

Education Innovation

Rita Elaine Silver

Wendy D. Bokhorst-Heng *Editors*

# Quadrilingual Education in Singapore

Pedagogical Innovation in Language  
Education

 Springer

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# Aims and Scope – Springer Education Innovation Book Series

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Education holds the key to unlock human resources that a society needs to survive and flourish. This is particularly salient in a borderless knowledge economy. For the past decades, the sterling performance of economies such as Hong Kong, Finland, Japan, Singapore and Taiwan in international studies (e.g., TIMSS, PIRLS and PISA) has channeled much attention away from the traditional centers of education research in America and Western Europe. Researchers, policy makers and practitioners all over the world wish to understand how education innovations propel the emerging systems from good to great to excellent, and how different their trajectories were compared to the systems in America and Western Europe.

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The audience of the edited volumes and monographs published in this series includes researchers, policy makers, practitioners and students in the fields of education and teacher education, and public policies related to learning and human resources.

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Editors

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## Series Editors' Foreword

Language is the means and the medium through which people, race and nation share information, ideas and feelings and make meaning. And through such sharing, identity and commonality can be forged. Issues related to language education policy and language-in-education system are therefore highly complex and emotional for any society, especially those which are racially and ethnically diverse. Furthermore, language policy and language-in-education system are also affected by geopolitical and historical contexts.

This book *Quadrilingual Education in Singapore* is the 10th book in this *Education Innovation* series and is therefore an important addition to the series because language policy is a cornerstone of the Singapore education system. This is an ambitious book. While the majority of the literature of language education focus on bilingualism, this book examines quadrilingual education. Singapore's current bilingual policy or "quadrilingual education system" (as described by the editors) is in fact a relatively new policy innovation, even if we compare it to modern Singapore's relatively short history of less than 200 years. While the instructions of two, or more, languages<sup>1</sup> have started in Singapore schools since the 1960s, the existing language policy of adopting English language as the medium of instruction in schools and the teaching of one other mother tongue language to all Singaporean children was formally introduced in the late 1970s and was only fully universally implemented across all Singaporean schools in the late 1980s. The trajectory of Singapore's language policy over the last 50 years plays a significant role in shaping Singapore's prevailing language environment, particularly the diversity in terms of the beliefs, expectations, language competencies and aspirations of adult Singaporeans (e.g., parents or teachers or policymakers), which intimately affect language learning in and outside schools. And this context is how the four main areas (i.e., transitions, competencies, practices and reforms) around which this book is organised have to make reference to.

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<sup>1</sup> Singapore experienced a short period of trilingual education system in the early 1960s when it was part of Federal Malaysia. Malay language was adopted as Singapore's national language, and this continues till today.

While Singapore's sociopolitical and historical context may be different from many other systems around the world, we are certain that researchers, students, practitioners and policymakers of other countries – especially those who also share a bilingual dream of their children being proficient in the mother tongue and another language, say English – will find the multiple case studies in this volume to be relevant and useful. This volume's unique focus on Singapore English language and mother tongue language classrooms – what students and teachers brought with them, what they believed, how they behaved and learned and on how changes and innovations took place – will provide the readers useful information to piece together and infer how circumstances might pan out in the classrooms of a different space at a different time, with similar aspirations. The book's focus on classroom-based research, e.g., pedagogical practices and student profiles, provides empirical information about how language-in-education evolves, taking into account the quadrilingual backgrounds of the students, when students and teachers interact in the classroom. We therefore congratulate the editors and authors of this volume for astutely capturing rich and detailed pictures of the journey undertaken by Singapore's language-in-education system. And since the system is not static but constantly evolving, we encourage the authors to continue to study and research Singapore's quadrilingual education system, so that the children's need to be able to express their ideas and feelings, to work with people around them productively and to learn throughout their life can be more effectively and efficiently met.

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# Abbreviations

BA	Bilingual approach
CALLA	Cognitive academic language learning approach
CCE	Character and citizenship education
CLCPRC	Chinese Language Curriculum and Pedagogy Review Committee
CLIL	Content Language Integrated Learning Core modules
CLT	Communicative language teaching
CME	Civics and moral education
CUP	Common underlying proficiency
EL	English language
GCE	General Certificate in Education exam
IRE	Initiation-response-evaluation
IRF/E	Initiation-response-feedback/evaluation
LSP	Learning support programme
MLLPC	Malay Language and Literature Promotion Committee
MLCPRC	Malay Language Curriculum and Pedagogy Review Committee
MOE	Ministry of Education
MT	mother tongue
OECD	Organisation for Economic Cooperation and Development
PAP	People's Action Party
PCF	PAP Community Foundation
PERI	Primary Education Review and Implementation Committee
PIRLS	Progress in International Reading and Literacy Study
PISA	Programme for International Student Assessment
PSLE	Primary School Leaving Exam
REI	Reading Engagement Index
SAP	Special Assistance Plan schools
SBI	Strategies-based instruction
SES	Socio-economic status
SFL	Systemic functional linguistics

SGEM	Speak Good English Movement
SST	Standard spoken Tamil
STELLAR	Strategies for English Language Learning and Reading
SWRT	Singapore Word Reading Test
TLLM	Teach less learn more
TSLN	Thinking Schools, Learning Nation
UK	United Kingdom
USA	United States of America

**Part I**  
**Introduction**

# Chapter 1

## Overarching Themes, Bilingual Dreams and Multilingual Landscapes: Quadrilingual Education in Singapore

Rita Elaine Silver and Wendy D. Bokhorst-Heng

### Introduction

In the formative years of the Singapore nation-state, Lee Kuan Yew, Singapore's founding father and first Prime Minister, dreamed of a multicultural nation of citizens speaking their own ethnic-based mother tongue languages, yet united in the common language of English; he envisioned individual bilingualism but societal multilingualism through a quadrilingual education system. Quadrilingual education has emerged within the context of very specific ideologies about language that have been developed over the years by government leaders in various public forums. A generation of students has gone through the schools since he first articulated this dream, and the next generation is well under way. Singapore's quadrilingual education policy has gone through some changes and adjustments over the years, but the fundamental principles remain intact (Bokhorst-Heng and Silver [forthcoming](#)). The discussions in this book provide insights into how this policy translates into classroom language practices and pedagogy.

In this chapter, we provide background for understanding the empirical studies reported in this volume. We offer information on language in education in the Singapore context by first explaining why we refer to 'quadrilingual education' in Singapore. We then highlight four themes that overarch the educational system as a whole and within which language education is framed. Subsequently, we discuss dreams and idealisations of individual bilingualism, societal multilingualism and education. This leads to a description of the language-in-education system, the cornerstone of the nation's language policy, which serves as background to the

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studies presented in this volume. The chapter closes with a brief introduction to the six parts of the book and the chapters within each part.

## Quadrilingual Education in Singapore

Singapore is well known for its so-called bilingual education system in which all students study two languages: English plus one other. The predominant medium of instruction is English, but all students must also study a ‘mother tongue’ (MT), usually Malay, Mandarin Chinese or Tamil. Despite the binary requirement for individual students’ language education, Singapore’s educational system and goals are more accurately described as ‘quadrilingual’ because Singapore’s language and education policies consistently refer to the learning and use of the four official languages: English, Malay, Chinese and Tamil. The quadrilingual model presents all three MT languages as equal players in the national agenda. All four languages are offered in schools to meet the English plus MT requirement for education.<sup>1</sup> Although each language has its own syllabus, materials and teacher-training curriculum, language study is expected to move students towards the common goals of the national educational system. These educational goals are promulgated through policy initiatives with the support of the Ministry of Education, Singapore (MOE). Some of the ongoing initiatives, as well as some of the implications for language instruction, include:

- Integrated infrastructural and pedagogical development, for example:
  - Converting all primary schools to single session which allows the students and teachers to use the facilities the full day rather than the older model in which the physical structure was used for two ‘sessions’ (e.g., Primary 3–6 from 7:00 to 12:30 and Primary 1–2 from 1:00 to 6:30). (MOE 2012f)
  - The ICT Masterplan (MOE 2008) which encourages both physical and pedagogical changes to integrate use of information technologies in teaching and learning
- Reconsideration of how students move through educational transitions at different grade levels, such as:
  - Provision of more public pre-school education centres and while introducing an accreditation framework for kindergartens (MOE 2012e)
  - Development of integrated programmes which “will provide an integrated secondary and JC [junior college] education where secondary school pupils can proceed to JC without taking the GCE ‘O’ Level Examinations” (MOE 2012b, para 1)

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<sup>1</sup>This does not mean every school offers all four languages. There is some variation depending on the ethnic population the school serves.



