit, form-focused, interactional language input–output (van Hees, 1994–2003). Teachers are proving that a more strategic approach is indeed possible and effective within a whole class setting, using curriculum-related contexts. When this is a regular, ongoing part of pedagogy, skillfully executed, second language learners gain and grow exponentially in language, as well as in all areas of their learning.

Classroom teachers, ESOL (English for speakers of other languages) teachers, and English language assistants, through professional development programmes, can learn to be more effective. The ‘essential’ components of what matters in English language semantics and syntax learning and acquisition – namely, deep and wide meaning-making and fluency in oracy, vocabulary, phonological awareness and knowledge, reading, and writing – need to attend to explicit, form-focused, interactional language input–output.

Some popular classroom practices may need to be subjected to closer scrutiny. They may not be as effective as is assumed. An example of this is ‘brainstorming’, an approach often used in English-medium mainstream classrooms. The most common approach is the combined sharing of ideas or vocabulary elicited from learners by the ‘hands up’ or ‘who’s got an idea’ method. These are then listed. Many learners from language backgrounds other than English cannot and do not contribute or participate. Analysis of this approach suggests one key reason is the omission of explicit, form-focused, interactional language input–output.

An alternative ‘brainstorming’ approach (van Hees, 1994a) allows learners to receive input, sourced from peers and teacher, to trial and recycle meaning-focused well-structured utterances and sentence structures, receive elaboration and expansions, be ‘forced’ to attend and output and receive feedback, and end up with a collaboratively developed list.

The difference in learning outcomes between the first and second approach, especially as related to the learners’ linguistic development and use, as well as increased participation levels, is significant. In a whole class setting such as this example, the teacher’s challenge is to implement appropriately selected strategies and approaches using pedagogic scaffolding, so each learner individually progresses and expands at his or her linguistic and cognitive ‘cutting edge’, within the group situation.

A second issue is whether the input–output concept challenges some current educational philosophies, theories and practices.

The answer, in a word, is yes. The New Zealand primary school education system is dominated by a philosophy of developmental learning, which holds also for language acquisition and learning. Input is to be ‘imbued’ and ‘absorbed’, language ‘acquired’, more through ‘osmosis’ than structured, explicit teaching. Language, in this case English language, is ‘caught’ more than taught. One is meant to ‘learn’ to listen and talk by listening and talking; to read and write largely by participating in and undertaking lots of reading and writing.

It could be argued that such an approach has empirical and theoretical support (e.g. Swain, 2000); that is, generating output is essential for acquisition. However, it is too often the case that children’s listening, talking, reading and
writing opportunities are largely ‘doing’, rather than ‘guided applied learning and output’. The young L2 learner is encouraged to ‘try it out’, receives praise for ‘a good try’, might sometimes receive a model, and is then encouraged to ‘keep on trying’. Overall, ‘input’ and generated output tends to be covertly rather than overtly shaped.

Generally, there is little time and attention paid by teachers to the internal linguistic repertoire of the dual language learner. ‘Talk opportunities’, that is, potentially language enriching negotiation and collaborative language output and input opportunities, occur relatively frequently in any classroom. However, some features of these ‘talk opportunities’ are highly significant when considering the notion of input, namely:

- teachers dominate talk and discussion time;
- much of this available input is for the whole group or class;
- the individual L2 learner may simply not notice the input, or be able to attend to or process the available input due to limited linguistic and conceptual knowledge;
- in whole class talk contexts, the learners with the most confidence and the most English language do the most talking; and
- although there appears to be a great deal of talk in primary classrooms, closer monitoring reveals that, in fact:
  - each learner talks little throughout a school day;
  - interactional meaning-making, explicit, form-focused, interactional language input–output opportunities are quite limited; predominantly class talk is social-communicative or instructional;
  - focused negotiation is not prevalent in primary classrooms; this is especially so for young learners and second language learners; and
  - ‘apprenticing’ the learners to acquire and use language effectively is not the norm.

As noted by Skehan (1998), conversational communicative activities may do little to develop an L2 learner’s interlanguage system. The output–input interactional situation may not enhance for long-term effect the learner’s inner text, especially syntactically. While adult L2 learners are much more able to trigger and use schematic, contextual and systemic knowledge (Clark & Clark, 1977), young learners, on the other hand, need explicit development in metacognitive strategies in order to become conscious learners, and hence to capitalise better on available input. In primary classrooms generally, information processing attention and instruction remains more implicit than explicit.

The linguistic knowledge of many primary school teachers is not extensive. Theoretically and linguistically-based language approaches require teachers to have a deep theoretical and applied linguistic knowledge base, particularly incorporating systemic functional linguistics.

*Families, communities and their schools: The interface*

Input–output is equally significant for families when interacting with their child in home and community contexts. It is possible to simplify much of what has been described above and make this available to families. By understanding the importance and role of input–output, and through helping them identify specific ways to do this effectively, they can make their own informed choices. Experience shows they are more than willing to do what they can to enhance effective outcomes for the child.
For families from language backgrounds other than English, it is the richness and effectiveness of input–output that is central, not that it be English. Using their preferred, strongest and most comfortable language is best. They might need reassurance about this. Often, too, they need reassurance that duality of language use is likely and acceptable, possibly with the adult using mainly L1 and the child interchangeably using L1 and L2 (van Hees, 1994b).

The following, then, may be emphasised with families:

- the importance and positive effects of collaborative, negotiated meaning-making;
- the value of jointly constructed exchanges between adult and child, using direct and indirect feedback;
- the importance of using and nurturing elaborated and expanded oral language; and
- the importance of encouraging the development of attending and noticing by the child.

It might be expressed to families in these terms:

- be ‘tuned-into’ your child;
- encourage your child’s contributions, and add on your own;
- use language that is understandable to your child, yet has detail – add on and enrich your talk together;
- get the balance right – you and your child talk together, taking turns and sharing;
- comment on what your child does and says;
- use fewer question and answer exchanges, and fewer commands; and
- help your children to understand their world, using precise but ‘easy enough’ language.

Families need to delicately balance being natural and ‘easy’ in this, so as not to overwhelm the child, with consciously encouraging language development.

Sharing explicit ways and examples occurs in the Home–School Partnership programme (Ministry of Education, 2003). The programme is enabling, inclusive and non-prescriptive, and affirms and celebrates each family’s individual culture. It is a well-researched model of how the school–home interface can be practised. In relation to input–output, the six sessions for families covers the basics of this.

The Home–School Partnership programme is only one of a number of ways that sharing with families can occur. Other examples that are proving effective in some Auckland schools, include:

- holding regular first language meetings for families by families, with a teacher facilitator to assist;
- providing regular information-giving in the school newsletter;
- using display boards that are strategically placed;
- inviting family members into class to participate, contribute and observe;
- employing casual, incidental word of mouth communication between informed community members, language support assistants, teachers and families; and
- holding focused family discussion meetings.
Crafting a Fuller Repertoire in Oral English

There is general agreement by experts in the fields of second language acquisition and bilingual education that conversational fluency is often acquired to a functional level within about two years of initial exposure to the second language, whereas at least five to seven years is usually required to catch up to native speakers in academic aspects of the second language (e.g. Collier, 1987; Klesmer, 1994; Cummins, 1981). Cummins states: ‘Failure to take account of the BICS/CALP [Basic Interpersonal Communicative Skills/Cognitive Academic Language Proficiency] (conversational/academic) distinction has resulted in discriminatory psychological assessment of bilingual students and premature exit from language support programs (e.g. bilingual education in the United States) into mainstream classes’ (Cummins, 2003).

Pauline Gibbons (1991) outlines the differences between the everyday language of face-to-face interaction and the language of schooling, between what she terms playground language and classroom language:

*This playground language includes the language which enables children to make friends, join in games and take part in a variety of day-to-day activities that develop and maintain social contacts. It usually occurs in face-to-face contact, and is thus highly dependent on the physical and visual context, and on gesture and body language.*

*But playground language is very different from the language that teachers use in the classroom, and from the language that we expect children to learn to use. The language of the playground is not the language associated with learning in mathematics, or social studies, or science. The playground situation does not normally offer children the opportunity to use such language as: if we increase the angle by five degrees, we could cut the circumference into equal parts. Nor does it normally require the language associated with the higher order thinking skills, such as hypothesising, evaluating, inferring, generalising, predicting or classifying. Yet these are the language functions which are related to learning and the development of cognition; they occur in all areas of the curriculum, and without them a child's potential in academic areas cannot be realized.* (p. 3)

Bilingual learners need to construct age appropriate, linguistically complex and ‘embedded’ utterances and sentences, in curriculum learning and in classroom discourse. When able to do so orally, in detailed ‘topicalised talk’, their spoken text repertoire becomes the ‘launching pad’ for their literacy, and their overall learning.

The oral English of many bilingual learners in mainstream classrooms is limited. Of major concern is their ability to express ideas, concepts, knowledge and understandings, in and through speech, using detailed and elaborated oral text, the technical, academic, precise language of curriculum, schooling and literacy. This inability often goes unnoticed, or is masked or ignored, and can become a chronic disabling language issue for these learners. Approaches that explicitly and strategically address the effective academic oral language development of learners from language backgrounds other than English are likely to have an exponential positive effect on all areas related to their external worlds.

Oral language is recognised as having a high impact on reading and literacy development. Clay (1998) notes the following: ‘Talking is a neglected area…. Children enter school with differences in oral language experiences, and they need rich oral language experiences…. Oral language must be extended at a fast pace, otherwise children’s entry competence may limit what they are able to make of all subsequent opportunities…. For want of a boost in oral language development a child could be lost to education…. We rarely see teachers planning language activities for the sake of extending oral language itself’ (p. 208).

Snow, Burns and Griffin (1998, p. 19) state boldly that increasing oral language skills ‘could prevent the majority of reading problems’. Other studies show high correlations between individual differences in oral language skills and later differences in reading (e.g. Bishop & Adams, 1990; Lonigan et al., 1999; Pikulski & Tobin, 1989). As Scarborough
says, ‘In other words, children who have larger vocabularies and greater understanding of spoken language have higher reading scores’ (1998, p. 100).

August and Hakuta say: ‘When a child’s home language is other than English, the likelihood of reading and writing difficulties [and constraints] increases. This is particularly true if reading instruction in English begins before the child has acquired oral proficiency in English’ (as cited in Strickland, 2002, p. 323) A child who does not have the words in their spoken form, who is unable to use them meaningfully in oral text, and who lacks critical background knowledge, is unable to comprehend: ‘Reading comprehension deficits are essentially oral language limitations’ (Scarborough, 2002, p. 98).

Juel (1988, as cited in Grover & Lonigan, 2002) notes that bilingual children from low socio-economic families are more likely to be ‘behind’ in oral language. Other learners from language backgrounds other than English are equally at risk. Their limited academic vocabulary, and limited control of technical and academic discourse, often frustrates them and restricts their linguistic, cognitive and academic potential. There is a danger that a deficit, judgemental perspective is taken. They are ‘normally intelligent’, capable, keen and able to learn, and often more lateral thinking than monolinguals because of their dual culture and language. They may be subjected to low expectation levels by educators, as is evidenced in the Hall, Myers and Bowman study (1999), and by society generally, with such attitudes held as ‘They’re doing all right for them’, and ‘What can you expect?’ Such attitudes are disempowering and unproductive.

Ellis (1998) makes the distinction between the ‘topic’ and ‘activity’ in relationship to classroom talk and dialogue – namely, ‘activity’ as focused on how things are said and done; and ‘task’ as focused on what is talked about. He suggests learners are more likely to achieve control of discourse when the teacher ‘permits’ or focuses on ‘topicalisation’. His analysis of classroom discourse shows that when ‘novice’ language users, young children or L2 learners are able to initiate and control the way they receive assistance in expressing and developing own ideas – that is, the provision of ‘acquisition rich’ text – ‘the resulting text and interaction contributes to language acquisition and learning’ (Ellis, 1998, p. 155).

Van Lier (1988, cited in Ellis, 1998, p. 156) argues that learners need topicalisation and participatory discourse control opportunities before they can experiment ‘with language at the cutting edge of their linguistic development [in order to develop] the academic text structures’ [of curriculum].

Johnson (1995, as cited in Ellis, 1998) suggests optimal conditions for L2 acquisition are those which provide ample opportunity for learners to use language and participate in language-related activities ‘just beyond’ their current level of proficiency, and which offer contexts that cater for ‘full performance’ of the language.

Newman, Griffin and Cole’s 1989 research (cited in Swain, 2000), which studies young learners in the context of curriculum learning in mathematics, science and social studies, reveals ‘a process of the “jointly constructive interaction” mediated through language and other cultural tools’. The learner’s externalisation (or output) of language, facilitated explicitly through a mediating tool, person, task or activity, primarily through speech, stretches his or her current language repertoire. It serves to activate and ‘grow’ knowledge building dialogue and construct linguistic knowledge (Swain, 2000).

Studies examining the effects of elaborative detail (e.g. Long, 1993; Derwing, 1989, 1996; Chiang & Dunkel, 1992) suggest that elaborations, mainly in the form of repetition and extension of concept, facilitate meaning-making and second language acquisition. Conceptual and language enhancement is the basis of scaffolding. Cullen (2002), investigating supportive ‘teacher talk’ in the context of subject learning in primary and secondary classrooms, argues that the F-moves (follow-up moves) of reformulation, elaboration, comment and repetition appear the most effective in making available the content and form of classroom discourse.
To summarise, theoretical and research evidence suggests that oral language effectiveness, especially in academic learning and discourse, is of immense importance across all curriculum areas. It is characterised, shaped and optimised by explicit and strategic attention to:

- using reformulations and elaborations, mainly in the form of repetition, extension of concept expressed in and through words, and elaborating comments;
- using topicalisation and participatory discourse control opportunities;
- using focus-on-form development;
- providing ‘acquisition rich’ text;
- providing ample opportunity to use language, and participate in language-related activities ‘just beyond’ the current level of proficiency of the learner; and
- using mediated ‘saying’, or ‘collective, collaborative dialogue’ and turn-taking.

**Implications and issues**

**Teaching and learning in mainstream, English-medium classrooms**

Crafting a fuller repertoire in oral English raises several issues related to teaching and learning in mainstream, English-medium classrooms:

1. The development of social-communicative oracy, BICS or ‘everyday language’ is often used as a measure of a learner’s oral language in English at school. Very few assessment tools and attentions are focused on recording the learner’s development of academic, schooling oral language. It is not difficult to do so, but because it seldom occurs, teachers make ‘surface’ judgements.

2. A study by Dixon and Williams (2002, p. 105), examining formative assessment in primary classrooms, found that teachers have difficulty in interpreting and utilising assessment information gained in oral situations: ‘Of concern was the number of teachers in the study who neither collected, analysed, nor utilised information related to children’s oral language’. They note that the majority of teachers had no specific planned oral language programme. Teacher self-reports and anecdotal evidence reinforce this. Generally, teachers have very minimal perspectives on the oral language repertoire of their bilingual, second language learners.

3. Research-based evidence suggests that learner opportunities for oral language in the classroom is limited and largely social-communicative. When there is an explicit focus creating a ‘rich semiotic budget’, in a success-orientated, participatory, scaffolded learning environment, the dual language learner’s cognitive, social and linguistic development improves in both languages. Lexical, syntactical, grammatical and semantic change and growth is evident. An awareness of and ability to detail, connect and expand concepts and ideas, in and through the oral mode, becomes a transferable strength.

4. Dual language, dual culture learners right across the English language competency range need to develop effective academic oral language. When learners largely depend on classroom teaching and learning as their source of academic English development, (and many do, especially new learners of English who initially, at least, have limited English resources and access outside schooling), then explicit, focused development of classroom discourse and curriculum-based oral language becomes more and more essential.

5. A limited oral ‘budget’ limits the effectiveness of strategies to comprehend written text. An example is the development of deep and wide vocabulary knowledge. If a reader can ‘sound out an unknown’ word in print text,
but not recognise this in his or her inner (mental and oral) text, then word recognition and meaning-making is ‘disabled’. For many second language learners, this is the case.

6. With effective professional development, the optimised conditions summarised above are embedded and practised by teaching staff and by families. One example among a number of schools where this is taking place is Clendon Park Primary School, Auckland (van Hees & Clendon Park Primary School, 2002). Specific and cross-curricula approaches and methodologies pay explicit attention to focused oral topicalisation. Explicit attention is given to maximising each learner’s time and opportunities for input–output through pair, small group and whole class co-construction, pedagogic scaffolding (Ellis, 1998) and the development and use of technical, precise text – to the creation of a ‘rich semiotic budget’. Participatory mechanisms, including metacognitive discussion, are woven into the various approaches, and there is a ‘can do’ attitude.

7. The results show literacy gains, conceptual growth, increased learner enthusiasm and participation levels, and the development of a more inclusive, communicative, interactive and active teaching and learning classroom, community and culture.

The above discussion points towards a need to change classroom practices and culture so more explicit attention is given to oral language development, both in general classroom discourse and within all academic teaching and learning. Learners need, and have a right to, a fuller oral repertoire. Not only do bilingual learners stand to gain, but so, too, do all learners. It is the task of all who teach learners from language backgrounds other than English to craft and develop their English oral text so they can more fully function, participate and contribute, especially in school curricula.

Families, communities and their schools: The interface

Outside school, environmental factors are highly influential on the development of a child’s oral language. Conversations with families that help further this understanding should continue and expand.

A major theme throughout all six sessions in the Home–School Partnership programme (Ministry of Education, 2003) is the development of concepts, understandings, vocabulary, language structure and literacy, in and through shared talk, in L1 and/or English. The model, programme and outcomes are proven; the programme contents are consistent with the above research-based and practice-based evidence in regard to oral language development. Ideally, this programme should be available to more schools, and sustained in schools which have participated in the training programme to date. It is an optimised model of partnership, empowerment and alignment.

It is also possible to envisage how key parts of the programme could be adapted, redesigned and repackaged for wider dissemination. Examples might include:

- providing pamphlets with key oral language messages, translated into languages other than English and distributed to families;
- developing television or video materials in English and languages other than English; and
- holding meetings with ethnic and community groups to discuss and demonstrate oral language messages and effective practices.