- Revisions to national assessments for English language (MOE 2012c) at the end of primary school (the Primary School Leaving Examination) as well as mother tongue assessments in secondary school (MOE 2012a)
- Policies for educational competencies for 21st century citizens
  - Encapsulated in Singapore’s ‘C2015’ framework (MOE 2010)

These initiatives, and others, impact all curricular subjects including the four languages (see Tupas 2011, Table 3.1 for a sense of the type and quantity of initiatives continuously proposed for the educational system). More importantly, within the quadrilingual language-in-education policy, the four languages are linked to each other and to the broader system through overarching themes for Singapore’s national educational system.

## Overarching Themes

At the launch ceremony of the 2012 Speak Mandarin Campaign, Minister for Education Mr Heng Swee Keat provided the following rationale for the country’s quadrilingual policy:

There are many important reasons why we want to support Singaporeans in becoming effectively bilingual. Learning English allows us to access the perspectives and heritage of the English-speaking world and connects us with the world of science, technology and global commerce. In our multi-racial society, English is the common language that binds us as one people. Learning Mandarin and our other mother tongue Languages anchors us to our Asian culture and values, gives us a complementary perspective and increasingly, connects us to the economic powerhouses of Asia. Bilingualism has been and will continue to be a cornerstone of our education system. It will benefit Singaporeans for generations to come. (para. 2)

Embedded in his comments are a number of themes that recur in many national policy speeches,<sup>2</sup> especially those by MOE officials, regarding language in education. Amongst these are:

- Continuous improvement/upgrading (of individuals and the system as a whole)
- Practicality/instrumentality
- Heritage/community
- Competency/proficiency

Although Mr Heng does not explicitly refer to upgrading, the need for continued effort in the area of language learning is the motif for his speech. For example, when he identifies bilingualism as the historical “cornerstone” of the educational system and a benefit for “generations to come”, he implies continuous improvement from the past to the present and into the future. Practicality, or instrumentality, has been a long-standing justification for Singapore’s integration of English into the school

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<sup>2</sup>Public speeches by government officials are archived at <http://stars.nhb.gov.sg/stars/public/>.

system and for making it the medium of instruction. We see this rationale in Mr Heng's reference to the "heritage of the English-speaking world", access to the world of "science, technology and global commerce", and to the potential economic benefits of speaking English in a globalised economy. Instrumentality also provides justification for Singapore's continued commitment to the learning of the MT languages because of their connections to the "economic powerhouses of Asia". He notes the potential role of English to build community when he suggests English as the "common language" for interethnic communication in a "multi-racial society", again a long-standing argument for the promotion of English. While the theme of 'community' may appear with respect to English and to the MTs, only the MT languages with their assumed link to ethnic identity are used to evoke notions of 'heritage'. Mr Heng claims that learning the MT languages "anchors us to our Asian cultures and values", thus invoking heritage/community. Policy references to a form of bilingualism that can serve all these purposes assume a high level of competence in at least two languages, including proficiency for commercial, social and academic uses.

Statements such as Mr Heng's are common in Singapore's public policy discourse and central to Singapore's promotion of four languages (see, e.g., Bokhorst-Heng and Silver [forthcoming](#); Rubdy et al. 2008; Silver 2005; Stroud and Wee 2007). Each of these themes can also be viewed in relation to national dreams, or idealisations, of language, individual bilingualism, societal multilingualism and education, as discussed in the next section.

## Bilingual Dreams

Individual bilingualism within the context of societal multilingualism (with the four official languages) is envisioned as a resource for Singapore's continued economic prosperity and social cohesion. Ruiz (1984) posited three possible "orientations" to language and bilingualism: language as a *right*, language as a *problem* or language as a *resource*. The language as a *right* orientation emphasises the importance of equal access to multiple languages (e.g., the home language and the school language, if different). It suggests that discouraging the home language or limiting opportunities for bilingualism is a violation of an individual's rights (see also Skutnabb-Kangas 2002; 2012 on linguistic human rights). Singapore's model of bilingualism is more restrictive. Because language is so closely linked with ethnic identity, official support is provided only for the learning of one's ethnically indexed language (although there are some exceptions, as we will discuss later).

In Ruiz's model, language can also be seen as a *problem* if individuals lack the linguistic variety that is necessary for functioning in the broader society; thus, they have restricted economic, educational and social opportunities. In some cases, the potential limitations of not knowing the socially dominant language are given as an argument for discouraging bilingualism and restricting bilingual education, in favour of monolingualism in the socially dominant language (see Hornberger 1998,

for discussion and counterarguments). In Singapore, language is typically viewed as a problem when there is a perception that students are not mastering the official language to the level desired by the quadrilingual system. For example, recent changes to the mother tongue syllabuses are partially driven by the perceived difficulty of reaching mastery if students do not use these languages at home (see, e.g., Zhao and Shang this volume). Similarly, efforts to improve the level of English proficiency – and to encourage use of an exonormative variety referred to as ‘international English’ – are subsumed within the annual Speak Good English Movement (SGEM n.d.). However, when viewed as a *resource*, language allows individuals greater social and economic opportunities; bi- or multilingual individuals can, in turn, offer those capabilities to society. This is Singapore’s predominant view for the official languages – as a resource for the individual and the society.

Interestingly, this is not true for other language varieties which were historically linked to the same ethnic groups in Singapore. For example, Chinese languages such as Hokkien, Hakka and Cantonese are viewed as problems and are not supported by the government, and, in fact, language policies for education and media have actively tried to replace them with the official languages even for unofficial (e.g., familial) uses (see, e.g., Bokhorst-Heng and Silver forthcoming; Lim 2009; Pakir 1993; Rubdy 2001). This is because the idealised linguistic dream for Singapore envisions language as smoothly coalescing with goals for economic development and global trade, social goals of interethnic harmony as well as heritage values and culture.

Within the dream of continuing economic development, language is viewed as a commodity which has fostered Singapore’s past economic development and supports continued economic success. This was evident in Mr Heng’s speech, quoted above. English is central to this dream as it is considered to be crucial for access to international trade, economic development and globalisation. As summarised by S Iswaran, Sr Minister of State, Ministry of Trade and Industry, “Now more than ever, there is an important need to cultivate in our students fluency and proficiency in English, and a keen appreciation of the language. English is the ‘Lingua Franca’ of global commerce, science and technology” (2009, para 2). Wee refers to the economic valuing of language as “linguistic instrumentalism” (2003, p. 211) and notes that this instrumentalism has not only been used to support English education throughout Singapore’s modern development but is increasingly used to support MT education (specifically Chinese and Malay) as well. He notes further that while these efforts seem to value the MTs as well as English, this is a somewhat naive conception of the economic opportunities associated with each language (see also Pakir 2004). Whether or not the economic opportunities are equal for all four languages, this particular linguistic dream promotes individual bilingual competence in English and at least one other official language, within the broad quadrilingual landscape.

There are also social, culture and affective aspects to the linguistic dream. Envisioning English as a means of interethnic communication and cross-community bridging necessitates all citizens developing English competence for interethnic communication. Similarly, within each ethnic community, there is a need for a common

community language. The need for a common intraethnic language developed primarily in reference to the Chinese community, which historically spoke a myriad of Chinese language varieties. This was seen as divisive and an impediment to Singapore's development and modernisation (Bokhorst-Heng 1999). While such issues are not apparent in the same ways across the other ethnic communities in Singapore, the rationale has been applied *carte blanche* across all MT languages. The common intraethnic language proposed by governmental policy was to be one of the official MTs. In reference to this, then Prime Minister Lee Kuan Yew said,

One abiding reason why we have to persist in bilingualism is that English will not be emotionally acceptable as our mother tongue. To have no emotionally acceptable language as our mother tongue is to be emotionally crippled. We shall doubt ourselves. (1984, p. 4)

Lee Kuan Yew has consistently claimed that Singapore's culture must be founded on 'Asian values' and that these are closely tied to learning and use of the MTs (see, e.g., Alsagoff 2007; Silver 2005; Wee and Bokhorst-Heng 2005). These idealisations of individual bilingualism and societal multilingualism are both deflected and reflected in Singapore's linguistic environment, which we examine in the following discussion.

## Linguistic Environment

Although Singapore is multilingual historically and currently, the linguistic history shows considerable change in the languages used in daily life and for schooling. A full linguistic history is beyond the scope of this chapter (see, e.g., Leimgruber 2013; Silver 2005; Tupas 2011). However, it is important to note the language shift and loss that has taken place in the past and which continues today. Attitudes of Singaporeans towards their languages and in light of these shifts are also relevant to understanding the current linguistic environment.

Two decades ago, Pakir (1993) noted that the multiple Chinese and Malay varieties as well as local 'trade' varieties such as 'market Malay' (Bahasa Pasar) which had been common in the past were giving way to more pervasive use of the four official languages. The national Speak Mandarin Campaign, inaugurated in 1984 and ongoing, has consistently encouraged families to use Mandarin at home instead of the Chinese 'dialects' that were historically used in Singapore. National census data shows a continued shift towards the official languages (Singapore Department of Statistics 2000). However, an unintended consequence has been a shift away from MTs and towards English. Pakir (1997) noted that this was due to families shifting towards English use at home in the hopes of better preparing their children for primary school. An MOE school-based survey also shows continued shift to use of English at home for all three ethnic groups (Ng 2009).

While these figures show that English is increasingly the 'dominant' language at home, they do not fully take into account Singaporeans' multilingual home language use. Data from the Sociolinguistic Survey of Singapore show that a high percentage

of homes surveyed are multilingual, rather than monolingual (Vaish et al. 2009, p. 2). For example, amongst families reporting English as the dominant language, more are multilingual than monolingual. Despite the increasing prevalence of English, an attitudinal survey of students found that use of the MT made students feel closer to their ethnicity (72.9% of Chinese, 79.4% of Malay and 74.2% of Indian respondents) (Table 2, p. 3) and that they like studying their MT (70.65, 94.1% and 85.4%, respectively). In these respects, government positions on heritage connections to MTs seem to be accepted by young people.

Reporting on data from Primary 5 students collected as part of the same survey, Bokhorst-Heng and Caleon (2009) take code-switching and socio-economic status (SES) into account to more closely investigate student attitudes. They used a matched-guise procedure with a set of pre-recorded conversations in English, each of the MTs and code-switching versions (one for each MT with English code-switching). They found that the students tended to have negative attitudes towards recorded speakers in terms of solidarity and status, with somewhat more positive views of MT speakers than speakers of English. In addition, ethnically Chinese and Tamil students showed higher solidarity scores towards recordings in the MTs, while Malay students had relatively similar attitudes whether speakers used English, Malay or code-switching. These attitudinal findings seem surprising in light of the overall shift to English. Bokhorst-Heng and Caleon commented, “A possible explanation for the foregoing findings is that English is not the sole dominant language of any of the three main ethnic groups. Even with the prominent presence of English in Singapore, English alone in the context of the home is not very common” (p. 244). Despite home multilingualism and code-switching, there is no doubt that English continues to gain ground. Therefore, a concern is that Singapore’s bilingual dream will fade to a monolingual English norm. This concern has driven much of the MT language-in-education policy since 2008 because continued use of all four official languages with high levels of individual bilingual proficiency continues to be part of the idealisation of multilingualism in Singapore.

Gopinathan et al. (2004) point out that “bilingual education” (as they refer to it) in Singapore is essentially reductionist – it takes into account only the four official languages and races, without fully representing either the current multilingual situation (with more than four languages/ethnicities) or the interactions amongst the official languages. It treats English as skill-based and free of heritage or values, while the MTs are assumed to be culture rich. On the one hand, this ignores the fact that languages and language education are inherently value laden (see, e.g., Curdt-Christiansen and Silver 2012); on the other, it assumes that the linguistic variety of the syllabus will be the variety used inside and outside of school settings. Ongoing discussions (and disparagements) of the development of localised varieties suggest that these assumptions are not tenable (Alsagoff 2010; Doyle 2009; Rubdy 2007). Further, current language-in-education policies assume that quadrilingual education can continue to foster high bilingual proficiency despite the language shift evident in the broader society. Tupas (2011) highlights how SES comes into play as well, noting that despite governmental rhetoric on education as providing equal opportunity for socio-economic advancement, those of higher SES are more likely to be

English speaking with rich literacy experiences in English, while those of lower SES are less likely to be so (see also, Bokhorst-Heng and Caleon 2009; Gopinathan et al. 2004; Zhao and Liu 2007). The quadrilingual language education system, as described below, is set within this broader linguistic environment.

## Language Education

From the start of schooling, all students in Singapore study the English language as well as take core courses such as mathematics, sciences and humanities in English. English is the medium of instruction for all examinable subjects except MT. The MT is used as the medium of instruction only in Civics and Moral Education (taught only at the primary school level and non-examinable). This is because the MTs are considered to be affiliated with learning about heritage culture and values. All students must study at least one of the MTs. Given the overall shift to English in the broader Singaporean society, a few primary schools have opted to teach other non-core subjects, such as Art and Physical Education in the MT (usually Chinese) as a way to increase opportunities to learn the language; however, this is uncommon.

We have been using the term ‘mother tongue’ without really noting its unique usage in the Singapore context. In Singapore, one’s mother tongue is an ascribed language, assigned on the basis of one’s father’s ethnicity. Thus, is it not necessarily a language that one’s mother even knows; neither is it necessarily one’s first language or habitually used language. Increasing numbers of students from English-speaking homes first learn their mother tongue at school. There is another set of unique terminology related to the instruction of language in the schools. In the terminology of Singapore schools, English is to be learned at ‘first language’ level (meaning high proficiency), while the MTs are to be learned at ‘second language’ level. In addition to high proficiency in English, students are expected to learn and use an “internationally acceptable English” (MOE 2001). There is an expectation that education will foster and maintain an idealised international variety despite evidence that a localised variety of English with its own distinctive features (Alsagoff 2010; Low 2012) is well-established and commonly used for social purposes (Alsagoff 2012; Rubdy 2001). For MT, students from upper primary through secondary can study at ‘standard’ or ‘higher’ MT levels. Students are placed into higher MT only if their test scores in the MT are sufficiently high.

Despite the terminology of ‘first’ and ‘second’ language levels, individual bilingualism was traditionally conceived as native-like control of both languages with approximately equal ability and use across linguistic domains, also known as “balanced bilingualism” (Baker 2011). This view ignored the global reality of bilingualism as use of two languages in complementary linguistic domains (Fishman 1967; Grosjean 2010; Hoffman 1991). In addition, designating English as ‘first language’ and MTs as ‘second language’ does not always match with classroom pedagogy or home language use. Reviews of Chinese language teaching in the early 2000s acknowledged that changes were needed to take into account the fact that many

ethnically Chinese children use English at home and equally high levels of proficiency for all might be unrealistic (Shanmugaratnam 2004). Similar trends are found among Singaporean Indians, with an increasing shift to more English usage at home. For those who speak Tamil at home, there are further complexities with respect to issues of diglossia in Tamil, with a 'high' or formal variety used for education and in other formal language domains while a 'low' variety is used for familial conversations and in more casual domains. This means that even if students speak Tamil at home, they must learn a different variety, the 'high' variety, in the school context. Singaporean Tamil has also developed a localised spoken variety for informal domains by educated users, Singapore spoken Tamil, which further complicates instruction in this language (MOE 2005). Given the diversity of languages in Indian, it should not be surprising that not all Singaporean Indian families identify as Tamils. As of 1989, provision was made for some Indian Singaporeans to study non-Tamil Indian Languages (Bengali, Gujarati, Hindi, Punjabi and Urdu) in lieu of Tamil (MOE 2012d). Although Malay has the closest geographic support and Singaporean Malays seem to be the least likely to shift solely to English (Vaish et al. 2009), the Malay language in Singapore has also shown some adaptation, especially with changes in pronunciation (personal communication, Abdullah 2010). Recent reforms to MT curricula are intended to address these changing demographics. For example, the Chinese language syllabuses have been revised to try to accommodate ethnically Chinese children who might use limited amounts of Chinese outside of school or come from English-dominant homes (Liu and Zhao 2008; Zhao and Liu 2007); and, Singapore spoken Tamil has been included in the Tamil language syllabus from 2008 (personal communication, Seetha Lakshmi, Nov 2012; see also Saravanan et al. 2007; 2009).<sup>3</sup>

The system for MTs is even more complex in that families can, in special cases, request that a child study an MT which is not aligned with ethnicity. For example, a family with an English-speaking Caucasian mother and Malay-speaking ethnically Chinese father (raised in Malaysia) might ask that their child be given permission to study Malay instead of Chinese. In this case, because of family background, the child's designated MT follows family language rather than ethnicity. However, it is often the case that the MT of the school does not follow family language, particularly for families that do not use any of Singapore's official languages at home. Children who come from Chinese families which use other Chinese languages (e.g., Cantonese, Hakka, Hokkien, Teochew) study Mandarin at school. Selection of MT might also be influenced by family requests. Non-Tamil Indian families who do not wish to pursue one of the designated non-Tamil Indian languages can request that a child study Chinese or Malay. But these cases are the exception rather than the rule: a special request must be made and approval of the MOE given.