The oral language messages might also take other forms; for example:

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6 Specific focus examples developed by van Hees, J. (1994–2003) include: ‘+ ++ +++’, partner buzzing, dialogic turn-taking, memory, Camera Cameos, expanding a baseline sentence, a whip, and changing the mode. Approaches such as dictogloss, interactive dictation, brainstorming, mind-mapping, scaffolding into texts, three-level guides, big book, strip dictation, to name some which integrate a range of focuses, also embrace the core principles and features of focused oral topicalisation.
• holding meetings, such as those held at Mayfield Primary School, Auckland, where families explored and discussed the importance and development of speaking and listening in school and outside school, and where materials shared in the meeting were distributed to families (e.g. van Hees, 2000);

• encouraging family members to participate in classroom activities where effective oral practices are being used; and

• encouraging families to talk to other families, providing a powerful ‘wireless’ for communication.

It is important to stress with families that the ideal, that their child has optimised oral language opportunities in L1 and English, might not be possible in the family context. In partnership with school, however, both can be provided, with the school focused primarily on English and the family on L1.

CONCLUSION

As key participants in education and schooling, teachers, other school staff, families, community members and the children are in a co-relationship, with the children the centre of focus. There is no simple perspective or provision in relation to learners and families from language backgrounds other than English: it is complex.

Ideally, dual language, dual culture children feel empowered and effective, able to operate equally well in the language and worlds of English as well as in their home, family and community language/s and worlds. Both are their right, enriching and expanding themselves and others. The interactions they encounter to this end need to ‘enable children’s emerging expertise’ (McNaughton, 2002, p. 215) towards reaching their full potential.

For many, if not most, dual language, dual culture learners, possibly the only realistic or preferred option educationally is learning in mainstream English-medium classrooms and settings. Schools, in particular, have a key role to play in the effective development of these learners as English users. It may require teachers and school staff to re-examine current thinking and practices, with a readiness to re-structure, reform or enhance the programmes and learning provisions that may be taken for granted as ‘truths of best practice’.

Families, on the other hand, have a double role – they are the main source and resource for the child’s heritage linguistic and cultural worlds, as well as the key in supporting them to achieve positive educational outcomes and become fully functional in wider linguistic and cultural worlds and contexts.

In summary then we need to:

• develop and sustain relationships between school and family and all the participants in the education of dual language, dual culture children;

• examine and critically evaluate current classroom understandings, attitudes and practices for learners from language backgrounds other than English, drawing on informed and current research-based and practice-based evidence in the fields of sociolinguistics, psycholinguistics, applied linguistics, second language acquisition studies, and first and second language education in particular; and

• make educational changes, where appropriate, in line with proven and informed understandings and perspectives, so that learners from language backgrounds other than English have optimal opportunities to acquire and learn in and through English.
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Te Reo Pāngarau: Learning and Teaching Mathematics in Māori

Ian Christensen

Ian Christensen is senior lecturer, School of Māori Studies, Massey University.
Te Reo Pāngarau: Learning and Teaching Mathematics in Māori

Ian Christensen

Abstract

This paper discusses the language issues emerging from a research project associated with Te Poutama Tau, a professional development programme in numeracy for teachers in Māori medium schools. Issues discussed include terminology, language change, access to mathematics discourse in Māori, and the development of cognitive language proficiency.

INTRODUCTION

Te Poutama Tau is a professional development programme in numeracy for teachers in Māori medium schools. The programme focuses on the first eight years of schooling, and began in 2002 because of increasing demand from Māori medium teachers to be involved in the English medium numeracy programme which had begun with a trial in 2000. Te Poutama Tau, like the mainstream numeracy project, is responsive to the Government’s strategy for improving levels of literacy and numeracy in New Zealand schools (see Ministry of Education, 1999). Unlike the numeracy project, however, Te Poutama Tau is also firmly located within the overall context of Māori development, which includes the maintenance and revitalisation of the Māori language.

Because of this, there are three major aims for the Te Poutama Tau professional development programme, as outlined in Figure 1.

Figure 1: Te Poutama Tau: Context and Aims

A small research project was commissioned by the Ministry of Education to go alongside Te Poutama Tau, and this represented the first coordinated opportunity to focus on learning and teaching pāngarau in Māori-medium classrooms.
In 2002, the research project consisted of:

- collecting and analysing the results of two diagnostic interviews conducted with children at the beginning and at the end of the programme; and

- collecting information from teachers and facilitators through discussion forums and questionnaires about the programme, and about the language issues.

A further component has been added to the research for 2003 whereby examples of ‘pāngarau teaching segments’ have been videotaped and analysed in order to discover more about how te reo Māori can be used effectively in learning and teaching mathematics. A full discussion of the results from Te Poutama Tau research for 2002 can be found in Christensen (2003). The present paper focuses on and expands the language issues that have emerged.

Mathematical understanding is gained from using and interpreting language, symbols, numerals, displays and diagrams. The way in which each of these is used by teachers in the classroom, and by writers of resource material, is therefore of critical importance. The underlying pedagogy of Te Poutama Tau and the numeracy project is based on the principles of constructivism whereby teachers are required to engage learners in mathematical discourse and problem solving which guides them to build on previous knowledge to construct new understandings (see, for example, Higgins 2003; Cobb 1986; Vygotsky, 1978). The importance of how language is used in this process is further increased for Māori medium teachers for two reasons. First, te reo Māori has a very short history as a language used for learning and teaching mathematics. Colonial hegemony ensured that there has not been a natural progression in the development of Māori language corpus necessary for mathematics discourse. Second, there are a large number of second language learners of te reo Māori (both students and teachers) involved in Māori medium education. For many of these people, English is a stronger language.

Numerous issues arise from these two points which have been evidenced in the data gained from Te Poutama Tau research. Four interrelated issues are discussed here: terminology; language change; access to mathematics discourse in Māori; and the role of basic interpersonal communicative skills (BICS) and cognitive/academic language proficiency (CALP).

**Terminology**

There is debate and tension about terminology. In some instances this has arisen because teachers have been left to create a Māori technical register for mathematics ‘on the run’ as they create resources for the next day’s learning. In other cases, teachers have not taken up or had access to terminology suggested by curriculum developers.

An example of how the use of inappropriate terminology can impact negatively on the learning process is the word hāwhe. Hāwhe is a transliteration of the English word half, and has gained widespread usage from the time of initial contact with English. There has been and continues to be no problem whatsoever with the use of this word in the context of general everyday conversation. However, when such a word is used for mathematics, it becomes part of a family of words that are used for the particular topic it relates to, in this case fractions. It is far easier for learners to understand new concepts when they can make connections to their existing knowledge. This is most easily achieved when items of vocabulary used for a new concept relate to vocabulary used previously in that topic area. The suggested terminology for half is hauroa which derives from the word hau meaning ‘excess, parts, fraction’ (Williams, 1991, p. 39). If learners understand the concept of hauroa it is easy for them to transfer this understanding to hautoru (third), haowhā (quarter), and so on. However, if hāwhe is used for half, and then hāwhe toru for a third, it is easy to see how learners can have difficulty making connections and gaining complete understanding of the mathematics (hāwhe toru would actually be one-and-a-half rather than a third).

While there was some nationally coordinated corpus development that went hand in hand with the development of the curriculum statement, subsequent communication or transfer of the corpus that was developed was largely limited to a list
of words written at the back of the statement. The Poutama Tau research showed that teachers were more likely to use specialised words if they knew the derivation of the word, and its mathematical application. A list at the back of a curriculum statement cannot achieve this. It is encouraging to note that corpus development activity for pāngarau supported by the Ministry of Education has increased somewhat in the past two or three years. It should also be noted that pāngarau is in a much better position in this regard than subjects such as pūtaiao (science) and hangarau (technology).

The mobility of students in Māori immersion is high, and an added problem that arises from the variability of terminology is the difficulty it creates for students who transfer to a new school and have to cope with a different local vocabulary.

On the positive side, many teachers who use the nationally developed vocabulary report that students have little difficulty in understanding the concepts behind the word because of either the descriptive nature of the term, or because of its relationship to previously learnt concepts.

Language Change

While there is a general acceptance from teachers that a technical register for a subject like mathematics is a necessity, many are concerned that te reo o ngā mātua tipuna (the language passed down by the ancestors) may become changed beyond recognition because of its use and growth in areas such as mathematics and other curriculum subjects. This is compounded by the fact that te reo Māori as a language of communication is not in a strong position in many homes and community settings. The school is charged with being the major source of linguistic input for the revitalisation of te reo Māori as a language of everyday communication. It also must fulfil its function as a learning institution which requires the use of te reo Māori as an academic language within a contemporary curriculum. Added to this, in some instances, is a responsibility for the maintenance of tribal dialect.

In many cases, the way Māori language is being used in mathematics approximates the structure of English. While this is also a general phenomenon, and is the natural outcome of the impact that a powerful international language such as English has on indigenous minority languages throughout the world, there is some evidence that this is intensified for mathematics. A good example is the language used for number operations. In Māori, the words do not follow the sequence of the written symbols as they do in English, and English was also seen to be more concise than Māori. For this reason, many teachers and children have adopted the English structure, saying toru tāpiri rua rite rima. While it may be pragmatic to accept this borrowed linguistic structure as an example of language change resulting from contact between English and Māori, it is unclear whether such a borrowed structure used specifically for pāngarau could transfer across to general language use. If this phenomenon is widespread beyond the example discussed here (and some would argue on the basis of anecdotal evidence that it is), the result may be a decline in the unique linguistic structure of Māori (see Barton, Fairhall, & Trinick, 1998, for further discussion of this issue). In 1984, Timoti Kāretu, the former Māori Language Commissioner, delivered a keynote address to the annual hui of the Te Ātaarangi movement. He was very clear in his views about the development of the language with regard to new terminology and the structure of the language. He said:

   Ko ngā kupu hou te oranga o te reo, engari kia kaha tātou ki te pupuri i tā te Māori whakatakoto i te kupu.

   (The new words are the salvation of the language, but we must be strongly focused on retaining the unique structure of Māori language.)

Further research needs to be undertaken in order to understand how te reo Māori is changing as a result of the school curriculum, and how best to ensure the long-term linguistic integrity and authenticity of the language.
Access to mathematics discourse in Māori

There are few examples of mathematics discourse in the Māori linguistic environment that teachers have access to. Generally teachers have not heard others talking about maths – nobody has talked to them about place value or decimal fractions or linear graphs, and written resources which provide examples are either non-existent or very few. English medium teachers have been socialised into the language of mathematics through their own experiences in the education system, and through the English linguistic environment they are part of, including the media and written resource materials. Most Te Poutama Tau facilitators reported that ‘language issues’ such as vocabulary and how to say things correctly were often a topic of debate and discussion in the teacher workshops, and time had to be allowed for this. This signals teachers’ concern that they provide good language models for their students, and an awareness that the conciseness, clarity and correctness of their own language will have a major impact on both the students’ language development and their learning in pāngarau. It was also recognised by teachers that Te Poutama Tau programme makes much greater demands on their use of language and their ability to use other tools of communication than previous methods of teaching pāngarau.

Using BICS for CALP

Building on the work of Skutnabb-Kangas and Toukomaa (1976), Cummins developed a model of language proficiency (Figure 2) which distinguished between basic interpersonal communicative skills (BICS) and cognitive/academic language proficiency (CALP). He argues that in the pursuit of communicative proficiency, schools will often ignore other aspects of language proficiency which are ‘considerably more relevant for students’ cognitive and academic progress’ (Cummins, 1984, p. 137).

Figure 2: Surface and Deeper Levels of Language Proficiency

Cummins posits that a failure to focus on minority students’ cognitive proficiency in their language will lead to low academic achievement. Furthermore, because of their apparent fluency in basic interpersonal communicative skills (BICS) there is a danger that poor academic performance will in turn be blamed on ‘deficient cognitive or personality traits of minority language students’ (ibid).

Te Poutama Tau research showed that in many cases, students and teachers have developed very good strategies to cope without having to use a technical mathematics register. Everyday communicative language is used to talk about
It is easier to get away without using mathematics language in the early years of learning and teaching, but as the subject increases in conceptual difficulty and sophistication, this becomes more and more difficult. Data from Te Poutama Tau diagnostic interviews shows that students’ proficiency in the language becomes more critical to their achievement as they progress to the higher stages in the number framework. Mathematics vocabulary is very much incremental in that the language needed for present learning builds on language used in previous learning. If this does not happen, Māori immersion students will be severely disadvantaged in their learning, and their achievement in national qualifications. To illustrate this point, the following is an instruction from a NCEA Level 1 pāngarau assessment activity. If the particles are not included, 17 out of the 22 words in the instruction could be counted as mathematics terminology:

\[
Waihangatia te tapatoru waerite, kia noho töna pūtake ki te rārangi AB, ko te rārangi weherua hāngai ki waenganui o te tapatoru. E 4cm te roa o te pūtake o te tapatoru, e 6cm ngā tapa waerite. Ko te pīwāhi C te pīwaienga o te pūtake o te tapatoru.
\]

(Construct the isosceles triangle that has its base on the line AB and has the perpendicular bisector as the altitude of the triangle. The base is 4cm and the other sides are each 6cm long. C is the midpoint of the base.)

**DISCUSSION**

Arising from the research and the experience of the facilitators, the advisory group for Te Poutama Tau has recommended that a linguistic strand be added to the number framework that is at the centre of the programme. The purpose of this would be to inform the way Māori language is used in mathematics learning and teaching, and assist teachers to realise the full potential of the ‘moments of learning’ that occur in their classrooms through the skilled use of language. While discussion about this is not too far advanced, it is possible that a linguistic strand would focus on language to ‘elicit, support and extend students mathematical thinking’ (Fraivillig et al., 1999).

Eliciting students’ responses includes questioning techniques and the scaffolding of questions and activity; using different types of questions to promote various levels of thinking; and using student responses to promote thinking.

Supporting students’ responses includes such things as re-voicing student responses; rewording student responses (perhaps using more correct language structures and terminology); accepting and building on student responses; providing further explanation and clarification; and revisiting previously learnt concepts.

Extending students’ responses includes challenging students to try different methods; re-contextualising the mathematics problem; and relating new concepts to previously learned concepts.

Integrating the notions of eliciting, supporting and extending into successful instructional strategies will require teachers to synthesise their pedagogical knowledge, their content knowledge and their linguistic knowledge to inform the many and varied ‘on the spot’ decisions they make during the progress of any particular lesson. Figure 3 shows how these three aspects of a teacher’s cognition are inter-related. It also signals the intention that a linguistic
A linguistic strand for Te Poutama Tau framework will contribute to teachers’ linguistic knowledge. The key to achieving this will be to find ways to use the linguistic strand to improve teacher knowledge and performance. The diagram also locates corpus development as the beginning point for a linguistic strand.

**Figure 3: Teacher Knowledge and Instructional Strategies**

The research confirms a conviction that corpus development work (including the transfer of corpus to the teaching sector) for te reo Māori in pāngarau and other curriculum areas is necessary. This work would aim to ensure that:

- we do not rely on everyday communicative language to fulfil academic purposes;
- there is continued cognitive development of children through to the higher levels of schooling;
- the unique and authentic structure of te reo Māori is maintained;
- Māori medium students achieve high levels of success in national qualifications; and
- there is development of higher order thinking skills such as critical analysis, inference, synthesis and application of knowledge.

**CONCLUSION**

Language is the most important tool that teachers have at their disposal to achieve the effective learning of their students. It is through the careful and effective use of language that learners will become excited and inquisitive, will be guided along learning pathways that allow them to access knowledge and construct understandings, and will enable them to become critical thinkers with ability in the higher order cognitive processes of analysing, evaluating and creating. This is consistent with Cazden’s argument for a greater focus on the influence of classroom language use on learning:

> Creating the conditions for the interdependent goals of academic learning and language development for all students requires changes in classroom language use… Because of the conditions both within the classroom and outside it, we need the ‘medicine’ of more careful analysis and conscious control so that our implicit theories of the language of teaching and learning can be open to continual revision. Nothing less does justice to our profession and our children. (Cazden 2001, p. 181)
REFERENCES


Expansion of Meaning During Book Experiences in Two A’oga Amata

Feaua’i Amosa Burgess

Feaua’i Amosa Burgess is a lecturer in the School of Early Childhood Education, Wellington College of Education.
Expansion of Meaning During Book Experiences in Two A’oga Amata

Feaua’i Amosa Burgess

Abstract

A’oga amata provide early childhood education for children in the process of becoming bilingual in Samoan and English. In this study, the focus of attention is on how the rereading of a favourite book provides opportunities for children to develop competence in the literacy register of the language in which the story is told. The study takes the form of a reflective enquiry into the practices used by teachers and children to expand meaning as stories are enjoyed once again.

INTRODUCTION

The two a’oga amata included in this study have daily book experiences in Samoan and English, as well as regular book experiences in te reo Māori. Underlying this practice is the assumption that competence with the literacy register of Samoan and English is acquired individually as a function of book experiences in each language.

The alternative view is that the a’oga amata should concentrate on increasing exposure to the literacy register of Samoan, making the impact of the a’oga amata on biliteracy dependent on the transferability of the literacy register from Samoan to English. If this competence does transfer, then bilingual children with story book experiences in Samoan will have an advantage in learning to read in English because an underlying skill has already been acquired. There may even be a facilitation effect from cumulative mastery if story book experiences are available in both languages.

The alternative view, however, has not been substantiated in the research literature. For example, Bialystok (2002), based on a reasonably large scale investigation into the development of literate language among English/French bilingual children in Canada, is of the opinion that:

[Bilingual] children must establish the literacy basis of their linguistic competence individually for their different languages; oral proficiency in general provides no privileged access to literacy for bilingual children. (p. 176)

At a’oga amata, literacy experiences in te reo Māori are a separate case. The book experiences are being used as a window on the language and culture of Māori.

There are consequences for adopting a separate literate language policy. The two a’oga amata are even-handed in the frequency of book experiences in Samoan and English, thereby halving the potential exposure to stories in any one language. Second, the language of the text becomes the language used in the story reading, and the language in which discussion is initiated. Children, however, sometimes language switch in their interaction with the story. The teacher usually goes with the switch, but will then bring the discussion back to the language of the text.

1 There were 50 licensed a’oga amata and 20 a’oga amata preparing for licensing in New Zealand at the time of writing this paper. The centres provide early childhood education to approximately 1,600 children coming from families who wish to acknowledge their Samoan heritage in their children’s early education. There are regional bodies and a national organisation (Sosaiete A’oga Amata i Aotearoa – SAASIA) to which teachers in a’oga amata belong. The regional bodies and the SAASIA discuss policies, organise workshops, support the development of training for teachers and promote early childhood education with their communities.
Emergent Literacy

The concept of emergent literacy views reading and writing development from the perspective of the child rather than of the adult. Thus emergent literacy refers to the changes over time in how children think about literacy and how they attempt to understand or produce written language (Teale, 1995).