Over time, there have been adjustments to language education policies taking into account changing educational, social and economic factors, but the two-language requirement and goal of English-speaking bilingual proficiency for each

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<sup>3</sup> All subject syllabuses for the Singapore system are available at <http://www.moe.gov.sg/education/syllabuses>.



student have been maintained. In many ways, the system has been quite successful at increasing English proficiency and promoting literacy in the four official languages (Singapore Department of Statistics 2010). Continuing curriculum revisions are trying to balance teaching of linguistic skills (e.g., listening reading), different student profiles and changing needs for future employment (MOE 2010) although as Tupas points out, "...responses to these sociolinguistic phenomena have not dealt squarely with the fundamental question of whether or not Singaporean bilingualism is sociolinguistically, ideologically and politically sound in the first place" (2011, p. 58).

We have thus far provided an overview of the overarching themes, bilingual dreams and multilingual landscapes within which Singapore's quadrilingual education policy has been formed and operates. This discussion provides the context and background for the chapters included in this volume that focus on the various forms of policy implementation in the classroom – the pedagogy, the patterns of language use and classroom practices.

## Overview of this Volume

Despite continuing concerns about language in education in Singapore, the system has been overwhelmingly successful at fostering English proficiency as well as maintaining language education in three other languages. Therefore, many scholars, educators and policymakers internationally are interested in better understanding how the quadrilingual system is enacted. While books and articles on the policy aspects of Singapore's language education are readily available (see discussion and citations above), information about current classroom and pedagogical practices are less common.

The chapters in this volume focus on teaching and learning of the four official languages, showcasing how languages are taught and learned in Singapore. The volume is particularly important in light of continuing international efforts to integrate English into national educational systems where English is not the dominant language. For example, many Asian countries have proposed introducing English language education starting in primary school (Nunan 2003) to create their own versions of English-knowing bilingual education systems. The goal, as in Singapore, is to educate a nation's children as English-knowing bilinguals – students with growing proficiency in English plus the national language. A concern for many nations is to address the increasing demands for proficiency in English while at the same time, supporting proficiency in their mother tongue and official languages and to manage the tensions between different languages. Because of Singapore's long-standing efforts in this area, empirical studies of teaching and learning in Singapore are of interest.



## Introducing the Chapters

Chapters are organised around four main topics: transitions, competencies, practices and reforms. *Transitions* refers to pre-school to primary school transitions within the larger system, as well as the ongoing transitions between past and present, and between home and school (bidirectional) with respect to literacy development and practices. This complex interplay of multiple and bidirectional transitions is captured in Abu Bakar's chapter which explores the dynamic relationships involved in the transmission and development of family literacy practices in a middle-class Malay family. In his discussion, he describes how "school experiences are mediated in particular ways by the parents' personal histories, religion, occupation, and by the experience of older siblings" (p. 24). He notes how interactions between parents (and between their own past literacy experiences and literacy involvement with their children), between parents and the children and between the home and the school all contribute to the nature of reading and writing practices in the home. In contrast to the home, the focus of Aman's chapter is on the bilingual Malay-English kindergarten environment. She investigates the beliefs and practices of teachers at two different kindergartens and how they frame children's needs in light of their upcoming transition to primary school. What both authors bring to light is the impact that the values about literacy and education more generally held by both parents and teachers have on the nature of these transitions. The theme of transition is meaningfully nuanced by Robert Perry's evocation of the aboriginal "fire stick" in his closing commentary. Rather than sequential rites of passage that suggest "moving on" and "moving away" or separation of one's past, the fire stick allows for thinking about transitions more holistically, as "Continuity with and change from what has come before as children start school" (p. 58). Within this analogy, it is possible to think about how "transitions to school can be moments about opportunities, expectations, aspirations and entitlements for all involved" (p. 60).

*Competencies* brings together different aspects of building competences within the context of Singapore's quadrilingual education system, focusing on linguistic/literacy competence and professional (teacher) competency. Shegar and Ward focus on building the reading competence of Primary 1 students in a Singapore school. They stress the importance of early testing with respect to decoding, comprehension and retelling in order to provide educators with the data needed to make sound pedagogical choices. They argue that it is only when there is an appropriate match between the particular learning needs of students and the forms of pedagogy used by teachers that students' reading competence can be developed. An example of the positive effects that some pedagogical strategies can have on literacy development is described in Zhang, Aryadoust and Zhang's chapter where they examine the impact of strategies-based instruction (SBI) on primary school students' writing competencies in both Chinese and English. They argue that "SBI in biliteracy teaching and learning is a mediator between personal and contextual characteristics and

actual performance (p. 120).” By implementing SBI in both language classrooms, there was also greater synergy between the two, and students in their study were able to draw upon their learning experiences across language boundaries. In the second chapter in this part, Sun and Curdt-Christiansen examine the relationships between morphological awareness (derivational and compound), vocabulary and reading comprehension competencies in mid-primary English-Chinese bilingual children in Singapore. The results show the facilitative cross-linguistic impact on learning of derivational and compound morphology and possible effects for reading. The part closes with Andy Kirkpatrick’s comparative commentary of policies and practices in Hong Kong, bringing in a broader international perspective and suggesting the need to consider greater integration between language and content instruction.

*Practices* brings together a collection of chapters which examine the pedagogical practices in Singapore primary classrooms: student engagement and reading in a pull-out programme for weak readers; classroom reading instruction; similarities and differences across English language (EL) and MT instruction; and the presentation of Chinese culture in Chinese language lessons. Vaish’s analysis focuses on the impact that various interactional patterns and classroom activities have on student engagement in the context of a remedial reading programme called the Learning Support Program. She found that, while students were at least moderately engaged throughout the programme, student engagement was lowest in classes that were predominantly teacher-led lecture and highest when teachers utilised whole class and group activities. It was particularly high when the teacher engaged the class in more kinaesthetic learning and deviated from the scripted learning. Silver et al.’s analysis directs our attention to the type of scripted learning that is common across classroom pedagogy for Primary 1 and 2 students across all four official languages. With data drawn from 80 lessons across the four languages, the authors note distinction features of instruction in each language as well as commonalities that imply common policies and cultural beliefs about education and schooling. Yang’s chapter brings in pedagogical responses to government policy within the context of Chinese language classrooms in ten schools. Specifically, he provides a close examination of the treatment of ‘culture’ in Chinese language lessons, addressing the premise that MTs are intended to foster heritage culture and values as well as language proficiency. He finds that despite the policy emphasis on the teaching of culture through language education, the actual cultural content is only very briefly described in both the primary and secondary school syllabuses and infrequently addresses in lessons. Finally, Zhang and Li investigate the effects of a morphological intervention programme aimed to facilitate Primary 4 children’s acquisition of English derivational morphology and word learning. Their programme, which was implemented in two schools, was based on two key principles: first, the intervention programme should include the integration of knowledge and strategy with respect of English derivation; and second, pedagogically, the programme should integrate explicit instruction, teacher modelling, teacher-guided activities as well as collaborative and independent student activities. The programme was implemented as part of the existing STELLAR curriculum for English language in primary grades. As a result

of this programme, teachers developed pedagogical competencies in the explicit teaching of derivation, and the intervention accelerated the development of morphological competencies in students. This part is brought together by a commentary discussion provided by Andrew Hancock in which he provides a comparison between the emerging trends in curriculum development in Scotland and Singapore, noting their congruence in how schools and teachers mediate curriculum guidance (such as those expressed in Singapore's Teach Less, Learn More initiative) into classroom practice.

The fourth topic, *Reforms*, includes four studies examining language policy, curricular innovation and educational reform with respect to Tamil, Malay and Chinese language classrooms. Curriculum for each of the three 'mother tongue' languages has seen a variety of reform efforts over the past number of years. With the increasing dominance of English in Singapore society, and the concurrent diminishing role for mother tongue languages, policymakers are continually seeking ways to revitalise the teaching and learning of these languages. Lakshmi's chapter provides an analysis of the use and impact of spoken Tamil in the early Tamil classroom. A serious concern for the Tamil community in Singapore is its rapidly diminishing speech community. In response to this decline, the Tamil Language Curriculum and Pedagogy Review Committee (MOE 2005) recommended the use of spoken Tamil in school. Lakshmi's chapter provides an assessment of the recommendation's impact on classroom teaching, looking at the use of spoken Tamil in the Tamil classroom. Abdullah's chapter focuses on character building through the teaching of Malay language in Primary 1 and Primary 2 classrooms, which is at the heart of the government's rationale for 'mother tongue' instruction. The question this chapter seeks to answer is to what extent initiative pertaining to *Arif Budiman* are realised in the classroom. Zhao and Shang look specifically at the development and implementation of recent curricular reforms pertaining to the teaching of Chinese in Singapore's primary schools. Given the dominance of the Chinese population, the teaching and learning of Chinese is particularly vital to the continued effectiveness of the quadrilingual education policy and bilingualism's place within the broader national framework. Their analysis focuses on the modular curriculum, which was formally launched in primary schools in 2007, and examines whether it is meeting the reform's objectives. Goh and Lim similarly focus on the teaching of Chinese. Like Lakshmi, Goh and Lim note how a series of curricular reforms have been implemented in the language classroom in response to an evolving sociolinguistic profile of primary school students. They propose a pedagogical model, which they call the "bilingual approach to the teaching of Chinese" – a model that employs the learners' dominant language in the early stages of their language learning. David Cassells Johnson provides a commentary which puts these studies in context with other studies on language policy internationally. He notes, in particular, global issues around the spread of English, economic beliefs (such as that espoused in Singapore) that higher English proficiency leads to greater economic gains and the struggles of classroom teachers attempting to follow educational policies while meeting the perceived educational needs of their students.