As a paradigm, the notion of emergent literacy requires four conditions to be met:

1. Children become involved in literacy experiences from the earliest years.
2. Rich print environments are created; children are immersed in a wide variety of written language.
3. Written language is made a useful and important part of the environment.
4. Children are involved in play where written language functions to achieve a wide variety of goals.

In an emergent biliteracy these conditions apply to each language.

Key practices characteristic of an emergent literacy programme at an a’oga amata include the following:

- story book experiences in Samoan, English and te reo Māori. A wide variety of children’s literature is used, and the reading involves considerable discussion with the children;
- story book ‘readings’ by the children. Children ‘pretend read’ books that have been read to them. The book corner serves as places where children have access to children’s literature in the various languages of the centre;
- response to story reading opportunities. Children respond to books that have been read aloud to them through discussion, writing, art, music and drama;
- embedding written language (Samoan, English and te reo Māori) in the environment of the a’oga amata and in daily experiences. Signs, lists, charts, calendars, captions and experience stories are read and written as part of daily routines;
- writing. Each day teachers demonstrate the processes of writing and children write their own messages of different types;
- phonemic awareness development. Through rhymes, poetry, songs and language play children hear the constituent sounds that make up Samoan and English; and
- letter and letter-sound activities. Children learn the letters of the Samoan and English alphabets and the sounds associated with them, in the context of the emergent literacy programme.

The present study focuses on the discussion that arises from the rereading of a favourite story book. The genre is restricted to narrative.²

Expansion of Meaning

There can be different relationships between the contribution made by participants in a book experience and the text of the story. One important relationship is the expansion of meaning. During this process the text or a previous

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² Other types of texts included in the story reading programme of the a’oga amata include narrative information texts, non-narrative information texts, poetry and dual purpose texts.
utterance is (a) elaborated, (b) extended, or (c) enhanced. Below is a brief definition of each of these categories using distinctions drawn from Halliday (1985).

**Elaboration**
A contribution from a participant is elaborated when all or some part of it is restated using other words, or when more detail is given, a comment is made, or an example is supplied.

**Extension**
One participant extends the contribution of another by adding some new elements, giving an exception, or offering an alternative.

**Enhancement**
A participant expands the contribution of another by embellishing it – qualifying it with some circumstantial feature of time, place, cause or condition. In English, enhancement is typically signalled by conjunctions such as ‘then’, ‘so’, ‘for’, ‘but’, ‘yet’, and ‘still’, and by cohesive expressions such as ‘at that time’, ‘soon afterwards’, ‘till then’, ‘in that case’ and ‘in that way’.

**Research Question**
The goal of the present study was to answer the following question descriptively: What tactics are children and teachers using to expand meaning in talk that intersects with the reading of the story?

A ‘meaning expansion’ episode can be initiated by the teacher or a child. It can be simple (limited to three or four turns) or complex (involving more than four turns).

**METHOD**

**A’oga Amata**
The study took place in two a’oga amata in one community in the Wellington area. Both a’oga amata are licensed childcare centres operating for a full day, five days a week.

**The Children**
Eleven children took part in the book experiences. They were aged between four and five years old. All children were bilingual in Samoan and English, although they varied in their stronger language. Of the 11 children, five had Samoan as their stronger language and six had English.

**The Teachers**
Three teachers who had qualifications in early childhood education were involved in the book experiences. Each teacher was bilingual in Samoan and English with Samoan as the stronger language. Two teachers had more than five years’ experience at their a’oga amata, and one was a relieving teacher with two years’ experience.

Details of the centres, children and teachers appear in the appendix.
The Books

Four stories were used in the book experiences. On each occasion the story was chosen by a child in the group.

In all cases the stories were familiar to the children, and the situation was one of hearing a favourite story being told for another time.

<table>
<thead>
<tr>
<th>Centre</th>
<th>Details of the books</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>O Laʻu Pusi i Totonu o le Pusa</em> (My Cat in a Box) by Jenny Purchas and Susiana</td>
</tr>
<tr>
<td></td>
<td>Tauelangi, a teacher-made enlarged book, 1996. (Samoan text)</td>
</tr>
<tr>
<td>Centre B</td>
<td><em>Too Little</em> by Diana Noonan, Learning Media, 1996. (English text)</td>
</tr>
<tr>
<td></td>
<td><em>O loʻu Tina Matua</em> by Maureen Goodwin, Learning Media, 2002. (Samoan text)</td>
</tr>
</tbody>
</table>

Transcription

The book experience was audiotaped and transcribed with particular attention to points of interaction between the teacher and the children.

The transcripts were examined for instances where meaning was expanded by the teacher or the children in response to a trigger. Photographs were taken of the situation in which each story was being told.

Analysis

Each episode of meaning expansion was described using a description of the tactics that the participants used to achieve the expansion. The transcripts in Samoan were glossed into idiomatic English. Where examples are discussed, a literal translation is also provided.

RESULTS

Aʻoga Amata A

*Penny and Pocket*

In this book experience, the teacher read the story with the children listening attentively. The teacher read slowly and with emphasis, but deferred interaction until after the story had been read. In this way, the children had the opportunity to hear the text without modification by the teacher.

Three kinds of tactics were used to initiate talk about the story.

1. A default tactic. After reading the story, children are invited to display their knowledge of the story, but this is limited to recalling the names of the characters. For example:
Teacher [Returning to page 2 and 3 and pointing to the illustration of the kitten]: What’s the kitten’s name?
Child 2 Pocket.
Teacher Pocket. Good.

Such a tactic (initiation, response, repetition of response and evaluative comment) is used in lieu of expanding the children’s oral language. Nothing is added to the child’s response and no perspective is taken on the story. The default tactic appears to be used to reinforce aspects of narrative structure, in this case, memory of the names of the characters (rather than remembering how the kitten came to be called Pocket).

2. Problem solving with elaboration. The teacher responds to a child’s question by rereading the text and allowing the child to answer the question for him or herself. In the reading, the teacher emphasises the item and adds detail.

Child 3 [Pointing to the bottle from which the kitten is drinking]: What’s this one?
Teacher Let’s read the story to find out. [Teacher rereads page 3.] Pocket is too small to lap milk from a saucer. Bianca feeds her milk from a baby’s bottle. What’s it called?
Children Baby’s bottle.
Teacher Yes. Bianca probably bought the bottle from the chemist.

3. Invitation to make an evaluative comment about the story. The child is given the opportunity to elaborate her initial response.

Teacher Did you like the story?
Child 2 Yes.
Teacher Why?
Child 2 I like animals.

O La’u Pusi i Totonu o le Pusa (My Cat Inside the Box)

In this book experience, the following tactics were used to expand the children’s utterances as the story was read with the children.

1. The teacher asks an elicitation question targeting a detail that can be answered from an accompanying illustration, then expands the child’s reply. In this example, a colour adjective is sought.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>O le a le lanu o le pusi?</td>
<td>What is the colour of the cat?</td>
</tr>
<tr>
<td>Child</td>
<td>E lanu ’ena’ena.</td>
<td>The colour brown.</td>
</tr>
<tr>
<td>Teacher</td>
<td>Ioe, e lanu ’ena’ena. E lanu ’ena’ena ona fulufulu, ma o lo’o nofo i totonu o le atigapusia lusitusi lanu ’ena’ena.</td>
<td>Yes, the colour brown. It’s got brown fur, and it is sitting in a box with brown stripes.</td>
</tr>
</tbody>
</table>

The target expression is repeated by the teacher and incorporated in more detail about the picture.
Adjectives are not a clearly defined class of word in Samoan and are used somewhat differently from adjectives in English. For example, colour words usually follow the noun:

O le pusi lanu ‘ena’ena  
The brown cat.  
(The cat colour brown).

However, adjectives can also be used statively:

E lanu ‘ena’ena ona fulufulu  
Her fur is brown.  
(The colour brown her fur)

2. Children echo a part of the story but use a higher frequency verb and alter the perspective of the text. The teacher concludes by offering a comment at a higher level of generality.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>O le pusi mai Samoa e mana’o e siva.</td>
</tr>
<tr>
<td>Child 1</td>
<td>E fia siva le pusi.</td>
</tr>
<tr>
<td>Child 2</td>
<td>E iloa fo’i e le pusi siva.</td>
</tr>
<tr>
<td>Teacher</td>
<td>E poto fo’i le pusi ia e siva.</td>
</tr>
</tbody>
</table>

A feature of this example is the experimentation with mental state verbs. The verb ‘fia’ is a general verb commonly used by young children to signal a need. The text uses a more specific verb ‘mana’o’ (wants). The child has looked at the picture and made a comment about the cat. The second child has also used a reasonably frequent comment (‘knows how to + action verb’). The teacher appears to be extending the structure used by the second child, with ‘it’s also a clever cat at dancing’. The comment illustrates the different way in which adjectives are used (‘E poto le pusi’, or ‘Is clever the cat’). In this expression, the adjective has taken on verbal characteristics.

3. The teacher recasts the child’s utterance so that it is well-formed. In some examples the recast is embedded in a more complex phrase.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>Lamata.</td>
</tr>
<tr>
<td>Teacher</td>
<td>loe, e lanu meamata.</td>
</tr>
<tr>
<td>Child</td>
<td>Va’ai lo (le) mata.</td>
</tr>
<tr>
<td>Teacher</td>
<td>O mata o le pusi.</td>
</tr>
<tr>
<td>[The child has shortened ‘lanu meamata’ to ‘lamata’.]</td>
<td>Yes, the colour green.</td>
</tr>
<tr>
<td>See the eye.</td>
<td></td>
</tr>
<tr>
<td>The eyes of the cat.</td>
<td></td>
</tr>
</tbody>
</table>

4. A child responds to a question using a general category word which is replaced by an appropriate specific word by another child, and the teacher provides additional words.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>O le a le mea lea e taalo ai le pusi?</td>
</tr>
<tr>
<td>Child 3</td>
<td>Taalo i le masini.</td>
</tr>
<tr>
<td>Child 1</td>
<td>O le kita, e iloa e K ta le kita.</td>
</tr>
<tr>
<td>Teacher</td>
<td>O le ukulele po’o le kita fo’i.</td>
</tr>
</tbody>
</table>
A‘oga Amata B

Too Little

The following tactics were observed during this storytelling episode.

1. A teacher’s comment sets up a situation where the illustration suggests a problem to the children and it is this they attend to in their talk.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Emma’s not happy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>Move the bed.</td>
</tr>
<tr>
<td>Teacher</td>
<td>Yes, that might help.</td>
</tr>
</tbody>
</table>

The comment by the teacher appears to direct the children’s attention to the illustration. The illustration prompts the children to suggest how the father might help the situation by moving the bed under which Emma is hiding with her animals.

In the following example, the teacher uses the illustration to shape a paraphrase of the text.

| Teacher       | See, so the whole family took Emma to the park as a special thanks to Emma. |

The indeterminacy of the picture then promotes a child’s question.

<table>
<thead>
<tr>
<th>Children</th>
<th>Where’s Emma?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Yes, I wonder which person is Emma?</td>
</tr>
</tbody>
</table>

The children guess pointing to different children in the picture. The teacher then sets up a way to solve the problem.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Well, let’s look back and see what Emma is wearing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>[Children responding to the picture of Emma on page 5.]</td>
</tr>
<tr>
<td></td>
<td>Yellow pants.</td>
</tr>
<tr>
<td></td>
<td>Pink top.</td>
</tr>
<tr>
<td></td>
<td>Flowers on her pants.</td>
</tr>
<tr>
<td></td>
<td>Yellow hair.</td>
</tr>
<tr>
<td></td>
<td>Ponytail.</td>
</tr>
<tr>
<td>Teacher</td>
<td>Well let’s remember those clothes. [Shows the children the last picture.] Now who is Emma?</td>
</tr>
<tr>
<td>Children</td>
<td>She’s standing on the top of the ladder.</td>
</tr>
</tbody>
</table>
O lo’u Tina Matua

Tactics used in this storytelling episode included the following.

1. The teacher completes responses initiated by children and then reads on.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children: On seeing the book, call out: O le  ... O le  ... O le tina.</td>
<td>The ... The ... The mother.</td>
</tr>
<tr>
<td>Teacher: O le tina matua.</td>
<td></td>
</tr>
</tbody>
</table>

2. The teacher leaves gaps for children to fill.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher: O tina matua e masani ona o asiasi i le ...</td>
<td>Grandmothers are used to visiting the ...</td>
</tr>
<tr>
<td>Children: A’oga amata.</td>
<td>Samoan preschool.</td>
</tr>
</tbody>
</table>

3. The teacher captions a picture and then asks for confirmation. Children ignore the confirmation, requesting instead information about the content of the picture. The teacher uses the request to continue the narrative, but relates it to the situation at the a’oga amata.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher: A o la tina matutua e masani ona o ma ave a latou meaalofa. A ‘ea?</td>
<td>When grannies visit they take presents. Isn’t that right?</td>
</tr>
<tr>
<td>Child 1: O a?</td>
<td>What (present)?</td>
</tr>
<tr>
<td>Teacher: O ‘ie e su’i ai ofu, pe fai o latou mu’umu’u. O le tele na o isi a’oga e fai ‘ie faitaga o tama’it.</td>
<td>Materials to sew clothes, to make long dresses. At many other schools they make lavalava for the children.</td>
</tr>
</tbody>
</table>

4. The teacher reads a section of the text and asks a clarification question that relates the story to a grandmother who frequently does the garden at the a’oga amata.

<table>
<thead>
<tr>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher: [Looking at page 4] O nisi tina matutua e masani fo’i ona o aua e iai le fa’ato’aga a a’oga amata, va’ai atu va’a va’a pei o le tatou fa’ato’aga i lafo e masani lava ona sau le tatou tina matua ia, o a fai’i ...</td>
<td>Other grannies are also used to coming because there is a garden, and when they see it needs weeding, they weed it, now who is that ...</td>
</tr>
<tr>
<td>Children: O Sinatala, O Sinatala!</td>
<td></td>
</tr>
</tbody>
</table>
5. The teacher switches from the narrative in the text to oral narrative based on a real experience at the a’oga amata. This tactic produces a personalised version of the written story to which the children contribute.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E va’ai mai la tina matua ua le manaia le tatu fale, e fa’aalo go atu tatu ua ola mai lona moa.</td>
<td>When that granny sees the place is not nice, we hear the lawn mower start up.</td>
</tr>
<tr>
<td>Child 2</td>
<td>E sau lava ia moa le vao.</td>
<td>She comes and cuts the grass.</td>
</tr>
</tbody>
</table>

6. The teacher reads a section of text and relates the narrative event to a real life event. This opens up the opportunity for children to provide referential material (the name of Peni’s grandmother).

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[Looking at page 5] O nisi aso e sau tina matua aumai fo‘i fugala’au e fa’amanaia ai le tatu fale. E pei o le tina o Peni. O ai fo‘i le igoa o le tina o Peni? Peni, o ai le igoa o le tina matua o ‘oe?</td>
<td>On other days, grannies bring flowers to make our house pretty. Like Peni’s mother.</td>
</tr>
<tr>
<td>Peni</td>
<td>O Ema.</td>
<td>What is Peni’s mothers name? Peni, what is the name of your grandmother?</td>
</tr>
</tbody>
</table>

7. The teacher uses children’s recent experience of the theme of the story to narrate similar events, allowing the teacher to rejoin with a comment.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 3</td>
<td>O ... O ... Ai fo‘i?</td>
<td>Who is it?</td>
</tr>
<tr>
<td>Child 4</td>
<td>O Eseta, na sau Eseta ma tatu sukalati.</td>
<td>Eseta, Eseta comes with our chocolates.</td>
</tr>
<tr>
<td>Teacher</td>
<td>O Eseta. O ai fo‘i le isie?</td>
<td>Eseta. And who else?</td>
</tr>
<tr>
<td></td>
<td>Pei o Puao na sau ma tipolo ma apu.</td>
<td>Like Puao who comes with lemons and apples.</td>
</tr>
</tbody>
</table>

8. The teacher completes the interaction in a more generalised way.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>Le tina o John ... Na aumai ai ...</td>
<td>The mother of John ... She brought ...</td>
</tr>
<tr>
<td>Teacher</td>
<td>O tatu alofa na, a tamaiti.</td>
<td>Those are our love (gifts), aren’t they children.</td>
</tr>
</tbody>
</table>
The children make suggestions that parallel an example given by the teacher. The teacher summarises the suggestions and makes a comment.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fai mai, e fia fa’alogologo lava tamaiti i tala a tina matua. Pei o le tala o Sina ma le tuna.</td>
<td>And of course, children like to listen to stories from grannies. Like the story of Sina and the Eel.</td>
</tr>
<tr>
<td>Child 2</td>
<td>Po’o le tala i a Tui ma Tui.</td>
<td>Or the story of Tui and Tui.</td>
</tr>
</tbody>
</table>

The teacher reads and leaves a gap for children to fill. When it is not filled she completes the statement herself.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Samoan</th>
<th>English equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E poto fo’i tina matua e ...</td>
<td>Grannies are good at …</td>
</tr>
<tr>
<td></td>
<td>O le tina matua o K e iiloa ta le ukulele.</td>
<td>K’s granny knows how to play the ukulele.</td>
</tr>
</tbody>
</table>

The children ask a clarification question. The teacher responds with a repetition of the story line.

| Child 1       | A ta le a?                                                             | Plays what?                                                                        |
| Teacher       | O le tina matua o K e iiloa ta le ukulele!                            | K’s granny knows how to play the ukulele!                                           |

DISCUSSION

Relative Absence of Language Switching

In the transcripts there are relatively few examples of language switching. There are three likely explanations for this.

First, the children in each group included children who had the language of the story as their stronger language. It was these children who were active in responding to the story, rather than the children who had the language of the story as their weaker language.

Second, the teachers were aware of the purpose of the study and have a policy on language switching that is constantly being reviewed in staff and parent meetings. The effect of observing and audiotaping the reading would have reduced the spontaneity of language use decisions.

A third reason could be the routine developed when favourite books are being read once again. The fact that they have already been discussed in the language of the text is likely to predispose the participants to use the same language in subsequent discussions.
Default Tactic
The default tactic appears to be directed at identifying the names of the people and animals in the story. Less frequently were ‘wh’- questions (who, what, when, where and why) directed at actions, circumstances, reasons and mental states.

Problem Solving
A particularly productive tactic used in the English language stories followed a problem solving sequence. Children’s clarification questions were used to gather children’s thoughts before returning to the story in search of clues.