The book concludes with a synthesis by the volume's editors. In this conclusion, we revisit the key questions posed at the beginning of this book:

- *How does language pedagogy respond to current policies and to social changes in language use?*
- *What does language education at the primary level in Singapore currently look like, and how similar or different is the pedagogy used in teaching the four languages?*
- *What are current pedagogical innovations in Singapore's language education landscape?*
- *What can other educators, policymakers and researchers learn from Singapore's challenges and successes at multilingual education?*

The chapter closes with a discussion of issues that merit further attention and comments on neglected areas of research. Overall, the chapters provide significant insights into language pedagogy and practice in Singapore. They offer glimpses into the classroom, allowing for empirical classroom-based analysis of language pedagogy in all four languages, operating in an ever-changing socio-political context that continues to drive pedagogical innovation.

## References

- Alsagoff, L. (2007). Singlish: Negotiating culture, capital and identity. In V. Vaish, S. Gopinathan, & L. Yongbing (Eds.), *Language, capital, culture* (pp. 25–46). Rotterdam: Sense Publishers.
- Alsagoff, L. (2010). Hybridity in ways of speaking: The glocalization of English in Singapore. In L. Lim, A. Pakir, & L. Wee (Eds.), *English in Singapore: Modernity and management* (pp. 109–130). Hong Kong: Hong Kong University Press.
- Alsagoff, L. (2012). The development of English in Singapore: Language policy and planning in nation building. In E. L. Low & H. Azirah (Eds.), *English in Southeast Asia: Features, policy and language in use* (pp. 137–154). Amsterdam: John Benjamins.
- Baker, C. (2011). *Foundations of bilingual education* (5th ed.). Bristol/Tonawanda: Multilingual Matters.
- Bokhorst-Heng, W. D. (1999). Singapore's Speak Mandarin campaign: Language ideological debates and the imagining of the nation. In J. Blommaert (Ed.), *Language ideological debates* (pp. 235–265). Berlin: Mouton.
- Bokhorst-Heng, W. D., & Caleon, I. S. (2009). The language attitudes of bilingual youth in multilingual Singapore. *Journal of Multilingual and Multicultural Development*, 30(3), 235–251.
- Bokhorst-Heng, W. D., & Silver, R. E. (forthcoming). Contested spaces in policy enactment: A Bourdieusian analysis of language policy in Singapore. In A. Koh & J. Tan (Eds.), *Critical studies in Singapore education: Unfolding history, culture and politics*. Singapore: Routledge.
- Curdt-Christiansen, X. L., & Silver, R. E. (2012). Educational reforms, cultural clashes and classroom practices. *Cambridge Journal of Education*, 42(2), 141–161.
- Doyle, P. (2009). Language development in Singapore classrooms: A corpus-based description of the 'school variety'. In R. E. Silver, L. Alsagoff, & C. C. M. Goh (Eds.), *Language learning in new English contexts: Studies of acquisition and development*. London: Continuum.
- Fishman, J. (1967). Bilingualism with and without diglossia; diglossia with and without bilingualism. *Journal of Social Issues* 23(2): 29–38. Reprinted in Li Wei (Ed.), *The Bilingualism Reader* (2nd ed., pp 47–53). London: Routledge.

- Gopinathan, S., Ho, W. K., & Saravanan, V. (2004). Ethnicity management and language education policy: Towards a modified model of language education in Singapore. In A. E. Lai (Ed.), *Beyond rituals and riots: Ethnic pluralism and social cohesion in Singapore* (pp. 228–257). Singapore: Eastern University Press.
- Grosjean, F. (2010). *Bilingual: Life and reality*. Cambridge, MA: Harvard University Press.
- Heng, S. K. (2012). Speech by Mr Heng Swee Keat, Minister for Education, at the Launch Ceremony of the Speak Mandarin Campaign 2012 on Friday, 27 July 2012, at 11am at the Mochtar Riady Auditorium, Singapore Management University. Singapore: MOE.
- Hoffman, C. (1991). *An introduction to bilingualism*. London: Longman Group.
- Hornberger, N. H. (1998). Language policy, language education, language rights: Indigenous, immigrant, and international perspectives. *Language in Society*, 27, 439–458.
- Iswaran, S. (2009). Speech by Mr S Iswaran, Senior Minister of State, Ministry of Trade and Industry and Ministry of Education at the Second Inspiring Teacher of English Awards Presentation Ceremony on Thursday, 22 Oct 2009, 7.15pm at the National Library Building. Retrieved from <http://www.moe.gov.sg/media/speeches/2009/10/22/itea-ceremony.php>
- Lee, K. Y. (1984). Speech by Prime Minister Lee Kuan Yew at the opening of the Speak Mandarin Campaign on September 21 1984 at the Singapore Conference Hall. Retrieved from [http://mandarin.org.sg/en/~media/smc/documents/goh%20pm%20lee%20kwan%20yew\\_smc%20launch%20speech\\_210984.pdf](http://mandarin.org.sg/en/~media/smc/documents/goh%20pm%20lee%20kwan%20yew_smc%20launch%20speech_210984.pdf)
- Leimgruber, J. R. E. (2013). The management of multilingualism in a city-state: Language policy in Singapore. In S. Peter, G. Ingrid, S. Monika, & D. Julia (Eds.), *Multilingualism and language contact in urban areas: Acquisition, identities, space, education* (pp. 227–256). Amsterdam: John Benjamins.
- Lim, L. (2009). Beyond fear and loathing in SG: The real mother tongues and language policies in multilingual Singapore. In L. Lim & E.-L. Low (Eds.), *Multilingual, globalizing Asia: Implications for policy and education*. AILA review (Vol. 22, pp. 52–71). Amsterdam: John Benjamins.
- Liu, Y. B., & Zhao, S. H. (2008). Chinese language instruction in Singapore's primary school classrooms. *Pedagogies: An International Journal*, 3(3), 168–186.
- Low, E. L. (2012). Singapore English. In E. L. Low & H. Azirah (Eds.), *English in Southeast Asia: Features, policy & language in use* (pp. 35–54). Amsterdam: John Benjamins.
- MOE. (2001). *English Language syllabus for primary and secondary schools*. Retrieved from <http://www.moe.gov.sg/education/syllabuses/english-language-and-literature/files/english-primary-secondary.pdf>
- MOE. (2005). *Malay and Tamil languages: Engaging students through lively classrooms and responsive curricula*. Singapore: MOE. Retrieved from <http://www.moe.gov.sg/media/press/2005/pr20051117.htm>
- MOE. (2008). *MOE launches third masterplan for ICT in education*. Retrieved from <http://www.moe.gov.sg/media/press/2008/08/moe-launches-third-masterplan.php>
- MOE. (2010). *English Language syllabus 2010: Primary & secondary (Express/Normal [Academic])*. Singapore: Curriculum planning and development division, Ministry of Education. Retrieved from <http://www.moe.gov.sg/education/syllabuses/english-language-and-literature/files/english-primary-secondary-express-normal-academic.pdf>
- MOE. (2012a). *Changes affecting Special/Express courses*. Retrieved from <http://www.moe.gov.sg/education/secondary/express/changes/>
- MOE. (2012b). *Integrated Programmes (IP)*. Retrieved from <http://www.moe.gov.sg/education/secondary/other/integrated-programme/>
- MOE. (2012c). *Learning of English to develop 21st century competencies*. Retrieved from <http://www.moe.gov.sg/media/press/2012/09/learning-of-english-to-develop.php>
- MOE. (2012d). *Mother tongue language policy*. Retrieved from <http://www.moe.gov.sg/education/admissions/returning-singaporeans/mother-tongue-policy/>
- MOE. (2012e). *Singapore Pre-school Accreditation Framework (SPARK)*. Retrieved from <http://www.moe.gov.sg/education/preschool/spark/>

- MOE. (2012f, August 5). *Transition of primary schools to single session*. Retrieved from <http://www.moe.gov.sg/initiatives/single-session/>
- Ng, E. H. (2009). Speech by Dr Ng Eng Hen, Minister for Education and Second Minister for Defence, at the MOE Work Plan Seminar 2009, on Thursday, 17 September 2009 at 9.30am at the Ngee Ann Polytechnic Convention Centre. Retrieved from <http://www.moe.gov.sg/media/speeches/2009/09/17/work-plan-seminar.php>
- Nunan, D. (2003). The impact of English as a global language on educational policies and practices in the Asia-Pacific region. *TESOL Quarterly*, 37(4), 589–613.
- Pakir, A. (1993). Two tongues tied: Bilingualism in Singapore. *Journal of Multilingual and Multicultural Development*, 10, 167–179.
- Pakir, A. (1997). Education and invisible language planning: The case of the English language in Singapore. In J. Tan, S. Gopinathan, & W. K. Ho (Eds.), *Education in Singapore: A book of readings* (pp. 57–74). Singapore: Prentice Hall.
- Pakir, A. (2004). English-knowing bilingualism in Singapore. In K. C. Ban, A. Pakir, & C. K. Tong (Eds.), *Imagining Singapore* (2nd ed., pp. 254–278). Singapore: Eastern Universities Press.
- Rubdy, R. (2001). Creative destruction: Singapore's Speak Good English movement. *World Englishes*, 20(3), 341–355. doi:10.1111/1467-971X.00219.
- Rubdy, R. (2007). Singlish in the school: An impediment or a resource? *Journal of Multilingual and Multicultural Development*, 28(4), 308–324. doi:10.2167/jmmd459.0.
- Rubdy, R., Macky, S. L., Alsogoff, L., & Bokhorst-Heng, W. D. (2008). Enacting English language ownership in the Outer Circle: A study of Singaporean Indians' orientations to English norms. *World Englishes*, 27(1), 40–67.
- Ruiz, R. (1984). Orientations in language planning. *NABE Journal*, 8(2), 15–34.
- SGEM. (n.d.). *Speak Good English movement. About us*. Retrieved from <http://www.goodenglish.org.sg/>
- Saravanan, V., Lakshmi, S., & Caleon, I. (2007). Attitudes towards Literary Tamil and Standard Spoken Tamil in Singapore. *International Journal of Bilingual Education and Bilingualism*, 10(1), 58–79.
- Saravanan, V., Lakshmi, S., & Caleon, I. (2009). The Debate Over Literary Tamil versus Standard Spoken Tamil: What do teachers say? *Journal of Language, Identity and Education*, 8(4), 221–235.
- Shanmugaratnam, T. (2004). Opening Speech by Tharman Shanmugaratnam, Minister for Education, at Parliamentary Debate on Report of the Chinese Language Curriculum and Pedagogy Review Committee on 24 November 2004. Singapore: MOE. Retrieved from <http://www.moe.gov.sg/media/speeches/2004/sp20041124.htm>
- Silver, R. E. (2005). The discourse of linguistic capital. *Language Policy*, 4, 47–66.
- Singapore Department of Statistics. (2000). *Census of the population. Education, language and religion*. Singapore: Department of Statistics. Retrieved from <http://www.singstat.gov.sg/>
- Singapore Department of Statistics. (2010). *Census of population 2010. Statistical release 1*. Retrieved from [http://www.singstat.gov.sg/publications/publications-and-papers/cop2010/census10\\_stat\\_release1](http://www.singstat.gov.sg/publications/publications-and-papers/cop2010/census10_stat_release1). *Demographic characteristics, education, language and religion*. Singapore: Department of Statistics, Ministry of Trade & Industry. Retrieved from <http://www.singstat.gov.sg/pubn/popn/C2010sr1/cop2010sr1.pdf>
- Skutnabb-Kangas, T. (2002). *Why should linguistic diversity be maintained and supported in Europe? Some arguments*. Strasbourg: Council of Europe, Language Policy Division. Retrieved from: <http://www.coe.int/t/dg4/linguistic/Source/Skutnabb-KangasEN.pdf>
- Skutnabb-Kangas, T. (2012). Linguistic human rights. In P. Tiersma & L. Solan (Eds.), *The Oxford handbook of language and law* (pp. 235–247). Oxford: Oxford University Press.
- Stroud, C., & Wee, L. (2007). Consuming identities: Language planning and policy in Singapore late modernity. *Language Policy*, 6, 253–279. doi:10.1007/s10993-007-9047-6.

- Tupas, T. R. F. (2011). English-knowing bilingualism in Singapore: Economic pragmatism, ethnic relations and class. In A. Feng (Ed.), *English language in education and societies across Greater China* (pp. 46–69). Bristol: Multilingual Matters.
- Vaish, V., Jamaludeen, A., & Roslan, M. (2009). *The sociolinguistic survey of Singapore 2006: Findings and policy implications. Research Brief*. Singapore: National Institute of Singapore. Available at: [http://repository.nie.edu.sg/jspui/bitstream/10497/4432/1/NIE\\_research\\_brief\\_09\\_001.pdf](http://repository.nie.edu.sg/jspui/bitstream/10497/4432/1/NIE_research_brief_09_001.pdf)
- Wee, L. (2003). Linguistic instrumentalism in Singapore. *Journal of Multilingual and Multicultural Development*, 24(3), 211–224.
- Wee, L., & Bokhorst-Heng, W. D. (2005). Language policy and nationalist ideology: Statal narratives in Singapore. *Multilingua*, 24(3), 159–183.
- Zhao, S. H., & Liu, Y. B. (2007). The home language shift and its implications for language planning in Singapore: From the perspective of prestige planning. *Asia-Pacific Education Researcher*, 16(2), 111–126.

## **Part II**

# **Transitions**



## Chapter 2

# Transmission and Development of Literacy Values and Practices: An Ethnographic Study of a Malay Family in Singapore

Mukhlis Abu Bakar

### Introduction

Sociocultural conceptions of literacy suggest that children learn culturally appropriate ways of using language and constructing meaning from texts in their early years at home. Children learn the meaning of print by being surrounded by it in their immediate environment, by their explorations in play and by understanding its role in their everyday lives (Taylor 1998). In these situations, literacy functions not as isolated events but as components of the social activities in their homes and communities; literacy is used for daily living, entertainment, religious, interpersonal and school-related purposes (Teale 1986). Children also learn about literacy through their interactions with more experienced members of the culture (parents, more knowledgeable siblings, peers, extended family members and friends) in a process of guided participation (Rogoff 1990). While traditional caregivers (including parents and other adult members of the family) are usually seen to be the ones to guide and give attention to the children as they embark on reading, writing and drawing, siblings too ‘teach’ each other (usually through play) through what is referred to in the literature as “reciprocal learning” (Gregory 2001). In some families, the more knowledgeable elder sibling is entrusted with the role of ‘teacher’ to the younger one. In others, siblings engage in mutual exploration and shared discovery. The older siblings, given their earlier exposure to school literacy, help bridge the gap between home and classroom domains.

Different social and cultural groups have been shown to participate in numerous and varied literacy events (Heath 1983; Taylor and Dorsey-Gaines 1988), but perspectives about the nature, purpose and uses of literacy differ among them. For instance, in a study by Baker et al. (1996), middle-class families viewed literacy as

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a source of entertainment while lower-income families regarded it as a skill to be cultivated. Studies of Mexican immigrant families further showed that highly educated parents were perceptive of children's educational needs and provided them with different kinds of home literacy experiences that related to different kinds of skills (Rodriquez-Brown and Mulhern 1993; Sénéchal et al. 1998). And different communities have different beliefs about relating to texts and being a reader which lie behind children's and adults' everyday activities as shown by Heath (1983) in her study of three contrasting communities. Differences can also be seen in literacy-related discourse patterns with some adults engaging children in a style of conversing and questioning that differs markedly from traditional classroom discourse (Au 1993; Heath 1983; Michaels 1981; Philips 1972).

Behind much of the research mentioned above is a suggestion that models of literacy which operate in schools are rather specialised in comparison with its range of uses in people's everyday lives and that in fact for some children the purposes and meanings which are attached to literacy in school may conflict with those they experience in their community (Dyson 1999; Taylor and Dorsey-Gaines 1988). This may result in differential access to mainstream literacy practices (Allington 1994; Lensmire 1993) particularly in situations where teachers, less informed about literacy experiences other than their own, assume that these students can make home-school connections on their own (McCarthy 1994).