Parallel Stories
The most interesting tactic was the development of a parallel story with the reading of *O Lo’u Tina Matua* (*My Grandmother*) where the children told stories based on their experiences in parallel to the story reading. The teacher’s tactic for achieving this was first to relate the narrative event to a real life event. Then, using the children’s recent experience of the theme of the story, the teacher blends those events into the story structure.

Quality Indicators
Of particular interest to the staff of the centres was the question of what represented quality interaction during the rereading of a favourite book.

One approach to the issue was to list the opportunities given and taken up by participants for expanding different kinds of meaning within the narrative structure of the stories. Then these opportunities were compared with the possible scope of meaning expansion within the story itself. If about a third of the opportunities were being taken up within any story reading experience, then that would seem a reasonable start.

CONCLUSION
There were a variety of tactics being used that seemed to suit the story reading situation on each occasion. In each story, children were given opportunities to participate in at least one extended discussion, either using a problem solving tactic (English) or through blending personal experiences with the narrative (Samoan). Generally there was an absence of language switching suggesting that children were gaining experience with the literate expression of each language.

ACKNOWLEDGEMENT
The author wishes to acknowledge the assistance of Mr Jim Dickie, Victoria University of Wellington, with this paper.

REFERENCES


TRANSCRIPTION CONVENTIONS

Conventional punctuation has been used. Full stops are used to indicate pauses, and question marks to indicate questions.

Participants are identified as teacher, child or children (when there is a chorus response).

Roman type: According to context, utterances in Roman type refer to Samoan, English, or an English equivalent.

Bold type: Language switch.

Roman type in parentheses (…): Literal translation, Samoan to English.

Bracketed information [ ]: Commentary on what is happening.

APPENDIX

Information about the Centres

<table>
<thead>
<tr>
<th></th>
<th>Centre A</th>
<th>Centre B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roll</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 2 years</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2 years and over</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td><strong>Ethnicity of children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samoan x Samoan</td>
<td></td>
<td>Samoan x Samoan</td>
</tr>
<tr>
<td>Tuvalu x Samoan</td>
<td></td>
<td>Cook Is x Samoan</td>
</tr>
<tr>
<td>Māori x Samoan</td>
<td></td>
<td>Fiji Indian x Samoan</td>
</tr>
<tr>
<td>Tongan x Samoan</td>
<td></td>
<td>European x Samoan</td>
</tr>
<tr>
<td>Fijian x Samoan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European x Samoan</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifications</td>
<td>Diploma of Teaching ECE (2)</td>
<td>Diploma of Teaching ECE (1)</td>
</tr>
<tr>
<td>Number</td>
<td>Diploma of A`oga Amata (2)</td>
<td>Certificate of A`oga Amata (2)</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>In the church hall</td>
<td>In their own house</td>
</tr>
<tr>
<td>Operation</td>
<td>Full time childcare</td>
<td>Full time childcare</td>
</tr>
<tr>
<td>Licensed</td>
<td>1992</td>
<td>1997</td>
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</table>
### Information about the Children in the Study

<table>
<thead>
<tr>
<th>Centre</th>
<th>Child</th>
<th>Gender</th>
<th>Age Years – Mths</th>
<th>Stronger Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre A</td>
<td>1</td>
<td>M</td>
<td>4 – 6</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>M</td>
<td>4 – 1</td>
<td>Samoan</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>F</td>
<td>4 – 2</td>
<td>Samoan</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>M</td>
<td>4 – 5</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>F</td>
<td>4 – 7</td>
<td>English</td>
</tr>
<tr>
<td>Centre B</td>
<td>6</td>
<td>M</td>
<td>4 – 9</td>
<td>Samoan</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>M</td>
<td>4 – 2</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>F</td>
<td>4 – 8</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>F</td>
<td>4 – 3</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>F</td>
<td>4 – 7</td>
<td>Samoan</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>F</td>
<td>4 – 2</td>
<td>Samoan</td>
</tr>
</tbody>
</table>

### Information about the Teachers in the Study

<table>
<thead>
<tr>
<th>Centre</th>
<th>Teacher</th>
<th>Qualification</th>
<th>Experience (years)</th>
<th>Stronger Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre A</td>
<td>1</td>
<td>Dip Teaching (ECE)</td>
<td>6</td>
<td>Samoan</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Relieving teacher</td>
<td>2</td>
<td>Samoan</td>
</tr>
<tr>
<td>Centre B</td>
<td>3</td>
<td>Dip Teaching (ECE)</td>
<td>8</td>
<td>Samoan</td>
</tr>
</tbody>
</table>
Whānau Participation: Māori Immersion Students’ Transition to English

Mere Berryman and Ted Glynn

Mere Berryman is manager and kairangahau (researcher) of the Ministry of Education Group Special Education’s Poutama Pounamu Education Research and Development Centre. Ted Glynn is Professor of Teacher Education at the School of Education, University of Waikato.
Whānau Participation: Māori Immersion Students’ Transition to English

Mere Berryman and Ted Glynn

Abstract

This paper describes whānau (immediate and extended family), kura (school), student and researcher collaboration that developed as part of a community-initiated home and school programme to improve students’ transition from Māori to English language classrooms. Prior to this initiative, these students had received formal instruction in Māori immersion programmes with little formal instruction in English. After a 10-week programme devised by this school and community, the researcher found that tutors had efficiently implemented the programmes and that all Year 8 students were able to read English stories and talk about them at age appropriate levels. These students also displayed improved rates of writing in English. Importantly they had also maintained their progress in reading and writing in Māori. The 10-week programme and results were replicated using a multiple baseline design, over a further three terms with the Year 7 and again with the Year 6 students. An active community response to questions about supporting children’s transition to English from Māori immersion programmes had added value to their children’s educational successes.

INTRODUCTION

The New Zealand Ministry of Education is currently committed to two priority areas:

• reducing educational underachievement; and

• ensuring all New Zealanders have skills that enable participation in the 21st century (Ministry of Education, 2003).

Improved literacy learning for students is a critical component of meeting these two goals. Literacy has not only been found to contribute to achievement but it is also a generic skill crucial for full participation in the 21st century. Language is central to literacy learning; it is the medium through which we communicate with others, and through which we access knowledge. The ability to express oneself in one’s language is an element of successful human development. For Māori and for other indigenous peoples, being literate in one’s traditional language is a further affirmation and expression of one’s identity. Literacy connects the people to the language and the culture of their ancestors. Use of any language is a proactive assertion of one’s place in the world. In the context of education, each language is a tool through which people learn to know and understand the world in their own unique way. Language use has the effect of building confidence within students and within their teachers as well as demonstrating to the community the preciousness of their language, and hence their culture.

All languages have developed in response to language use by their speakers (Waite, 1992). Each language has its own forms of specialist vocabulary that have emerged from the settings in which those languages have been used. Some languages, however, are spoken more often, in more places, and by more people. Speakers of politically and economically powerful language communities often perpetuate this dominating position when speaking to people from less politically and economically powerful language communities. While language provides a powerful tool for group cohesion and inclusion, it can also provide a means of exclusion. Language can be used to stigmatise, trivialise, marginalise or render invisible those values, beliefs and practices of one language community that are not represented

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1 This paper is based on a master’s thesis (Berryman, 2001) that has also been edited and published by NZCER (Berryman & Glynn, 2003).
within the language of another. Thus language becomes a tool by which these speakers retain positions of power, authority and ‘superiority’ (Waite, 1992; May, 2002). Such marginalisation of the Māori language by the majority English language has certainly been the case in New Zealand.

In the 1970s when the implications of years of English submersion education on bilingual Māori speakers in New Zealand began to emerge (Benton, 1978), a drive to revitalise the Māori language began in earnest. At about that time, Kara Puketapu spoke at a hui taumata in Wellington. After visits around the country, he voiced his concerns that kaumātua, because of diminishing levels of Māori language proficiency, were increasingly seen to be unable to assume their speaking role on the marae (personal communication from te kōhanga reo kuia from Tauranga Moana, 2003). In the early 1980s these concerns saw the emergence of a Māori-developed and controlled early childhood movement (te kōhanga reo) teaching Māori language in an immersion context. Within the kōhanga reo setting, Māori, as the target language, was nurtured. This movement was driven and supported by kuia and kaumātua whose Māori language had survived through an education system that had all but rendered their traditional language invisible. Māori was learned in the kōhanga reo and English was learned in the community. Since this time Māori have increasingly and actively sought the revitalisation and retention of their language at an iwi (tribal), hapū (sub-tribal), whānau (extended family) and individual level (Smith, 1995). For the past 20 years, the kōhanga reo movement has led an increasing number of people both to learn in and teach through the medium of the Māori language. Whānau (family members) of kōhanga reo graduates started the wave of Māori medium education in primary schooling.

Today the resurgence of Māori language is occurring at all levels of the educational sector, from early childhood through to tertiary. From the early 1990s this movement has seen growth in Māori bilingual and immersion education, particularly in the urban areas where many Māori are now living (Keegan, 1996). The Ministry of Education’s shift in policy direction (Ministry of Education, 1988) enabled Māori language to be taught as the centre of the learning process and as the medium for delivery of the entire curriculum, rather than as a separate subject within it. The development of rumaki (classrooms/schools that teach through the medium of the Māori language) and kura kaupapa Māori (designed by Māori for Māori to uphold Māori values and beliefs) have focused on two objectives. These objectives are the promotion of higher levels of achievement for Māori students and the revitalisation and maintenance of the Māori language (Education Review Office, 1995). Although increasing numbers of students are now immersed in and learning through the medium of the Māori language, the intended language outcome is bilingualism. However, a smooth transition from Māori to English learning sites is one of the challenges faced by many learners, whānau and teachers from these facilities.

Māori medium educators are concerned with the lack of consistent information and resources available to guide transition into English. These concerns include questions around when and how transition should occur so that neither language is compromised (Berryman & Glynn, 2003). Although transition can and does happen at many different year levels, one of the most challenging transition points for students can be from primary to secondary school. At present there is evidence to suggest that many teachers in Māori language settings are implementing one of three options. The first option is to do nothing that will interfere with the ongoing learning that is occurring through and in the Māori language. With this option teachers merely wait until the student enters English medium education. Transition such as this means that the student is ill-prepared and at risk of being diagnosed as having language and literacy deficiencies in the new classroom target language. Failure to acknowledge the students’ prior experiences in the traditional language that they have learned in exacerbates the problem. Diagnosis such as this can result in feelings of failure and reluctance to engage in academic programmes. The second option is to teach English transition once students reach a specific age group. The third option is to teach English transition to all students within a specific class (year) group. Of concern also are the numbers of students removed on an ad hoc basis from Māori language settings by parents who are concerned that their children also need to learn English if they are to succeed with their education.
Due perhaps to the challenging nature of accurately assessing Māori language proficiency, none of these options appears to take into consideration the identified level of language or literacy proficiency of these students. All options appear instead to assume that cohorts of students are all at similar levels of preparedness for transition to English. Further, while some of these options may use strategies from ESOL (English for speakers of other languages) settings, none of these options appears to fully use the bilingual language skills and knowledge of the students themselves or the language skills of members of their home community. The lack of evidence detailing effective transition practices, the lack of consistent transition application and/or methodology, the lack of active monitoring and evaluation of specific transition practices and the lack of informed sharing of information between home and school are a concern for many educators and school whānau.

Bilingualism

Additive bilingualism and subtractive bilingualism are important concepts in language learning. As previously noted, learning a second language can serve assimilationist purposes through the operation of subtractive bilingualism. For example, the teaching of English as a second language has historically aimed at rapidly integrating students from minority language groups into majority language use. In this context, the second language comes to replace the first language. Assimilationist ideology results in the repression of the home and minority language (Wong-Fillmore, 1991) and tends to maintain the dominance of the majority language throughout society (Baker, 2001). Majority language speakers then behave in ways that belittle or marginalise heritage languages of minority groups. This process is still evident within contemporary New Zealand society, which values languages that enhance opportunities for international trade relations and economic growth (such as Japanese and Korean) over languages that underpin the culture and well-being of the tangata whenua of Aotearoa. Such a utilitarian approach (Bishop & Glynn, 1999) appears to ignore the cognitive and social benefits that can arise from a commitment to bilingualism. These benefits include gaining a deeper understanding of New Zealand’s history of language and cultural contact, a greater experience and appreciation of linguistic and cultural diversity, as well as personal satisfaction from participating in Māori language revitalisation and maintenance.

Research by Cummins (1989) and Lo Bianco (1987), cited in Waite (1992), indicates that intellectual benefits accrue to bilinguals in the form of increased control over their ability to manipulate language, more divergent thinking and greater mental flexibility. Included amongst this mental flexibility is the ability to gain a greater insight into the value systems of another culture, its knowledge bases and its preferred lifestyles. Such benefits not only increase cultural understanding, but also greatly enhance the ability to understand one’s own cultural world view and its relationships to others.

When a second language is learned without pressure to replace or reduce first language use, then bilingual learning can take place. According to Baker (2001), in a context of additive bilingualism, people from language minorities can become fluent in both languages, have positive attitudes to both the first and the second language and maintain ethno-linguistic vitality in the language community. Hence, learning a second language might bring about increased harmony between speakers from different language groups. Different language speaking groups learning each other’s language, as happens in Canada, may lead to communities, politicians and education professionals advocating dual language learning. This type of policy is identified as additive bilingualism, since its aims include students becoming proficient in both languages. Bilingualism in education offers cognitive, cultural and social benefits to participating individuals (Waite, 1992; McCaffery, 1999; May, 2002).
Importance of the Social and Cultural Context

While children are learning at school, they are participating in at least two major socialisation settings: home and school. McNaughton and Glynn (1998) consider that a variety of different theoretical positions can be used to talk about the nature of the relationships between home and school. These include a behaviour analysis perspective (Wheldall & Glynn, 1989), a family resource and cultural capital approach (Nash, 1993), a developmental systems model (Tangaere, 1998), a socio-historical perspective (McNaughton, 1995) and a kaupapa Māori position (Smith, 1992; 1995). There is strong general agreement across these positions that family and school relationships are vital to children’s literacy achievement at school (Glynn, Berryman, & Glynn, 2000; McNaughton, 2002). Responsive, social contexts for learning (Glynn, 1985; 1987) address the issue of imbalance of power that can arise when teachers from a powerful majority language and culture impose their beliefs and understandings and their world view on students from a less powerful language and culture (Bishop & Glynn, 1999). These principles suggest that Māori immersion students can benefit from teachers employing in their classrooms a culturally-linked pedagogy that promotes the inclusion and engagement not only of students and peers but also of whānau and community members.

This paper describes the vital contribution made by whānau (immediate and extended family) to maintain their children’s Māori language while at the same time improve their children’s transition to English language classrooms.

METHOD

The Initiation

The lead researcher was invited to a community meeting held at the kura. Community whānau members and kura staff were concerned that their Year 8 fluent Māori immersion students who had not been taught to read and write in English were being unduly challenged in Year 9 by the secondary school system. At Year 9, students from this kura were consistently failing to achieve at the same or higher academic levels as they had at kura, and many had been failing within the secondary system. Once the researcher had agreed to help, the parameters of the programme were collaboratively set. A reading tutoring programme and two writing strategies were used to introduce English literacy skills to these senior students.

Research Design

The programme took place over one year. It began at the beginning of term four with the group of Year 8 students and lasted for 10 weeks. In term one of the following year, the programme was introduced to the new group of Year 8 students. After a further 10 weeks (one more term) it was introduced to the third group who were in Year 7. Each time the programme lasted for 10 weeks. This design allowed for built-in evaluation of the programme by means of a multiple baseline comparison across three groups of students with repeated measurements taken across all students at one-term intervals from pre-programme to maintenance. The effectiveness of the English transition programme was evaluated in terms of process (treatment integrity or treatment implementation) as well as outcome measures taken within and between groups.

Participants

Students

Data were gathered from 21 kura students who had been in Years 6, 7 and 8 classes during the time of the project. All students had been in a Māori language immersion programme for the majority of their schooling, most since kōhanga reo. Only one had received any formal instruction in English.
Liaison teacher

The teacher of the Year 7 and Year 8 students was critical to the success of the programme. She agreed to liaise with the community and took responsibility for collaborating with the researcher in implementing all aspects of the programme delivery, evaluation and data collection. Her specific responsibilities were extensive and required a great deal of professional expertise and commitment. She took direct and full responsibility for the implementation of the reading and writing strategies with the programme students. She approached parents and whānau members of these students through the board of trustees to explain the nature of the transition project as well as the nature of the training and support provided and the commitment required of the whānau and community tutors. She also monitored tutors’ weekly tutoring, assisted in the accessing of appropriate reading material and provided informal feedback on their progress. In addition, she regularly supplied the researcher with tapes of the tutors’ tutoring, then shared with them the formal feedback provided by the researcher. Further, she ensured that the students, teachers and whānau members welcomed the researchers whenever they were at the school and ensured that training and assessment tasks could be efficiently carried out in a welcoming environment. The emphasis was on supporting the kura to continue their consultation and partnership with their community. Students’ literacy growth in both languages was seen as a process that was occurring simultaneously at home and at school through the careful coordination of activities and exchange of information between these two settings (McNaughton & Glynn, 1998).

Parents, whānau and community members

Immediately prior to the programme, a community person was trained as an English reading tutor for each of the programme students. In addition, many students also had a parent who had attended the training and who could use the tutoring procedure in the home. Some of the parents also become tutors in the school. People in this group included kaumātua, kuia, parents, grandparents, young men and young women. At least one of the tutors, a kuia, remained as a tutor with all three groups.

The writing responder

The researcher trained a young person from outside the community in the writing strategies. Each week the ‘writing responder’ responded to a story written in English by each of the English programme students then returned the writing books back to the liaison teacher for further exchanges.

Evaluation

The effectiveness of the reading and writing programme was evaluated in terms of process (treatment integrity, or treatment implementation) as well as outcome measures taken within and between student groups. After the completion of the programme, collaborative storytelling was used to develop a shared understanding with participants of how their role in the programme had contributed to the success of the outcomes. This collaborative story is presented in detail elsewhere (Berryman & Glynn, 2003).

Process measures (treatment integrity)

Following training, repeated measures of parent, whānau and community reading and writing tutoring were taken in order to establish the degree to which target programme strategies were being implemented (Berryman & Glynn, 2003).

Outcome measures (within student groups)

Although the programme concentrated on developing the English language only, the community and researcher monitored changes in reading and writing in both English and Māori to determine that the learning of the new skills in English were in no way detrimental to the progression of skills in Māori. The project began with the collection of pre-programme information on students’ reading and writing achievement in both English and Māori. The Māori
assessment data are presented and reported on elsewhere (Berryman & Glynn, 2003). Assessments took place when the English transition group had completed 10 weeks of the programme. Once the assessments had been completed (usually within the week) the training of tutors for the next group of students going into the programme took place and the programme began for the next group of students. Reading and writing data in English and in Māori were gathered pre- and post-programme and at maintenance for all three groups of students.

**Reading Assessment Procedures**

*The identification of starting points for reading texts*

**Burt Word Recognition Test**

The Burt Word Recognition Test (Vernon, undated) was used as a guide for determining a safe reading level for the reading assessment of English texts. The procedure for administration was not followed precisely; instead a more low key approach was applied. Students were told that this was Burt, a list of English words that started off easily but then got pretty hard. They were asked to take as much care with the easy ones as they would when the words started to get difficult. They were also told that they could try words or pass over words and that they could stop if they thought it was getting too difficult. Once five words were either read incorrectly or passed on, the test was stopped.

**Reading of texts**

The reading assessment procedures in English used the School Journal reading levels identified using the Elley noun frequency count (Elley, 1975). The English reading assessment tool used 30 texts at increasing levels of difficulty. The following assessment procedures were used with each of the texts selected:

- preview of text. The researcher began the session with a brief discussion of the story relating it to the reader’s experience. Students were then given three minutes of uninterrupted time to read the story themselves;

- oral recall questions. Students were then asked three prepared, oral questions about the section that they had read. If the student did not succeed in answering any of the questions correctly the researcher chose another book at an easier level. If the student got at least one correct answer the assessment was continued with that book;

- three-minute oral reading samples. This was a three-minute, audiotaped sample of students’ oral reading from a text at their appropriate instructional level. The reading was accurately timed and the audiotapes were then analysed for reading accuracy and reading rate (number of correct and incorrect words per minute); and

- oral cloze (comprehension) task. A section of the identical level text was used for the cloze with target words blanked out. The student was provided with a cloze card that provided them with the cloze text and some illustrations. The researcher read the story to the student who was asked to supply words that would fit in the gaps. Exact words (the exact word used in the text) and appropriate word substitutions (words that retained meaning within the text) were accepted. The individual responses to the oral recall section and the oral cloze task were combined to give the measure of oral comprehension.

The reading assessments continued until students reached the maximum book level at which they could still read at an instructional level. This was determined each time by any two of the following three criteria:

- reading accuracy level of 90% or higher;

- correct reading rate of 21 words or more per minute; or

- combined oral comprehension score of 41% or more.
Writing Assessment Procedures

Collecting the writing samples

Writing assessments, collected in English and in Māori, were modelled on the English Standard 2 Survey’s use of unassisted writing samples (Hamilton Education Board Resource Teachers of Reading, 1989). Although students were free to write on any topic they liked, six A3-size photographs and 10 prompt words per photograph were used to help motivate students. The pictures showed familiar and positive interaction between adults and children in contemporary Māori settings. The researcher and liaison teacher also suggested further topics when individual students asked for assistance.

Up to 10 minutes were allowed for students to choose their topic and for a brief informal discussion. This did not involve any form of written planning. Next, students were instructed to begin their 10 minutes of writing, using pencil. The use of erasers was discouraged. At the end of 10 minutes pencils were collected and exchanged for pens. This exchange in writing instruments enabled the researcher to analyse the writing sampled in the first 10 minutes of writing only. Students were then asked to try to improve their writing in any way they could, this time using the pen. Five minutes were allowed for editing.

Analysis of writing assessment data

Assessment of writing accuracy employed a definition of errors that included punctuation, spelling, unrecognisable words, unclear messages, incorrect language structures and tenses. Analysis of writing samples provided data on writing rate, accuracy and quality (holistic ratings of ‘audience impact’ and ‘overall language quality’). Information was also gathered to measure the increasing number of more difficult words that students were using in their writing. Levels 1 to 3 (group 1), levels 4 to 6 (group 2), and level 7 words and beyond the top level of the Arvidson (1970) spelling lists (group 3) were the three groups of words in English. Group 2 and 3 words were combined to identify adventurous words in the writing samples. Raters, who were unaware of students’ names or the sequence in which the writing samples had been gathered, provided a holistic rating of audience impact and language quality for every writing sample.

Parent and Whānau Training

Pause Prompt Praise plus preview and review

These reading tutoring procedures encouraged whānau and community tutors to preview the story with their student before the story was read and then to tutor their child using the Pause Prompt Praise procedures. Over the past 25 years these procedures have been well-researched and described in New Zealand (Glynn, McNaughton, Robinson, & Quinn, 1979; McNaughton, Glynn, Robinson, & Quinn, 1981; Glynn & McNaughton, 1985; Medcalf & Glynn, 1987); in Australia (Houghton & Glynn, 1993); and in Great Britain (Wheldall & Mettem, 1985). These procedures have been successfully used with reading when English has been the first language (Glynn, Berryman, & Glynn, 2000) and when English has been the second language (Glynn & Glynn, 1986).

The procedures involve first pausing when a reader makes an error (to allow opportunity for reader self-correction without tutor help). Where the error is not self-corrected, tutors offer different types of prompts to assist the reader with the meaning of the word. The first type of prompt is the read-on or read-again prompt, which assists readers to pay closer attention to the context of the sentence, where the error occurred. The second type of prompt provides the reader with information or clues about the meaning of the word. However, where the error indicates the reader has already understood the meaning of the word the tutor may use the third type of prompt using phonemic or visual information. Tutors were also trained to employ specific praise to reinforce readers’ use of independent strategies such as self-corrections and corrections following tutor prompts. Tutors were encouraged to conclude their tutoring sessions by reviewing the story read with their child.
Responsive Writing Procedures

The first writing procedure, responsive written feedback (Glynn, Jerram, & Tuck, 1986; Jerram, Glynn, & Tuck, 1988), encouraged the young person from outside of the community, and unknown to the students, to write regular, weekly, brief and personalised responses to the student’s writing. The strategy was to respond in writing to the messages conveyed within the piece of writing and not to focus upon structure, error correction or evaluative comments. This person was encouraged to respond to what they were able to understand of the messages in the students’ stories rather than simply responding to errors. The teacher was also trained to monitor and collect 10-minute writing samples of unassisted writing from the students. Writing done in the classroom was then mailed to the responder who completed her responses and returned the responsive writing books ready for the next week’s writing time. Once students were in the programme this procedure was carried out for at least 10 writing exchanges.

Structured Brainstorming

The second writing procedure, a structured brainstorm (Whitehead, 1993), encouraged the teacher to talk in English with the programme students about a set writing topic and then to support the students in generating and organising English words related to the topic. Students were assisted to do this by using a ‘structured brainstorm sheet’. Regular and focused teacher and student ‘brainstorms’ of interesting words were an important aspect of the programme carried out at least once a fortnight.

RESULTS

Outcome Measures: Reading

Figure 1 presents English reading outcome data for three sets of students (Year 8, Year 7, Year 6) on three different measures (book level, reading accuracy and oral comprehension). Each of the columns of data represents a measure taken at least one term apart. Data show pre- and post-programme changes in the targeted language, English. The shaded ‘staircase’ line indicates the times at which each group of students entered the English transition programme.

Figure 1: Pre- and Post-Programme Changes in Book Level, Accuracy and Oral Comprehension for Students Reading in English (multiple baseline format)

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>BOOK LEVEL</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>24 28 29</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Year 8 Students (n=7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 7 Students (n=7)</td>
<td>20 21 24 29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 6 Students (n=7)</td>
<td>22 22 23 29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>% ACCURACY</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90</td>
<td>91 94 97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 8 Students (n=7)</td>
<td>88</td>
<td>88 95 94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 7 Students (n=7)</td>
<td>88</td>
<td>89 93 97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 6 Students (n=7)</td>
<td>33 38 26 36</td>
<td>69 53 37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| MEASURE                  | ORAL COMPREHENSION |           |           |           |
|--------------------------|                    | 33 38 26  | 69 53 37  |
| Year 8 Students (n=7)    |                    | 41 45 47  |
| Year 7 Students (n=7)    |                    | 60 65     |
| Year 6 Students (n=7)    |                    |           | 65        |
Progress through increasing book levels provides the most important measure of reading outcome data. However, book level should be viewed alongside other supplementary and supporting reading and outcome data provided by measures of percent accuracy and oral comprehension (Figure 1) and correct rate, incorrect rate and Burt word recognition (Figure 2). On the book level measure for reading in English, all three sets of students made major gains from pre-programme to post-programme, (four levels for Year 8 students, three levels for Year 7 students and six levels for Year 6 students). The multiple baseline format also shows further gains during maintenance, (one level for Year 8 students and five levels for Year 7 students).

On the percent accuracy measure, despite major gains in the book level being read, high levels of accuracy were maintained for reading in English by all students across all assessment points. Furthermore, there were also small increases in accuracy associated with the multiple baseline format.

On the oral comprehension measure, major gains were made in reading in English by Year 8 and Year 6 students from pre-programme to post-programme (gains of 36% and 28% respectively). However, there was a slight decrease in oral comprehension for Year 7 students immediately after the programme but this recovered by the follow-up assessment. Year 8 students showed a slight decrease at the first follow-up assessment but this had recovered by the second follow-up assessment.

Figure 2 presents further supplementary reading outcome data for the three sets of students on the measures of correct reading rate, incorrect reading rate and Burt word recognition. Again, despite the major increases in book level being read by all students at post-programme and follow-up assessments, correct rates remained between 53 and 78 words per minute. One exception to this was the sharp increase to 94 words per minute for Year 7 students at post-programme, although this returned to 65 by follow-up.

Data for incorrect reading rate for English reading, while generally low throughout, show a clear decrease for all three sets of students from pre-programme to post-programme. A decrease of two incorrect words per minute for Year 8 students and three incorrect words per minute for Year 7 and Year 6 students was shown. There was a further decrease of one incorrect word per minute at follow-up for Year 8 and Year 7 students.

Data on the Burt word recognition measure show evidence of steady increases over time, but also much sharper increases occurring at the assessment points following the programme.

*Figure 2: Pre- and Post-Programme Changes in Correct Reading Rate, Incorrect Reading Rate and Burt Word Recognition for Students Reading in English (multiple baseline format)*

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>CORRECT RATE</th>
<th>INCORRECT RATE</th>
<th>BURT WORD RECOGNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 8 Students (n=7)</td>
<td>59 53 70 78</td>
<td>6 4 4 3</td>
<td>49 59 66 75</td>
</tr>
<tr>
<td>Year 7 Students (n=7)</td>
<td>63 66 94 65</td>
<td>7 7 4 3</td>
<td>49 56 68 78</td>
</tr>
<tr>
<td>Year 6 Students (n=7)</td>
<td>60 60 77 62</td>
<td>6 6 5 2</td>
<td>43 50 65 75</td>
</tr>
</tbody>
</table>
Overall, reading data in Figures 1 and 2 indicate major gains in reading in English for all three sets of students. These gains are generally evident at the time when each set of students had completed their period of time in the programme. These students made gains of four to five levels in the difficulty of texts they could read successfully. While reading books at these increased levels of difficulty, they all maintained or slightly increased their high level of reading accuracy. Two sets of students displayed considerable gains in oral comprehension at post-programme, while all three sets of students showed marked gains by follow-up assessment. Rate of correct reading was maintained across increase in book level, while rate of incorrect reading reduced. In general, the pattern of these gains conformed to the multiple baseline format for reading in English (the target language).

Outcome Measures: Writing

Figure 3 presents English writing outcome data for three sets of students (Year 8, Year 7, Year 6) on four different measures (total words written, percentage of words written correctly, number of adventurous words written and percentage of adventurous words written correctly). Each column of data represents a measure taken at least one term apart.

Data in the right-hand section of Figure 3 shows pre- and post-programme changes in the targeted language (English). The shaded ‘staircase’ lines indicate the times at which each group of students entered the programme.

![Figure 3: Pre- and Post-Programme Changes in Total Words Attempted, Percentage of Total Words Accurate, Adventurous Words Attempted, Percentage of Adventurous Words Accurate for Students Writing in English (multiple baseline format)](image)

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>TOTAL WORDS</th>
<th>% ACCURACY</th>
<th>ADVENTUROUS WORDS</th>
<th>% ACCURACY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 8 Students (n=7)</strong></td>
<td>68</td>
<td>91</td>
<td>17</td>
<td>82</td>
</tr>
<tr>
<td><strong>Year 7 Students (n=7)</strong></td>
<td>67</td>
<td>87</td>
<td>18</td>
<td>72</td>
</tr>
<tr>
<td><strong>Year 6 Students (n=7)</strong></td>
<td>55</td>
<td>84</td>
<td>13</td>
<td>69</td>
</tr>
</tbody>
</table>

On the measure of total words written there were major gains for Year 8 and Year 7 students corresponding with the programme (33 words for Year 8 and 34 words for Year 7). There was also a smaller gain for Year 6 students (15 words) but these students had already displayed a major gain at the assessment point prior to the programme.
On the writing accuracy measure (percent accuracy), data in Figure 3 show that all sets of students maintained a high level of accuracy throughout the entire project (ranging from 83% to 93% across both targeted and non-targeted language). Only Year 6 students displayed a gain in accuracy corresponding with the programme (from 78% to 93%) for English writing. Overall, while all students markedly increased their writing rate (total words written) from pre-programme to post-programme and follow-up assessment points, there was no evidence of loss in accuracy of words written.

Figure 3 also presents data on the measure of adventurous words written (Level 4 words and beyond the top level of the Arvidson (1970) spelling lists). As was the case for total words written, data for adventurous words written in English show major gains from pre-programme to post-programme for Year 8 and Year 7 students (from 17 to 31 words for Year 8 students and from 16 to 29 words for Year 7 students). Again there was a major gain, from 12 to 40 adventurous words written, by Year 6 students between the second and third pre-programme assessment. These data indicate that changes corresponded with the time of the English transition programme for Year 7 students.

On the measure of percent accuracy of adventurous words written, Figure 3 shows clearly that gains occurred corresponding to the times at which the programme was introduced. For Year 8 students the gain was small, but it was maintained to the second follow-up assessment. For Year 7 and Year 6 students the gain in accuracy was much greater (from 69% to 79% and from 53% to 93% respectively).

The most reliable indication of change is provided by the data on absolute numbers of adventurous words written. Hence as with the rate and accuracy data on total words written, these data on rate and accuracy of adventurous words written demonstrate that marked gains in rate were not accompanied by decreases in accuracy.

Figure 4 presents data on the two qualitative measures of students’ writing, (audience impact and language quality) with each entry being points on a seven-point rating scale, from 1 (low) to 7 (high). Raters were fluent in both Māori and English. All information to do with the order in which the writing samples were gathered and the writers’ names or class levels were kept from the raters.

**Figure 4: Pre- and Post-Programme Changes in Raters’ Responses to Audience Impact and Language Quality for Students Writing in English (multiple baseline format)**

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>AUDIENCE IMPACT</th>
<th>LANGUAGE QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 8 Students</td>
<td>2 3 4 4</td>
<td>2 3 4 4</td>
</tr>
<tr>
<td>Year 7 Students</td>
<td>2 2 3 3</td>
<td>3 3</td>
</tr>
<tr>
<td>Year 6 Students</td>
<td>2 2 3 4</td>
<td>3 4</td>
</tr>
</tbody>
</table>

On the measure of audience impact, there was little change in the generally low ratings (2.0 to 3.0) at pre-programme assessment points for students’ writing in English. Only one group, Year 8 students, showed an increase in rates of one point between the second and third pre-programme assessments. However, for the English writing assessment point immediately after the programme, all three sets of students received audience ratings one point higher than they received immediately prior at pre-programme. Only Year 6 students increased their ratings (from 2.0 to 3.0)
between assessment two (pre-programme) and assessment three (pre-programme) and then again (from 3.0 to 4.0) between assessment three (pre-programme) and assessment four (post-programme).

On the measure of language quality, for students writing in English, the pattern of increases in ratings received was identical to that for audience impact. All three sets of students increased their ratings of language quality by one scale point from pre-programme to post-programme assessment. These ratings were maintained at follow up for Year 8 and Year 7 students. Again, however, Year 6 students received a gain of one rating point between pre-programme assessments (assessments two and three) and pre- and post-programme assessments (assessments three and four). These gains were maintained or improved further at follow up for both Year 8 and Year 7 students.

Overall, data in Figures 3 and 4 indicate major gains in rate and accuracy of writing in English for all three sets of students. These gains generally corresponded to the times at which each set of students had completed their time in the programme. Students made gains in writing rate (total number of words written), at no loss to their level of accuracy. Students also showed major increases in the number of adventurous (low-frequency) words used in their writing in English, and this occurred at no cost to accuracy. There were also marked improvements in students’ writing in English on the two qualitative measures of audience impact and language quality. In the main these gains generally corresponded to the times at which each set of students completed their time in the programme.

A notable exception to the overall pattern of quantitative and qualitative writing gains occurring in accordance with the multiple baseline design occurred for Year 6 students on four measures (total words written; adventurous words written; audience impact; language quality). Their data showed increases occurring between assessments two and three (that is, during the 10-week period prior to them entering the transition programme). This movement suggests that something else may have been affecting the Year 6 students’ performance in English prior to their entry to the programme. This point is considered further in the discussion.

**DISCUSSION**

Data from the outcome measures demonstrate that as a result of the programme, the students within each of the three groups (Year 8, Year 7 and Year 6 students) achieved substantial positive reading and writing gains in English. The comparative reading in Māori data presented elsewhere (Berryman & Glynn, 2003) demonstrate that for all three groups the transition to English and their gains in English did not compromise their continuing high progress in Māori.

Overall, with few exceptions, the reading and writing gains demonstrated by students at each of the assessment points that directly followed the target language programme were greater than at any other time. This is consistent with the expectation of greater gains by students at these times due to the implementation of the English transition programme. The gains are thus clearly associated with the multiple baseline formats with the greatest increase generally being shown for each of the three groups, at the point directly following the programme.

While these data indicate that this pattern of findings held for all three of the target groups reading in English, there were a few exceptions to this pattern. These occurred with data on some of the writing measures from Year 6 students and suggest that these students may have been receiving some of the writing programme at the same time as the Year 7 students, and before they ‘officially’ entered the programme. This is particularly noticeable in Figure 3 where the total words written more than doubled and the total adventurous words written more than trebled. In Figure 4, also, the raters’ responses to audience impact and language quality show a corresponding one-point gain that is associated with gains made by the other two groups at completion of the programme. Interestingly while the number of words written increased at this time, the accuracy did not improve until they had completed the programme. This suggests that while they were confident to try writing more words immediately prior to the programme, it was the programme that helped to improve their writing accuracy.
Early indirect participation in the programme by the Year 6 students may have resulted from their being taught in the same classroom as Year 7 students. Whānau members who had already been trained in the reading tutoring procedures and tutors may also have exchanged advice, support and information with whānau members of non-programme students. At least one mother had two children in the study group. Whānau relationship amongst Māori parents and other whānau members encourages the explicit sharing of information and help amongst members.