Indeed much interest in family literacy has been geared towards studying the implications of children's home practices for their experiences in school. A few studies have documented the influence from the opposite direction, that is, the impact of school literacy practices on what happens in the home (Goldenberg et al. 1992; Taylor 1998). Such studies are equally important because just as the simple transmission model of instruction may not work in a classroom, similarly, school learning experiences may not stream in seamlessly into the home. As Taylor (1998) has illustrated, school experiences are mediated in particular ways by family members: the "experiences of the parents, the experiences of brothers and sisters, and the child's own experiences form a filter through which learning at school must pass" (p. 17).

While research on the literacy learning of young children has been extensive, these are mostly of children living in Western societies, namely, the USA, Canada, the UK and Australia (Comber 2004; Heath 1983; Jackson 1993; Li 2002; Taylor 1998). The situation in Singapore is unusual given the country's complex and diverse racial, linguistic and cultural make-up. Its language-in-education policy which promotes the teaching and learning of two languages in schools (English and a mother tongue) is in stark contrast to the monolingual environment of many Western schools within which many of the existing studies are situated. The cultural ethos of the East such as others above self, discipline, and care and respect are also in some ways different from the individualism and independent thought relished in the West. Even as Singapore sees the Western model as the road to success, these traditional values are very much entrenched in both the public and private domains of society.

The purpose of this chapter, therefore, is to engage in a detailed examination of some of the dynamic relationships involved in the transmission and development of literacy values and practices within the context of a Malay family in Singapore.

## The Study

My perspective on literacy and culture originates from my own background as a Malay minority in Singapore and is mediated through my relationship with my family members and my community. I take the view that the life of an individual is enmeshed with the ongoing exchange with other family members who share similar knowledge, beliefs, morals and customs. Family milieu is a significant social and cultural context in which literacy is socialised, represented and transmitted; the family members' beliefs and values shape their literacy lives (Leslie and Korman 1989).

My goal was to uncover the relationship between family contexts, schooling and individual literacy in a Malay family in Singapore. The family lived in one of the larger Housing Development Board (HDB) flats<sup>1</sup> in a relatively new and predominantly low middle-class neighbourhood in the western part of Singapore. Two generations lived in the same flat – the parents (Shamsuddin and his wife Normah), two daughters (Naila and Sufiah) aged 6 and 8, and a son (Izwan) aged 3. (Pseudonyms are used throughout the chapter to ensure the confidentiality of the participants.)

The research questions are:

- (a) In what ways do the parents' beliefs and past experiences influence current literacy practices and attitudes to reading within the family?
- (b) In what ways do the children's experiences of formal schooling influence current literacy practices and attitudes to reading within the family?

My understanding of the family's literacy practices and their meaning-making is influenced by the work of people who have emphasised the contextual nature of literacy and the way literacy is embedded within particular sociocultural contexts (Barton and Hamilton 2000; Rogoff 1990; Vygotsky 1978). The sociocultural context defines the goals of development and the circumstances in which the children's development takes place. Interpretation of the literacy events that occur in children's lives while they interact with adults or other children becomes meaningful when the goals of literacy in the context of the children's appropriation of this cultural tool are understood.

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<sup>1</sup>These are publicly governed and developed but often resident owned. About 85% of Singaporeans live in such flats. They are located in housing estates, which are self-contained satellite towns with schools, supermarkets, clinics, hawker centres, as well as sports and recreational facilities.

## Method

I used ethnography to gain an understanding of the meaning of the literacy practices of the Singaporean Malay family. Ethnography studies human interactions in social settings through the process and product of describing and interpreting cultural behaviour (Atkinson and Hammersley 1994). During a 2-year period, I visited the family's home twice every 2–3 months with each visit lasting 2–3 h, for a total of 20 visits. This was part of a larger study of eight families, each of which included a child in his/her last year in kindergarten at the start of the study. The aim was to document the lived literacy experience of these children as they moved from kindergarten to primary school. This chapter will take as its focus the literacy experience of the focal child in one family, Naila.

I drew upon several ethnographic methods of data collection such as interviewing, participant observation, field notes and artefact analysis to gather data. I used informal conversational interviewing throughout the study (Walcott 1994). This enabled me to obtain an inside perspective of the participants' beliefs and values and their own perceptions about their literacies and living. All the interviews were audio recorded and transcribed so that the transcripts could be used for analysis.

Other than the interviews, my role and that of my research assistant (RA) constantly shifted between the position of observer and participant. There were occasions when my RA would be talking with the mother as she cooked while I sat with the father keeping an eye on the children playing. At other times both of us stayed as observers while the mother helped the children with their homework. As the children and their siblings began to make more familial sense of me and my RA, we were sometimes pulled into their activities as playmates or as teachers listening to them read. I kept descriptive field notes to record the literacy activities of the family and the nuances in the interactions among the family members.

Data analysis began as soon as the first set of transcribed data was available. My RA and I reviewed the field notes and cross-checked transcripts and recording. The analysis ranged from reading over the previous interview and formulating new questions to developing categories for themes or issues raised about parents' beliefs about language and literacy learning, school and literacy practices (e.g., what it means to read, school readiness, responsibility for literacy learning, ideas about play, perceptions of school and attitudes towards bilingualism). Selected literacy events were subjected to a moment-by-moment analysis, where each utterance was examined within broader texts using contextual cues to assign an interpretation to each meaningful unit. The units could include a turn, clause, phrase or non-verbal cues (Bloome et al. 2005). The purpose was to describe cultural scenes from both an insider and outsider perspective by moving from the very concrete to the more interpretive stance in order to theorise about the nature of the families' culture and to make sense of their world.

In the next section, I present a close-up look at the family in focus, highlighting the different aspects of the family's literacy practices and their transmission, followed by discussion and conclusion.

## The Parents: Experiencing the Past, Working on the Future

I visited Naila and her family for the first time just before she turned six. The living area in their flat was spacious allowing her 32-year-old mother, Normah, to rearrange the furniture whenever she became tired of one arrangement. There would always be space that was free of any furniture where Naila and her siblings (sister Sufiah and brother Izwan) could play together either watching Harry Potter or some other movies, drawing, playing with their toys or play-acting. The children's play area also included the bedroom which Naila and Sufiah shared, the adjacent room that kept all their books and toys and the spacious lift landing just outside the entrance to their flat which was wide enough for them to ride their tricycles or play with the neighbours' children.

Naila's 36-year-old father, Shamsuddin, a polytechnic graduate in electronics engineering, had his own study corner complete with bookshelves, cabinets and a computer. He would study in this corner – usually when the children had gone to bed – for his correspondence degree programme. His wife had completed hers in applied psychology a few years earlier, so now it was his turn. They hoped that their continuing education would set an example for their children to follow. Both desired to see their children graduate with a degree (“a degree is the least they have to achieve”; “if we have a degree, they should have a degree or more”). Normah was a housewife at the time of the study but was previously a primary school teacher for 5 years. She stopped work when she started her degree programme. It was also during this time that she gave birth to her first daughter and the second 2 years later. Studying while raising two infants was hard – Normah suspended her study for a semester when Naila was born – but she eventually obtained the degree in 5 years.

The motivation for continuing to learn was partly religious. Indeed, religion figured much in the parents' deliberations – choice of school, deciding what television programmes the children could watch, what books to buy, what type of stories should be discouraged and what languages the children should learn. They considered themselves successful professionals but with little knowledge of Islam. In some ways, they were disapproving of their own childhood (if not their parents' raising of them) as they reflected on the dismal amount of religious education they received other than learning to recite the Qur'an. Both made it a point to attend religious classes as regularly as they could “to make up for lost time”. Shamsuddin in particular was fond of reading religious books. Whenever he learned something new (mostly pertaining to rules of behaviour), he would do a little “research” consulting his books to verify that what his *ustaz* (religious teacher) had taught him was indeed supported by verses in the Qur'an and the Hadith<sup>2</sup> and not something of the teacher's own creation.

Shamsuddin and Normah wanted their own children to grow up religiously better educated than they had been. This was in part the reason for enrolling the girls in a

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<sup>2</sup>The 'Hadith' is the recorded and verified words and actions of Prophet Muhammad.

mosque kindergarten where the uniform covered their *aurat*<sup>3</sup> and where the literacy education included learning to read and recite Qur'anic verses and prayers in Arabic and learning about their faith. However, when it came to enrolling their eldest daughter in Primary 1, they found themselves in a dilemma. The idea of enrolling the girls in an Islamic school several kilometres away from their home which offered both secular and religious subjects and a uniform that allowed them to cover their *aurat* was put to the test. Enquiries from parents of existing and past students provided them with a negative impression of the school, chief among which was the perception that the teachers in the school were not adequately trained to nurture young learners. Worried that this would have an adverse effect on their children's learning, Shamsuddin and Normah decided to abandon the idea in favour of a 'normal' school located virtually opposite their home. It was a choice between '*aurat* and *ilmu* (knowledge)' as Shamsuddin put it:

...so aurat or ilmu... ilmu... kita (we) sacrifice aurat sekejap (for the time being)... that's our decision... but it's very painful.