In the main, by the end of the programme students from all three groups had met the criterion for reading stories at their appropriate chronological age or higher. Further, these data demonstrate that all students could read the most difficult texts in the Part 4 School Journals. These data, as Cummins and Swain (1986) suggested, compare very favourably with the level of achievement of students of similar age and class levels working in English medium classes. What must also be remembered is that these students concurrently maintained similar high levels of reading proficiency in the Māori language (Berryman & Glynn, 2003). By the end of the study all students were reading stories at the Miro level. In Ngā Kete Kōrero framework, these stories are levelled at the fluent reading level.

Data on changes in students’ writing samples establish considerable increases in the amount written across pre-programme, programme and post-programme assessment points. The greatest positive gains for all three groups of students occurred at assessments immediately post-programme. Data in Figures 3 and 4 also show that these increases in rate did not occur at the expense of writing accuracy. Further, the general pattern for all three groups in the programme was to increase their proportion of both basic and adventurous words written correctly with the greatest increases on these measures occurring at assessment points immediately post-programme.

Overall, the qualitative holistic ratings for audience impact and overall language quality of the writing samples again show increases across pre-programme, programme and post-programme assessment points. The general pattern of changes in these holistic qualitative ratings of writing samples was similar to that for the quantitative (rate and accuracy) measures. However, the size of these increases is typically limited to one point on the seven-point scale, usually showing movement from 2.0 to 3.0, or from 3.0 to 4.0. Raters remained unaware of the sequence in which the writing samples were gathered and the names of the writers. Hence, the finding that these ratings detected positive shifts that corresponded with the programme interventions was an important and worthwhile one.

CONCLUSION

In all cultures, initial language learning is acquired in responsive social contexts (Glynn, 1987) which reflect the cultural values and practices of the families in the community. Although sometimes there is a mismatch between the values and practices of the community and the school, in this project the interconnectedness that developed between whānau and kura was much stronger than the more traditional relationships that exist between parent and teacher in other schools. Within this responsive social context, the teaching, the curriculum and the school instigated and provided language contexts that were embedded in the experiences, skills and values of the community. The lives of the students were directly connected with the lives of people in the community. Accountability to whānau members dominated. Kaumātua participation in all phases of the project ensured that learning took place in appropriate cultural contexts.

This whānau and kura took ownership and control of the entire research process, including selection of an appropriate researcher, and the particular research paradigms and methods of evaluation that would be employed. Many Western research methodologies were used (quantitative assessing, monitoring and measuring reading and writing gains). However the specific application of these measures was designed and implemented by the whānau themselves. Western concepts of reliability and validity were handled from within a Māori perspective.

Overall, data from this whānau and kura English transition project demonstrate the effectiveness and value of providing direct input into training whānau and community members of students requiring transition from Māori
immersion programmes to English or bilingual programmes. Provided with ongoing feedback, whānau and community
tutors learned and implemented a range of reading and writing programmes over 10 weeks of tutoring (and in many
cases longer than this) that strongly supported students’ transition to English. Students on the programme made
major gains in both reading and writing in English. These data also demonstrate that the three groups of students
gained benefits each time the programme was applied to them. They further demonstrate that the benefits that they
received on the programme were maintained or further increased when the programme was withdrawn at the end of
10 weeks. Further, these data demonstrate that gains in English did not compromise ongoing gains in Māori. This
whānau were able to respond very positively to their own questions about how to provide an English transition
programme to improve their children’s academic opportunities in a bilingual secondary school system.

Durie (2001) sets out three broad goals for Māori in education. These goals are to live as Māori, to participate
successfully in the global community and to enjoy a healthy lifestyle. These goals are certainly consistent with the
goals and aspirations of the whānau of interest in this project. This whānau demonstrated what can happen when a
community and school, with the same goals and aspirations, collaborate in a shared cultural context. The Māori
language and cultural practices, as maintained and modelled by their kaumātua and kuia, provided the basis on
which to build the link into the global community. These students were able to stand tall in their own language and
culture and from this strength they were able to move ahead to learn new skills with greater confidence, building in
strength towards a more successful secondary school education: a successful education that will provide the skills
and knowledge needed for responding to and gaining employment in the global community and that in turn will
lead to their future health and well being.

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The Precious Threads: Bilingual and Biliteracy Development over the Transition to School

Fa’asaulala Tagoilelagi-Leota, Stuart McNaughton, Shelley MacDonald and Sasha Farry

Fa’asaulala Tagoilelagi-Leota, Stuart McNaughton, Shelley MacDonald and Sasha Farry are at the Woolf Fisher Research Centre, The University of Auckland, New Zealand. The Woolf Fisher Research Centre receives support from the Woolf Fisher Trust, the University of Auckland and the Manukau Institute of Technology.
Abstract

This paper discusses research that tracked the bilingual and biliteracy development of a group of Pasifika children over the transition to school. All the children attended Pasifika early childhood education centres which provided either bilingual or full immersion programmes. The research plotted the development in a home language (L1) and in English (L2) over the six months prior to going to school and in the initial weeks at school in mainstream English classes. Before going to school the children were developing as incipient bilinguals. An incipient biliteracy paralleled their bilingual development. There were individual differences in profiles on entry to school. The pattern of relationships between language and literacy suggests a degree of separation in the development of literacy according to language with some transfer between literacies. The majority of children entered mainstream English medium classrooms. After one month at school there were indicators of faster progress in English and a slowing down of progress in L1.

INTRODUCTION

This paper describes a group of Pasifika children’s bilingual and biliteracy development over the transition to school. The primary aim was to plot development in a home language (L1) and in English (L2) over the six months prior to going to school and in the initial weeks at school in mainstream English classes. The developmental patterns are described in the context of children whose home language was primarily a heritage language and who were attending Pasifika early childhood education centres with high quality literacy programmes, which were near total immersion in the home language.

The research considers the paths the children’s L1 and L2 took over the last six months before school and when first transitioning to mainstream classrooms. A number of developmental scenarios are possible when Pasifika children from almost total immersion early childhood education centres make this transition. Some of these scenarios might involve positive synergies between their languages and the language of the classroom, others might be more negative, involving influences that can interfere with ongoing development in L1. In addition, relationships to the programme and to the role of the teacher are significant in these scenarios.1

BACKGROUND

Developmental patterns and relationships in bilingual and biliteracy development are not very well understood generally, and there is little information for Pasifika children. A recent review of research in this area underscores the paucity of information internationally (Tabors & Snow, 2001). However, what the review does show is the extraordinary variability within and between communities in developmental patterns. This is especially so for the children whose family language is not or has not been English, and who are part of ‘minority’ cultural groups. In the early years children can live in families in which one or more languages are spoken, and the language ‘inputs’ to

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1 An anecdote reported by a parent indicated that a child who was in a mainstream classroom had a strong home language and was still demanding to be read in that language at home, even after six months at school. But with limited English, the teacher had advised the parents that they needed to speak English to their child at home.
children can vary from immersion in one language through to combinations of language inputs, associated with different family members, which can change over time. The relationship between the home languages and the local community languages is another source of variability in amount and type of input, and this is made more complex with attendance at early childhood sites where curricula and language types add further changes in language socialisation. Going to school introduces yet further complexity as formal instruction in written language begins. The characteristics of the oral language used in the classrooms, and the instruction related to reading and writing, impact on development also.

Tabors and Snow (2001) introduce notions of children having different degrees of bilingual and biliteracy status associated with the variability in inputs. Children who have a strong first language input in the early years, complemented by early childhood settings which provide rich first language experiences (in bilingual to full immersion programmes), yet who live in communities in which the dominant language is English, arrive at school as ‘incipient’ or ‘emergent’ bilinguals. Other children who have had mixed inputs under conditions where the input does not complement and add to the first language experiences may be ‘at risk’ as bilinguals, and not strong in either language. This mirrors an analysis by Māori researchers who identified different groups of children on entry to school who ranged from being strong in te reo Māori and relatively strong in English, through to children who had limited control over either te reo Māori or English (Berryman et al. 2001).

In general, Tabors and Snow (2001) argue, as others have (e.g. Garcia, 2003), that the evidence is that children with a strong foundation in their home language and continuing support for that language through home activities such as book reading can develop skills that can transfer to English after going to school. But these authors also point out first language skills and bilingual status may be placed at risk with immediate introduction to formal literacy teaching at school (see also Snow, Burns, & Griffen, 1998). There are other complications. Size of vocabulary, which is heavily dependent on amount of total input and vocabulary on entry to school, is a very good predictor of progress in reading comprehension at school. But developing in two languages may not necessarily mean double the vocabulary, as the same conceptual categories may be encoded in each language. Also, transfer of literacy-related knowledge, such as phonological awareness, from one language to another can occur without formal instruction but is not automatic (Garcia, 2003).

Garcia’s (2003) review shows that measures of first language reading are much stronger predictors of second language reading than their second language oral proficiency in the early grades. However, for older bilingual students, second language oral proficiency has been found to be a stronger predictor of second language reading than their performance on reading language measures in their first language. This finding relates to relationships between the developmental threads of literacy; those related to comprehension and those related to decoding (Whitehurst & Lonigan, 2001). Research reviews have reported the phenomenon of children who develop fluent and accurate decoding skills in a second language but whose comprehension, or the construction of meaning, lags behind (Garcia, 2003; Tabors & Snow, 2001).

Pasifika children experience complex language/environment relationships. At home they may be well immersed in their cultures which are rich with oral literacy. Wolfgramm (1991) and Tagoilelagi (1995) highlighted the role of Tongan and Samoan cultures in the acquisition of children’s early literacy skills. Their socialisation involves a variety of discourse patterns which represent their cultural ecology as Pasifika children in New Zealand. For instance, Pasifika children are often intensively involved in church activities which deliver Christian living through the medium of home language. What happens at church or at extended family gatherings and early childhood centres can often become the topic of discussion at home, which provides a vehicle for learning aspects of language such as new words for the children. This discussion, like other event narratives, can be predicted to place cognitive demands on the children as they both comprehend and produce it, providing a site for developing language related to school language tasks (Beals, 2002). That is, from the many different discussions that Pasifika children are exposed to within their surroundings, the cognitive demands placed on them (from trying to make sense of what the discussions
are about and taking part in these discussions) helps them not only to ‘produce discussions’ but also to ‘comprehend’ the situation. The whole process acts as a site for developing language related to school language.

Similarly, Tagoilelagi (1995) identified the significance of the Samoan culture (fa’asamoa) in the socialisation of preschoolers’ literacy skills; particularly in story book and Bible reading. The study confirmed the impact of the fa’asamoa in the acquisition of Samoan children’s literacy skills. She identified the role of church activities such as Sunday School and Pastor School as a major form of early literacy intervention with children in Samoa, and specifically analysed forms of guidance including the use of ‘performance routines’ (which involve patterns of recitation) for learning some types of texts. Families in New Zealand also used the performance routines and other routines as they read biblical texts and other texts. Thus, before school, Samoan children are exposed to their own literacies within their homes and church settings.

Pasifika early childhood education centres provide settings which have a role in sustaining Pasifika languages and cultures through delivery of Te Whaariki curriculum (national guidelines for good practice; Ministry of Education, 1996a). For example, programmes in the Samoan a’oga amata (Samoan early childhood centres) consist of an integration of Te Whaariki and Le Taiala Mo le Gagana Samoa i Niu Sila (Samoan in the New Zealand Curriculum; Ministry of Education, 1996b). Three of the five strands place emphasis on children’s literacy development – oral language (listening and speaking); written language (reading and writing); and visual language. All three are delivered through the cultural learning strand, and entirely through Samoan.

Recent professional development for teaching literacy and language in the Pasifika early childhood education centres has focused on high quality literacy and language programmes. The evidence from a study that included five Pasifika early childhood education centres is that these centres could deliver the programmes effectively in L1 and that the children develop further language and literacy skills in L1 (Phillips, McNaughton, & MacDonald, 2001).

Despite these rich contexts for children’s language and literacy development in their home language, recent surveys suggest wide variety within and across Pasifika language groups in L1 language use (Bell, Starks, & Davis, 2001). Moreover, on entry to school the groups of children who have been to Pasifika early childhood education centres meet a variety of classroom contexts in both L1 and English (L2). Added to this complexity is the variability of their conventional literacy knowledge and specific skills on entry to school and the variety of experiences in family literacy activities (Phillips et al., 2001). As noted earlier, further complexity occurs in the levels of teacher capability to respond to emerging bilingual children in English-medium instruction.

Tabors and Snow (2001) explored why the school literacy achievement of bilingual children typically is not as good as their monolingual English-speaking peers. They looked at consequences when children acquire English and the possibility of not maintaining the same rates of development in their first language. Their findings have many implications for Pasifika children who make the transition from Pasifika early childhood education centres into mainstream schooling. As Pasifika children enter school, will the concentration on learning English influence their acquisition of emergent literacy skills in English? With a new learning environment and new medium, will Pasifika children have the capability to develop two full language skills in a one-language medium? Does the expertise they have in their L1, in its oral and written forms, transfer to the new language context, and if so, how?

The first aim of the study discussed here was to describe the development of children’s home language (either Samoan or Tongan) and of English. The question was whether the patterns were describable as incipient/emergent bilingualism. A second aim was to extend this description to aspects of children’s literacy knowledge in both languages. The third aim was to check these patterns after a few weeks at school with the advent of English-medium instruction. The fourth aim was a preliminary analysis of relationships between the children’s languages and their literacies.
METHOD
The children described in this paper come from a larger study which has involved professional development in 35 Pasifika early childhood education centres with a focus on promoting literacy and language. The children are being assessed at four time periods – 4.6 years, 4.8 years, 5.1 years and 6.0 years. The current database is complete for all children up until 5.1 years.

Given the purposes of this paper, we report on two sets of children. Group one included Samoan and Tongan children for whom we have repeated assessments common to both languages and literacy assessments at each of three time periods (4.6 years, 4.8 years and 5.1 years). The numbers vary somewhat according to the measure (n=12 to n=18).

Group two consisted of the total number of Samoan and Tongan children tested at 5.1 years, a total of 49 children. The 5.1 year data point was chosen for a preliminary analysis of relationships between language and literacy because children had been at school for a few weeks and therefore possible impacts of L1 status and of literacy knowledge in L1 could be seen. A larger number of children were available from the main study to provide the database. All of these children were Samoan or Tongan.

Children and families
As preschoolers, the children in this study could be assumed to be developing as incipient bilinguals according to Tabors and Snow (2001), because they were in L1 early childhood settings, and they were in homes in which L1 was spoken. Tabors and Snow (2001) describe these children developing strongly in L1 and predict that given the matching L1 settings of home and early childhood setting there would be little further development of English over this time (p. 164).

Interviews with the teachers in the centres provided a range of demographic information, which included finding out the home languages of the children. All the Samoan and Tongan children were identified as speaking their heritage language at home.

Children
The group of children described over time at 4.6 years, 4.8 years and 5.1 years (group one) were Samoan and Tongan. On each of the measures, there were two Tongan children and the remaining children were Samoan. On each of the measures there were up to three more males than females. The 5.1 year sample (group two) included 23 Samoan and 26 Tongan children, 25 of whom were female and 24 were male. The children had been in the centres with varied enrolment times (most started at two years old with a few starting at six months old). They attended the centres at least three to four days per week.

Centres
Thirty-five Pasifika early childhood education care services from Mangere and Otara participated in a large-scale professional development programme. The professional development involved a specific focus on literacy and language activities in the language of the centre. Previous research-based analyses of the professional development showed impacts in specific areas of children’s literacy and language. But most of those earlier centres taught in English (Phillips et al., 2001).

The children described in this report came from 21 centres. The centres share a philosophical focus on delivering Te Whaariki using the tools which are their cultures and languages. Both Samoan and Tongan centres operated in a L1 immersion medium. The teachers had received eight training sessions (two hours per session) which were held fortnightly. Within that time, the professional development facilitator visited the centres to observe the teachers during reading, writing and storytelling sessions.
Measures

Language (English)

Measures of expressive and receptive language skills were employed. The assessments selected were those used by and, where possible, which reflected the language skills valued in New Zealand schools. The Tell Me language assessment procedure (RETELL) comes from the New Zealand School Entry Assessment (SEA) battery (Learning Media, 1998). It provides a measure of several aspects of children’s language. Children participate in listening to the tester read an unfamiliar story and then they retell it to an audience using the book. A total score out of 18 is reported based on subscores for comprehension, sentence complexity, vocabulary, organisation (story coherence), expression, and content (main points covered). The Tell Me assessment has been shown to have high reliability and validity (MacDonald & McNaughton, 1999).

The Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn, 1997) was used to assess receptive language. Although not normed for New Zealand it was chosen because of its widespread usage in similar studies (e.g. Dickinson & Tabors, 2001).

Literacy (English)

Measures of literacy knowledge and of progress in reading and writing were selected which are widely used and reflect literacy development associated with New Zealand schools.

Clay’s (1993) Observation Survey of Early Literacy Achievement provided the tests. The Concepts About Print (CAP) test gives measures of children’s knowledge of different aspects of written texts such as the front of the book and the back of the book, directionality and one-to-one correspondence. It has 24 graded items, the most difficult of which requires children to identify changes in word and letter order in sentences. The Letter Identification test (LID) measures letter knowledge in the form of letter names, letter sounds or a word with the appropriate first letter sound in 54 upper case and lower case letters. The Word Recognition test (WORD) of 15 words, is based on high frequency words in the first core series of books used in New Zealand classrooms. Lastly, the Writing Vocabulary test (WRVOC) was also included. The test measures writing vocabulary by recording the number of words able to be written in ten minutes. Each completed word scores one point if it is correctly spelled (Clay, 1993, sets the highest level at 81 and above). These assessments have high reliability and validity (Clay, 1993).

Language and literacy measures (heritage)

The Tell Me language assessment procedure and the literacy measures are available in English and Māori. For the purposes of the research, translations were made of these into Samoan and Tongan. The translations were made by researchers who were fluent speakers and familiar with the assessments in English. Multiple translations were made and consensus reached on wording where there were differences. The assessments were also field tested for appropriateness. It is important to note these have not been standardised in any way and it is not known how the scores might relate to typical developmental patterns and distributions.

RESULTS

The children were tested at three different ages (4.6, 4.8, and 5.1 years) with literacy and language measures in both their heritage/home languages (L1: Samoan or Tongan) and in English. At first the Samoan and Tongan centres were hesitant about the usage of English in their centres, due to their total immersion delivery. A rationale for testing was provided by explaining how it is important to know how the children might be developing bilingually; how research-based predictions around the strength of the L1 as a solid base in acquiring L2 might apply to the New Zealand context; and how there are important questions about the development of both languages over the transition to school and beyond. Researchers were fluent in both English and in the children’s heritage languages.
Group 1: Development from 4.6 to 5.1 Years

Language measures

Figures 1–3 and Tables 1 and 2 show the patterns of change in both the L1 measures and the English (L2) measures at the three testing times. The graphs have been drawn to represent the relative amounts of time between testing.

Figure 1: Mean Scores for Tell Me in English and Home Language at 4.6, 5.8 and 5.1 Years (total group)

Figure 1 shows trends over time on the Tell Me assessment. At the first data point, 4.6 years, the children were on average stronger in retelling in L1 than they were in English (L2). Over two months spent in the early childhood centres this continued to be the case, with marked rates of gain for English. At the point of a few weeks at school, the rate of gain had reduced for both L1 and L2, although the reduction was greatest for L1. The general lower rate may have been due to the ceiling effect for this measure (the total score of 18), but the differential rates may have been due to the effect of four weeks in English medium instruction (a conclusion suggested also by some of the patterns for the literacy measures below).

Receptive vocabulary in English was also assessed. Table 1 shows that there was a gradual increase in raw scores over the time at the Pasifika early childhood education centres but the average dropped after the transition to school.

Literacy measures

Common literacy measures at each assessment point are shown in Figures 2 and 3 and all of the measures (averages and standard deviations) are contained in Tables 1 and 2.
Concepts about print in both languages were relatively stable over the two months of testing at the centres (around four concepts for both languages), but there was a rapid increase from these to a few weeks into school, to around eight concepts in both languages (Figure 2). Letter identification scores rose during the time in the centres in both languages from around three letters to between six letters and eight letters, increasing even further by several weeks into school to between 17 and 22 letters (Figure 3). Writing vocabulary had a similar pattern to concepts about print. Scores were relatively stable over two months in the centres but increased to between two and four words on entry to school (Figure 4).

Profiles on entry to school

Language

The averages and standard deviations indicate considerable variability within this group of Samoan and Tongan children. That is, some children arrived at school (at 5.1 years) with very high scores in L1, up to a score of 13, and some children arrived at school with a score of 0. A similar degree of variability was apparent in the measure of English, the full range was from a score of 0 to 13 indicating in English limited competency through to an advanced profile with relatively high scores in one or more areas.

Another sort of variability is with individual children across the two measures of language. In the next section we report the correlation between the L1 and L2 retelling scores for the larger group of children at 5.1 years as $r = 0.13$; indicating little relationship. However, another way of showing this is in the 2x2 matrix (Table 3). Based on a median split in either language it can be seen that eight of the 15 children were in the high group on both language measures. On this analysis it could be said that about half the children ($n = 8$) arrived at school with relatively good control over both languages, but half also had mixed control with two being low in both.
Figure 3: Mean Scores for Letter Identification in English and Home Language at 4.6, 4.8 and 5.1 Years (total group)

Figure 4: Means Scores for Writing Vocabulary in English and Home Language at 4.6, 4.8 and 5.1 Years (total group)
Table 1: Total Group: Language and Literacy Measures in English at 4.6 Years, 4.8 Years and 5.1 Years

<table>
<thead>
<tr>
<th>Measure</th>
<th>4.6 Years</th>
<th>4.8 Years</th>
<th>5.1 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>LID</td>
<td>15</td>
<td>2.20</td>
<td>4.21</td>
</tr>
<tr>
<td>CAP</td>
<td>17</td>
<td>3.18</td>
<td>2.65</td>
</tr>
<tr>
<td>WRVOC</td>
<td>12</td>
<td>1.17</td>
<td>2.21</td>
</tr>
<tr>
<td>RETELL</td>
<td>15</td>
<td>5.20</td>
<td>5.25</td>
</tr>
<tr>
<td>PPVT</td>
<td>18</td>
<td>21.72</td>
<td>9.85</td>
</tr>
</tbody>
</table>

Numbers of cases may vary slightly across measures

Table 2: Total Group: Language and Literacy Measures: Mean Scores in Home Language at 4.6 Years, 4.8 Years And 5.1 Years

<table>
<thead>
<tr>
<th>Measure</th>
<th>4.6 Years</th>
<th>4.8 Years</th>
<th>5.1 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>LID</td>
<td>15</td>
<td>3.27</td>
<td>5.23</td>
</tr>
<tr>
<td>CAP</td>
<td>17</td>
<td>5.35</td>
<td>4.12</td>
</tr>
<tr>
<td>WRVOC</td>
<td>12</td>
<td>0.58</td>
<td>0.90</td>
</tr>
<tr>
<td>RETELL</td>
<td>15</td>
<td>8.13</td>
<td>4.90</td>
</tr>
</tbody>
</table>

Numbers of cases may vary slightly across measures

Table 3: Children Who Were in the High and Low Groups on Both Language Measures (Median Split) on Entry To School

<table>
<thead>
<tr>
<th></th>
<th>L1</th>
<th></th>
<th></th>
<th>L2</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Hi</td>
<td></td>
<td></td>
<td></td>
<td>Hi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lo</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td></td>
<td>2</td>
<td></td>
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</tr>
</tbody>
</table>

Literacy

The same analysis of variability can be made for the literacy measures. Children arrived at school (at 5.1 years) with a wide range of scores in their L1 literacy as well as their L2 literacy (see Table 1 and Table 2). The range for LID, for example, was between 0 and 34 in L1, and 0 and 52 in English.

Again, in the next section, we report the correlations between these literacy measures, both within and between L1 and L2. In general, the measures were significantly related both within and between languages. But the relationships were not perfect and individual profiles show considerable variability. Within a language, children can have well developed literacy knowledge in one area but less well developed knowledge in another; see, for example, Child ‘x’s’ profile compared with Child ‘y’s’ in Table 4.
Table 4: Variation in Children’s Literacy Knowledge on Entry to School (5.1 years)

<table>
<thead>
<tr>
<th>Child ‘x’</th>
<th>L1</th>
<th>2</th>
<th>CAP</th>
<th>8</th>
<th>WRVOC</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2</td>
<td>52</td>
<td>9</td>
<td>1</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child ‘y’</th>
<th>L1</th>
<th>4</th>
<th>CAP</th>
<th>2</th>
<th>WRVOC</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2</td>
<td>19</td>
<td>3</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Group 2: Relationships between Language and Literacy Measures at 5.1 Years

Relationships between each of the sets of language and literacy measures were explored through a matrix of correlations at 5.1 years with the group of Samoan and Tongan children from the larger study.

Table 5 presents the intercorrelations. Several patterns are suggested. The first is that there was no relationship between language assessments in each language. That is, home language status on the retell task did not predict English status (or vice versa), either on the retell task or on the receptive language task.

The second was that English language status tended to be differentially correlated with the English literacy measures, with only one significant association with the home language literacy measures (concepts about print $r = 0.28$, p < .05). Conversely, home language status tended to be significantly correlated with home language literacy scores (but not with writing vocabulary in the home language), but not with English literacy scores.

This pattern suggests a degree of separation in the development of literacy according to language. But when relationships between literacy scores were examined a pattern of more direct relationships is suggested for letter identification and for concepts about print. Each of these in the home language was correlated with each of these in the English literacy measures. Writing vocabulary appeared to have different relationships. In the home language, writing scores were correlated with writing vocabulary in English and letter identification in both languages. In addition, writing vocabulary in English was associated also with concepts about print in both languages.

DISCUSSION

This paper describes a group of Samoan and Tongan children’s bilingual and biliteracy development over the transition to school. The primary aim was to plot development in a home language either Samoan or Tongan (L1) and in English (L2) over the six months prior to going to school and in the initial weeks at school. The developmental patterns are described in the context of children attending Pasifika early childhood education centres with high quality literacy programmes, which were near total immersion in a home language. The children’s homes provided socialisation settings in the home language for language and literacy development.

As a group, the children’s development generally can be considered to reflect ongoing bilingual development (Tabors & Snow, 2001). The scores on the retell task were similar in overall levels and rates of progress. This is not surprising given the environments for the children’s language socialisation for their home language, and the availability and functions of English in the community. Their socialisation included a high quality immersion programme in the home language. What is perhaps surprising is the level of English and its development given that Tabors and Snow (2001) predicted little development in English under these circumstances.
Table 5: Inter-Correlations Between Language and Literacy Measures in Both Home Language and English Language

<table>
<thead>
<tr>
<th></th>
<th>RETELL</th>
<th>RETELL</th>
<th>CAP</th>
<th>CAP</th>
<th>WRVOC</th>
<th>WRVOC</th>
<th>LID</th>
<th>LID</th>
<th>PPVT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(E)</td>
<td>(HL)</td>
<td>(E)</td>
<td>(HL)</td>
<td>(E)</td>
<td>(HL)</td>
<td>(E)</td>
<td>(HL)</td>
<td>(E)</td>
</tr>
<tr>
<td>RETELL</td>
<td>Pearson Correlation</td>
<td>1.00</td>
<td>0.13</td>
<td>0.44**</td>
<td>0.28*</td>
<td>0.41**</td>
<td>0.18</td>
<td>0.39**</td>
<td>0.16</td>
</tr>
<tr>
<td>(E)</td>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>0.36</td>
<td>0.00</td>
<td>0.05</td>
<td>0.00</td>
<td>0.21</td>
<td>0.01</td>
<td>0.27</td>
</tr>
<tr>
<td>RETELL</td>
<td>Pearson Correlation</td>
<td>0.13</td>
<td>1.00</td>
<td>0.18</td>
<td>0.54**</td>
<td>0.14</td>
<td>0.23</td>
<td>0.03</td>
<td>0.45**</td>
</tr>
<tr>
<td>(HL)</td>
<td>Sig. (2-tailed)</td>
<td>0.36</td>
<td>.</td>
<td>0.23</td>
<td>0.00</td>
<td>0.34</td>
<td>0.11</td>
<td>0.83</td>
<td>0.00</td>
</tr>
<tr>
<td>CAP</td>
<td>Pearson Correlation</td>
<td>0.44**</td>
<td>0.18</td>
<td>1.00</td>
<td>0.54**</td>
<td>0.39**</td>
<td>0.21</td>
<td>0.44**</td>
<td>0.36*</td>
</tr>
<tr>
<td>(E)</td>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.23</td>
<td>.</td>
<td>0.00</td>
<td>0.01</td>
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Total Number of children tested for each measure: N=49.

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).
The importance of this description of incipient/emergent bilingualism is that it establishes that attendance at the Pasifika early childhood education centres was associated with development in both language and literacy in both the home languages (which was the language of the Pasifika early childhood education centres) and in English. The rate of gain in English was greater than gains reported in a previous study involving five Pasifika early childhood education centres for children being instructed in a home language (see Table 5 in Phillips et al., 2001). About half the children had relatively high control in both languages and hence could be said with some confidence to be emergent bilinguals (Tabors & Snow, 2001). It is important to note that attendance at the Pasifika early childhood education centres does not appear to substantially restrict the rates of acquiring English, reflecting the impact of the dominant community language.

However, a further important finding in this study is that there were large individual differences within the group, who as a whole might be described as developing incipient bilinguals. Children’s profiles varied on the language measures from being relatively high in both L1 and L2, to having a strength in one but not the other language, through to being relatively weak in both. This is likely to reflect both quantitative and qualitative differences in the direct language experience individual children encounter across the language socialisation setting (Hart & Risley, 1995).

An interesting finding was the similar patterns in development of literacy in the two languages. An incipient biliteracy paralleled the incipient bilingualism. Like other children in New Zealand these children arrived at school with a range of profiles on the literacy measures (McNaughton, 1999). Each profile is likely to reflect specific socialisation activities; for example those children with frequent interactive experiences with their books are likely to have developed a number of concepts about print before school (McNaughton, 1995). However, in the case of these children, there are profiles in two languages, and while there are close similarities, children did differ, in some instances markedly, within and across languages. Like a previous study, there was not a significant relationship between language assessments in L1 and L2 (Phillips et al., 2001). But unlike that study, there were significant correlations between some literacy measures in each language. An implication of the general finding of variability within/across literacy in both languages is that schools need to have ways of assessing, both formally and informally, children’s emergent literacy which provide resources for a high quality programme in L1 or L2 to build on (Tabors & Snow, 2001).

These results reflect the high quality programme operating in the Pasifika early childhood education centres (Phillips et al., 2001). The programme focused on quality of teaching in reading to children, guiding writing and telling and retelling stories.

This early childhood experience, together with the strong home background, meant that children were developing control over expressive and receptive uses of language, as measured on the retelling task. There was a suggestion in the developmental profiles that by a few weeks into school, children’s control over English was gaining relative to their control of the home language. It remains to be seen whether cross-language influence occurs as the children develop over the first year of instruction at school in English mainstream settings. Evidence from the schools into which these children have gone suggests the programme is very effective in providing high quality instruction in English and rapid development in English language and literacy takes place (Phillips et al., 2001; McNaughton, Phillips, & MacDonald, 2003). The rapid growth of literacy and comprehension knowledge in English from 5.1 years will be crucial to monitor especially if it starts to exceed their potential in their heritage languages. Tabors and Snow (2001) refer to this situation as being or becoming an ‘at risk bilingual’ given that the children maintain receptive abilities in L1 but develop productive use of the English language. They argue that once children are aware that other family members also understand and speak English, they may make the shift to operate in a single language which is English. Given that research has shown that this is a common pattern, whereby children lean towards operating in English only, there is a danger of being an ‘at risk bilingual’ also because of the parents’ lesser
proficiency in English. As noted earlier, the Tongan and Samoan children’s home language is their heritage language, thus parents may not be able to support their children with high-level conversations and preliteracy activities in English.

A major concern of this paper was to explore the relationships between language and literacy in the two languages over the transition to school. Directional causal relationships cannot be established in our preliminary correlational approach. However, it is worth noting that taken together the patterns are consistent with what Garcia (2003) has claimed; that measures of first language reading are related to (therefore may predict) second language reading, and perhaps more so than second language oral proficiency in the early grades. These relationships need to be examined closely in further research.

CONCLUSION

The longitudinal study shows the association of Pasifika early childhood education centres with both bilingual development and biliteracy development. The results indicate the significance of high quality language and literacy programmes in the centres, especially considering the evidence that transfer between literacy and knowledge and skills might occur. The wide individual differences raise challenges for schools in assessing language and literacy in two languages on entry to school. Monitoring continued development at school in high quality mainstream programmes is important to plot further developmental pathways in two languages.

REFERENCES


Themes and Dreams in Bilingual and Immersion Education in Aotearoa/New Zealand

Susan H. Foster-Cohen

Susan Foster-Cohen is director of the Champion Centre (an early intervention centre for children with multiple developmental delays in Christchurch) and an adjunct senior fellow in the Department of Linguistics at the University of Canterbury.
Themes and Dreams in Bilingual and Immersion Education in Aotearoa/New Zealand

Susan H. Foster-Cohen

Abstract

This paper draws together some of the themes that recur in the other papers presented at the Ministry of Education’s Language Acquisition Forum, October 2003. It reinforces their messages and places them in the more general context of what is known about becoming and remaining bilingual in any language. The paper concludes an articulation of some dreams or goals for bilingualism in Aotearoa/New Zealand.

INTRODUCTION

As Cath Rau details in the introduction to her paper in this volume, Māori–English bilingualism has not always been the goal of Māori language instruction in Aotearoa/New Zealand, and in many places it still is not. Despite this, strong Māori first and second language programmes, as well as strong Pasifika programmes, have triumphed, even without philosophical and material support from many quarters. Through the sheer determination of those who have refused to let the languages and cultures disappear and who have worked tirelessly to maintain and develop the languages in both oral and written form, children have achieved important levels of bilingual skill. This is true for children from preschool to high school and beyond, and those with widely differing initial skills in the languages. They now possess skills fit for participation in what we hope will continue to be a multilingual, multicultural country.

Despite all the frustrations, the double-talk from some of those in power and the set-backs along the way, Pasifika languages are surviving and te reo Māori is once again a true player in Aotearoa/New Zealand life, as the inauguration of the Māori television network amply demonstrates. Having worked with Navajo groups in the United States for many years, I can assure Aotearoa/New Zealanders that there are many across the globe who are watching the resurgence of Māori–English bilingualism with awe and wonder and not a little jealousy that so much has been achieved.

As the papers in this volume make clear, however, there is no room for complacency. Achieving and maintaining bilingual speakers and writers cannot be left to chance or the vagaries of uncontrolled power balances. The hegemony of English in the world today is such that no country intent on preserving and developing languages other than English for the generations to come can afford to take its eye off the ball for a moment. What has been achieved for te reo Māori needs to be built upon and developed even further; the other community languages need to be developed to the same or similar status within the country; and all Aotearoa/New Zealanders, including monolingual native English speakers, need to be encouraged to embrace the idea that being a user of more than one language is a source of richness for our nation.

1 This paper is based loosely on the presentation of the same name given at the meeting in Wellington. Those who were there will notice, however, that it has been quite significantly rewritten in light of the presentations and discussions we engaged in, and I thank all the participants for their input to my thinking.

2 I prefer the term ‘community language’ to either ‘heritage language’ or ‘indigenous language’. ‘Heritage language’ has a static feel to it, like something preserved in a museum, and ‘indigenous language’ does not include languages, such as Samoan and Niuean, which are long-time immigrant languages to Aotearoa/New Zealand, and like English can only really be distinguished from Māori on the basis of time-scale. ‘Community language’ applies to all those languages which are not English, but which are used routinely in communities in Aotearoa/New Zealand by those who view them as worthy carriers of culture and identity, and deserving of attention by those supportive of bilingual initiatives.
THEMES

In this section, I will draw together some of the themes that recur in the other papers in this volume, reinforcing their messages and placing them in the more general context of what is known about becoming and remaining bilingual in any language.

Literacy is the Key to Long-Term Successful Bilingualism

It is perhaps not surprising that papers presented in the context of a Ministry of Education conference should place significant emphasis on literacy issues, since literacy for all citizens is perhaps the single most important goal of any educational system. However, a number of the contributions to this volume have made either passing or focused reference to the complex issues that surround this apparently simple stance. Cath Rau, for example, reminds us that some advocates of te reo Māori have seen literacy in Māori as an intrusion of Pākehā technology into Māori culture. Feaua’i Amosa Burgess, in her paper on the role of Samoan and English book reading in early childhood classrooms; Fa’asaulala Tagoilelagi-Leota and colleagues in their paper on literacy skills in Pasifika early childhood centres and the transition to English medium school; and Mere Berryman and Ted Glynn in their paper on Māori speakers in Years 6 to 8 becoming proficient in English literacy all address the interrelationships between literacy in two languages and the extent to which skills are transferable from one language to another. Ian Christensen addresses the difficulties of mathematical literacy in a language which has moved rapidly into new arenas for which it has no traditional vocabulary and/or where borrowing from the other language (through word-for-word translation) is often the path of least resistance. Stephen May, in a wide ranging discussion of the characteristics of good bilingual programmes, includes discussion of the importance of literacy in the target language and of the active teaching needed to ensure transfer of literacy skills from one language to the other.

For all the difficulties, however, there remains the belief that the prize is worth the effort. As Berryman and Glynn say, ‘Literacy connects the people to the language and the culture of their ancestors. Use of any language is a proactive assertion of one’s place in the world. In the context of education, each language is a tool through which people learn to know and understand the world in their own unique way’. I think we must also add that because literacy allows one to parcel up the language in a book or on a computer and take it away anywhere in the world, it also provides a medium for what I like to call ‘autodidactic language refreshment’: the capacity to teach oneself and to keep a language primed in the mind. But then again, perhaps the invention of the cell-phone and the ubiquitous capacity to text has made this less of a clean distinction than it used to be.

While endorsing the view of literacy as vital to language maintenance, to educational advancement and to cultural identity, I want also to make sure that we do not lose sight of the oral component of language. Literacy is, after all, secondary to spoken language. It is achieved (usually) after the mastering of at least the basics of spoken language; and it is a skill which must be consciously learned. It does not emerge by exposure like spoken language. As some Māori nationalists have said, it is a technological addition to a language, and if it is to retain its integrity, it must retain its connections to the oral language. These connections are most visible with young children who are preliterate, and Burgess’s paper amply demonstrates the role of the fixed, known and repeated literate language of the favourite story (presented by a literate teacher). It encourages oral reflection on language, steers the switching or non-switching between languages, encourages oral problem solving and helps children code their own similar experiences in oral language.

Jannie van Hees addresses the importance of oral language in her paper as an issue of ‘crafting a fuller repertoire’. She reminds us that children need rich oral language experiences and high expectations on the part of teachers, parents and communities if they are to develop the levels of literacy expected of them and which they need for full participation in the life of the nation. Too often children are expected to do in writing and reading what they cannot do in speaking. While writing and reading call for critical analysis and sophisticated thinking skills, oral language
is often equated with ordinary everyday uses of language, rather than academic oral language. Paying insufficient attention to more advanced oral language, we doom children to school failure just as surely as if we had failed to teach them to read. As Clay suggests (1998, p. 208, quoted in van Hees, this volume), ‘For want of a boost in oral language development a child could be lost to education … We rarely see teachers planning activities for the sake of extending oral language itself’. Van Hees urges teachers (of both monolingual and bilingual children) to increase the oral language ‘budget’ and take the importance of oral language to the home–school partnership.

I heartily endorse this view of oral language. However, there are some significant difficulties to be overcome. Just as some may feel that literacy is an intrusive technology into an oral culture, so uses of language which are alien to a culture’s spoken traditions may also be seen as intrusive. As Heath’s (1983) study of language in two communities in the United States reminds us, the amount, type and uses of oral language vary from culture to culture. Oral cultures with a tradition of heated argumentation or verbal games may be better prepared for the expansion of oral language use that is required if oral language is to provide an effective basis and support for literacy. Cultures which use language largely for transactional purposes and/or intimate relationship building may need to be persuaded of the importance of more academically useful oral language. The difficulties are not insurmountable, but it is often easy for those of us who have made language our lives to remember that not everyone shares our passions.

Transitions are Dangerous Places

I have deliberately overstated this second theme, that transitions are dangerous places, but I hope not without reason. The importance, and dangers, of transitions on a child’s competence and well-being are only now really beginning to be taken seriously. May’s and Berryman and Glynn’s papers are perhaps the clearest articulation of the issues here. In Berryman and Glynn’s work, the community concern with how children schooled in te reo Māori up to the end of Year 8 fare when they go to English-medium high school led to the project described in their paper. The goal was to find a way to improve children’s literacy skills in English, so that they were better prepared to enter the next level of schooling. The challenge was to do it without negatively impacting on Māori literacy skills that had already been achieved. The success of the programme, as documented in their paper and elsewhere, is quite stunning, and speaks well of children’s ability to transfer literacy skills from one language to another, once they are secure in their first language literacy. Having taught academic writing to monolingual English speakers for many years, I know I would have been delighted if my students had responded with the alacrity and significance of progress made by the students in Berryman and Glynn’s study. Such a short period of time made such a big difference. But my students were working from scratch. They had no other literacy to bring to the task; nothing to transfer. One of the richnesses of bilingualism is that there is always a resource beyond the language being used in the moment; something a monolingual rarely understands.

An earlier transition, that from an early childhood centre to school, is the focus of Tagoilelagi-Leota, McNaughton, MacDonald and Farry’s study. They show that children attending Pasifika language medium early childhood centres with high quality literacy programmes are able to develop good skills in both languages. However, there is a lot of variation between children, and this needs to be a cause for concern. Those with weak skills in one or both languages are most certainly at risk of losing their bilingualism as they move into an English medium mainstream school environment. This raises the importance of effective assessment, so that the transition can build productively on what the children have acquired. Their study is still ongoing and the full impact of the transition to school on these children’s biliteracy and bilingualism will not be known for some time.

The concern that developing skills in a second language should not be detrimental to skills in the first was, and is, a legitimate one. However, this should not mean that the languages of a bilingual should not influence each other. They do, and they must. Most high functioning bilinguals actively exploit the overlaps, through code-switching, bilingual humour, conscious translation and so on. Only a monolingual could think this is a problem. And it would
be my hope that Aotearoa/New Zealand could become a nation in which no one thinks twice about switching between English and Māori.

However, transition points are still dangerous places. From a societal point of view, transitions (between home and school, between levels of schooling, between school and work) are moments where testing, often by strangers, is likely to happen. And, as most bilingual speakers of languages that are politically weak know, the testing is fraught for the bilingual. Even something as supposedly simple as vocabulary size cannot be compared between a bilingual and a monolingual, even though the bilingual is likely to come out ahead, because half of their vocabulary will not be recognised. Until there are carefully researched and justified bilingual expectations for bilingual speakers, transitions will continue to be dangerous places. May’s discussion of the need for much more knowledge and preparation on the part of teachers, both those working in bilingual settings and the generalist teacher, clearly indicates the work that needs to be done here in Aotearoa/New Zealand.

The danger of monolingual prejudices being visited on bilinguals in the form of inappropriate testing is only part of the story. Learners function best when they feel that special combination of emotional safety and intellectual stimulation. Threats to emotional safety through the disruption of healthy relationships, through transfer to unfamiliar spaces, or through passive or active challenges to identity, all impact on children’s language and learning. Whether it is going to school for the first time, transferring to a new teacher in the same school or transferring to a new school, it is potentially destabilising on all levels. The key for most, if not all, learners is the continuity of community. Where a child’s place is anchored in the home community, and where the connections between home and school are maintained and developed throughout the school years, transitions are much less difficult or dangerous, as van Hees details in her paper in this volume. This brings me to the next theme.

**Control Needs to Be at the Local Level**

I am fond of saying in the psycholinguistic presentations I give on bilingualism that bilingualism happens ‘one mind at a time’. I feel it important to reiterate this rather obvious fact because educational policy is often so removed from the individual, and yet no amount of regional or national policy making will impact on children one jot if it is not carried through to the individual level. This is another way of saying that you cannot actually teach, you can only facilitate learning. And when it comes to language learning (first, second, third…), each learner, while similar in many ways to other learners, does it his or her own way. Each learner is a particular mix of prior knowledge, preferences for learning style, particular personality traits and so on. Moreover, all learners carry their version of a vast range of social and cultural ways of thinking about learning, what they are learning, who they can and should learn from, and so on. For this reason, while upper levels of policy development can remove certain obstructions and even open up some doors, it remains with the ‘responsive social contexts’ (as Berryman and Glynn call it) of individuals and their local communities to really affect the development of bilingualism in our nation. Berryman and Glynn make a particular point in their paper of the importance of local cultural control in the success of their project. If it had been mandated from outside the community, if it had been carried out by strange ‘experts’, if it had not taken into account the individual differences between learners, it would almost certainly not have produced the clear effects it has. It is important that the local voices do not get silenced. Rau (this volume) makes a particularly articulate denunciation of literacy priorities for Māori medium education being identified simply as the same ones

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Footnote:

1 In fact this already happens much more than many Aotearoa/New Zealanders may be aware. When I first came to Aotearoa/New Zealand in 2000, I was as surprised and not a little confused by the extent of Māori words and expressions appearing in English newspaper articles without translations. I had to rush out and buy a dictionary and a grammar to understand what was being said! In the western states of the USA, where there are still a significant number of Navajo and Hopi speakers, even local newspapers do not use this kind of code-switching. The difference between the two situations is one of social, economic and political power. Languages do not tend to borrow words from languages with no cachet or clout, which speaks well of these qualities of Māori in relation to English.
as for English medium education. As she says, ‘This approach undermines Māori aspirations for self determination and threatens the development of Māori-derived epistemology and pedagogy’.

As van Hees’ work suggests, the key to voices being heard is mutual education. Where home and school share the same cultural backgrounds (as in the Berryman and Glynn study), the task of developing culturally appropriate epistemologies and pedagogies and the consequent effectiveness of teaching and learning, while not negligible, is at least more straightforward than where the cultural assumptions of school and home are dissimilar. This happens most obviously where children from a range of non-English backgrounds, most of them immigrant, come to an English-medium school. Van Hees’ paper in this volume makes several suggestions for how ‘teaching and learning connections’ can be made. Her emphasis is on the metacognitive, and being ‘very explicit about the “why and hows” of learning, and discussing similarities and differences that exist between own and other frameworks …The rich outside-school experiences and knowledge of the learners are being explicitly triggered and validated throughout learning contexts’. Key to this explicitness, of course, is the oral language skills argued for earlier. Voices that are clear, and can speak across cultural divides are much less likely to be silenced.

How Language Development Happens

Both social and psychological aspects of second/bilingual language development are addressed in the papers in this volume. The more social aspects include the importance of the power and social relationships between learners and teachers; the need to share knowledge bases about learning; the need for agreement between experts on the adoption of appropriate new vocabulary; and the need to be able to describe skills and subskills in becoming literate. The more psychological aspects concern motivation and identity, metacognitive understandings of educational epistemologies and pedagogies, and, as van Lier (2000, p. 253, cited in van Hees, this volume) puts it, the need for a rich ‘semiotic budget’ in a success-orientated, participatory, scaffolded learning environment.

KEY POINTS

I wish simply to add a few other key points to the themes outlined above. Since my own work is psycholinguistic, this will be the focus, but I offer them in the knowledge that the sociolinguistic issues are adequately addressed elsewhere in this volume. Some of the points I have already made, overtly or covertly, in the paragraphs above, but they bear repeating. I refer you to a review of the literature on child second language acquisition and bilingualism (Foster-Cohen, 2002) I wrote as part of the Pasifika Bilingualism and Immersion scoping document commissioned by the Ministry of Education and authored by Dr Anne Meade.

- Bilingual and second language development is not easy to achieve. It is a slow and effortful process, even if in younger children that effort is not so apparent. We know that children are exposed to something in the order of 19,000 hours of language input by the age of five (it varies, of course). What we do not know is the minimum number of hours that is required for each of the languages of a bilingual, or trilingual, or whatever. Cases of successful trilingualism suggest that minimum input is significantly less than what is typically available to a child. But whatever they need and get, their brains are certainly working hard to understand and store it.

- Structured language experiences, such as those presented in a classroom, will impact on different individuals differently, not only because they will differ in where they fall along the interlanguage continuum\(^4\) from novice to expert language user, but also because they will vary in personality, cultural approach, and so on (van Hees addresses this issue of input in her contribution to this volume).

\(^4\) Second language researchers are agreed that all stages of second language development represent systematic knowledge and use of the new language. Errors such as overgeneralisation of a structure or an item of vocabulary, while not reflecting native-speaker knowledge, are nonetheless indicative of a systematic approach to the language. As a result, researchers generally use the term ‘interlanguage’ (most closely associated with the work of Selinker, 1972) to describe all the systems which a learner adopts along the way, and the ‘interlanguage continuum’ to describe the sequence of interlanguages adopted and then discarded as the learner progresses.
Variations in age of learners also affects their responses to potential language learning opportunities. Learners at different ages respond to different teaching/learning strategies. Younger learners (preschoolers and children in the early years of primary school) are not yet able to profit from metacognitive approaches to learning a language, in which the language itself is the explicit and overt object of study. Young children learn through contextual understanding and use, supported by music, activities, and other non-verbal supports. Children at the other end of the continuum (adolescents and young adults) find it increasingly difficult to learn from such unstructured experiences, although most often they are not given the chance to see how well they could do in such situations because their metacognitive learning strategies are by then so well-honed they usually cannot help using them. In between are middle-years children whose ‘natural’ and child-like language learning capacities are declining, but whose metacognitive capacities are coming to the fore. These children have two learning mechanisms for language learning and can profit from both structured and unstructured opportunities.

The well-known decline in second language learning ability in older children and adults often leads to unnecessary despondency about late language learning. Late or interrupted second language learning is not doomed to failure. There may be some back-tracking and some relearning called for when the language is taken up again after a period of no learning, but once literate access to a second language is a possibility, re-priming of a second language and new movement towards the expert end of the interlanguage continuum is possible at any age. This appears to go against the idea of a critical period for language learning. However, more recent understandings (e.g. Birdsong, 1999) are that there is not a single critical period, but a number of sensitive periods during which certain aspects of the language are more easily absorbed. Learning the finer points of verb tenses, or learning to use an article system faultlessly (different words for ‘the’ and ‘a’ depending on arbitrary grammatical gender as in French, for example) seems to be much easier at a younger age. On the other hand, vocabulary development appears not to be age bound; neither does the ability to develop literate rhetorical structures.

The end points of language development for bilinguals and monolinguals will never be the same and the sooner we have honest-to-goodness milestone expectations for bilingual development and can use these for all assessment purposes, the better. (See May’s paper in this volume for extended discussion of the issue of assessment of bilinguals.)

The L1 and the L2 are mutually impacting, in borrowing and code-switching, and in temporary or long-term transfer effects from one language to the other. The issue of the storage of two languages in the brain is in its infancy of research, and all we can probably say at this point is that it is likely to be neither simple nor identical across speakers.

When languages are in contact with each other over the long haul, as Māori and Pasifika languages are with English, it will change one or both of them. The most likely changes are to the languages that are not the language of widest communication. So, the influence of English on Māori, for example, is likely to be greater and more far-reaching than the reverse. However, proportional to the social and political power of the community language, the influence can and does go the other way. The consequences of this are numerous. For one thing, the extent of community language forms in English can be used as a gauge of community language political power: the more Māori in English, the greater its power must be. Such borrowing, however, blurs the cultural and linguistic boundaries, a fact that some may see as positive, while others may see as negative. Long-term contact leads to language change resulting in local norms that come naturally to speakers, who may not realise that they are raising issues of ‘language purity’ for other (often older) speakers. The trick is to balance the linguistic traditions against the vitality of current forms, so that the community languages can remain vital agents of communication for modern speakers, young and old.
I came away chastened from my attempt at the meeting in Wellington to articulate some goals for the future of bilingualism in Aotearoa/New Zealand which I naively thought would be uncontroversial. So it is with great trepidation that I even try to offer the current section of this paper. However, I do think there are some pointers from the conference which bear articulation or rearticulation. I shall, however, put them as personal dreams, so that they do not in any way pre-empt the dreams of others at the conference and in this volume.

- I would like to see a well-designed corpus of oral and written bilingual data collected in Aotearoa/New Zealand and representing the major bilingual groups in our country. I would like to see this corpus represent high, but not unreasonable, expectations for children. And I would like it to be an opportunity for researchers and educators to collaborate in reflecting the true linguistic richness of this country.

- As such, this corpus would need to include both first and second language learners of Aotearoa/New Zealand community languages of a variety of ages, including speakers who are not culturally integrated into the community language cultures.

- I would like to see such a corpus properly funded, with cutting-edge technology, and made available to all bona fide researchers with the linguistic good of this country at heart.

- I would like to see the corpus used to develop culturally appropriate bilingual expectations for children’s oracy and literacy levels.

- I would like to see these expectations built into language assessment instruments and an end to the uncritical translation and use of instruments from another language (usually English).

- I would like to see speakers of languages in control of the expectations and assessment of children, and both their linguistic and cultural capital respected and reflected in educational practices.

- I would like to see effective teacher training that focuses on the needs and rights of bilingual children; expectations for speed and course of development and of end points and culturally appropriate pedagogies.

- I would like to see as many non-Māori speakers of Māori as possible. If the Quebequois can do it in Canada, why can we not make Māori a key to advancement and employment in Aotearoa/New Zealand?

- I would like to see genuine content teaching and learning in Māori in all schools, and an end to the delusion that learning a few waiata and being able to count and recite the days of the week constitutes language learning.

- I would like to see a general raising of the understanding in Aotearoa/New Zealand of what it means to be bilingual, and an end to the assumption that children with disabilities cannot be bilingual.

- I would like to see bilingualism valued for its own sake: for its capacity to open individuals up to alternative ways of thinking, as an agent for peace and understanding in the world, and as an asset in the struggle against racism.

- I would like to see all bilingual programmes in Aotearoa/New Zealand meet the standards of effectiveness discussed by May in this volume.
CONCLUSION

I have tried in this paper to both draw together and respond to ideas presented in other papers in this volume and to make a few points of my own. When one compares the Aotearoa/New Zealand situation with others world-wide, it is clear we do have the basis for a truly remarkable experience with language. There is still a long road ahead, but the way is now strewn with indicators of success. No doubt there will always be those for whom the progress is too slow or feels like one step forward and two steps back, but I am looking forward optimistically to a bright future for our community languages.

Tuia te rangi e tū iho nei. Tuia te papa e takoto nei.
As the sea meets the sky, so we all depend on one another.

REFERENCES