Shamsuddin once reminisced about his parents and adults not introducing him to books early when he was young and did not want that to happen to his children. He recalled:

When I was small, I was not an avid reader because my background is not like that... my family background is not like that... only when I started reading on religion then I started reading more because I discovered the first *wahyu tuhan turunkan* (commandment sent down by God) is *iqra'* (read), it's not about *tauhid* (faith) or *fiqh* (Islamic law) ...so moving from there on I started to discover reading so I started reading widely... religion.

Shamsuddin and Normah had made it a point to expose their children to books early, a variety of them, both borrowed and bought, from storybooks to information books, from the simple Ladybird series to the more complicated but rhythmically fun Dr Seuss. They also bought Malay books from across the causeway in Johor Bahru (Malaysia) but these tended to be religious, i.e., children stories on moral values and about the prophets and their companions. Shamsuddin bought books not only for his children but also for himself and his wife. The books would have been carefully considered and bought only after much thought and discussion with his wife. He explained:

...but we can say that we buy quality books. We don't just grab. We will have... discussed with each other – should we buy this, what's the value for our children, and all that *lah*.<sup>4</sup>

Normah had this to say about her husband:

...he doesn't think twice about buying. He will buy from the net, he will buy from the bookstore... *tak kisah lah* [it didn't matter]. And then we will borrow books from the library. So basically they have that kind of exposure, something he (Shamsuddin) didn't have.

<sup>3</sup>The parts of a woman's body other than the face and hands.

<sup>4</sup>*Lah* is one of the discourse particles in the informal or colloquial variety of Singapore English (Lim 2007). It may be used to convey the mood and attitude of the speaker (as used in this quote) or used with a request or command to indicate impatience (e.g., "Finish your homework *lah*") or to turn it into a plea (e.g., "Give me more time *lah*").

Indeed, other than buying books, both parents had made library visits part of the family routine. Once in 2 weeks after the girls returned from their respective kindergarten/school, Normah would walk with them to the nearby neighbourhood library. On some Saturdays, Shamsuddin would drive the whole family to their favourite library in the eastern part of Singapore. This was usually a detour from their almost weekly ritual travelling to the east to visit Normah's parents.

## **The Parents: Enculturating Children in Literacy Practices**

By virtue of Shamsuddin's greater exposure to Islamic teachings, he took on the responsibility of teaching his children to read the Qur'anic text, one of the family's daily routine.<sup>5</sup> Every weekday, the period after the dusk prayer was set aside for this purpose. The girls at this stage were not reading the actual Qur'an but a set of reading practice in the form of small thin books that contained phrases found in the Qur'an. These phrases were grouped in terms of their rhyming features. The books were graded ranging from the simpler two-syllable phrases to the more complicated clauses. Children usually progress to reading the Qur'an only after they have successfully mastered this reading practice. Beginning with Sufiah and then Naila, the girls took turns to take their place in their bedroom away from the distraction of the television in the living room. Both father and daughter sat on the bed cross-legged facing each other with the book resting on a pillow between them.

As the girls recited the texts, Shamsuddin listened. Both girls were able to recognise the Arabic consonants and the vowels. They could put together the sounds into syllables and articulate the phrases phonetically. Occasionally, Shamsuddin discussed differences between Malay and Arabic sounds with them sharpening their metalinguistic skills in the process (Robertson 2002). Shamsuddin would pamper them with praise (e.g., "Good!") particularly at the end of every successfully recited phrase. If they made mistakes in pronunciation and other phonological errors, he would correct them, and if need be, articulate the problem syllables himself. Shamsuddin's teaching thus involved phonic recognition and memory learned through recitation and a lot of encouragement. Sufiah was closer to finishing the preparatory books before moving on to reciting the actual Qur'anic texts. But Naila had made such rapid progress that it was only a matter of time before she would catch up on her sister.

Given Normah's previous training and experience as a teacher, she was the adult responsible for helping the girls with their homework and facilitating their general literacy pursuits. In the excerpt below, Normah was helping Naila do a worksheet on

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<sup>5</sup>One practice among Muslims is to learn to read the Qur'an. For non-Arabic speaking Muslims, this may amount to no more than reciting the texts without understanding the meaning. Any understanding of what one 'reads' has to come from a religious teacher or the translations (cf. Gregory and Williams 2000). A common belief among Muslims is that one still earns a reward from Allah even if one is only reciting the Qur'an.

food which Naila brought back from her kindergarten. It involved cutting out the pictures of different types of food and pasting them in the boxes corresponding to either 'healthy' or 'junk' food.

1. Normah: What must we put down here?
2. Naila: Healthy food.
3. Normah: And here?
4. Naila: Junk food.
5. Normah: Junk food.
- ... ..
6. Normah: ...What pictures must we put under healthy foods?
7. Naila: Don't know.
8. Normah: Which one? Look at the picture. Which one? Which food must we put in this box? What's that? (Pointing to a picture of apples.)
9. Naila: Carrots. Apples.
10. Normah: Apples.
11. Naila: Rice?
12. Normah: Rice and? Look at that.
13. Naila: Fish.
14. Normah: Anymore? Anymore healthy food?
15. Naila: Burger?
16. Normah: Ah? Burger? Burger in healthy food? You sure? Burger should be in...
17. Naila: Junks.
18. Normah: Junk. Junk food. OK, what else besides the burger?
- ... ..
19. Normah: Carrots give you what?
20. Naila: Give you?
21. Normah: Vitamins or carbohydrates?
22. Naila: Vitamins.
23. Normah: How about rice? Does it give you fats, carbohydrates or vitamins? Which one?
24. Naila: Carbohydrates.
25. Normah: Carbohydrates makes you strong, gives you energy. How about apples? Apples give you?
26. Naila: Vitamins.
27. Normah: Vitamins. OK, clever girl.

Normah employed a pseudo Initiation-Response-Evaluation (IRE) (Mehan 1979) sequence throughout this excerpt to scaffold Naila's learning about the nutritional value of food. Through this school-based technique, she facilitated Naila's learning by first checking on her understanding of the instruction in the worksheet (turns 1–5). Next, when Naila appeared to have difficulty naming a food to be placed in the 'healthy' column, Normah coaxed her into giving an answer by pointing to the



picture of the likely candidates (apples and carrots) (turn 8). At turn 12, when Naila correctly named another food (i.e., rice) on her own, Normah extended this successful turn by asking Naila for another food that came with rice (i.e., fish). On the other hand, at turn 16, when Naila offered a wrong answer (burger), she asked Naila to reconsider and then almost gave away the answer by suggesting indirectly the other category to which “burger” belonged (“Burger in healthy food? You sure?...”). Notice that Naila’s responses were not always in the form of statements. Uncertain of her own answers sometimes, Naila produced four of them (“rice”, “burger”, “sweets” and “lollipops”) with a rising intonation, effectively starting new IRE sequences that overlapped with Normah’s own. Normah treated this strategy as an instance of Naila trying out cautiously what she knew. And she knew best not to give these ‘guesses’ more attention than necessary; instead she affirmed Naila’s ‘question’ answers by repeating them. Normah’s last IRE sequence ended with an explicit comment of encouragement (“clever girl”, turn 27).

Beginning with turn 19, Normah helped Naila explicate the reasons behind the answers by eliciting from Naila the nutritional value of healthy food. But she proceeded with this elicitation in a way that presented a problem for Naila who appeared clueless about the meaning of an otherwise common phrase, “give you”, used by Normah (“Carrots give you what?”). Naila’s knowledge of the use of the phrase was apparently limited to one that meant ‘offer’ and not ‘produce’ which was the meaning intended by Normah. Naila thus sought clarification by repeating the phrase after her mother (“Give you?”, turn 20). But Normah unpacked the problem for her daughter not by explaining the contextual meaning of the phrase but by asking her to choose between two possible answers (“Vitamins or carbohydrates”, turn 21). Naila had to figure out on her own the other meaning of the phrase by evaluating the connection between the question and the answers it accepts. Given the flawless performance that followed, Naila appeared to have understood. There were thus multiple facets to Naila’s learning within this single activity: the categorisation of food, the basis for the categorisation and the metalanguage used in such discourses. Naila received extensive support and encouragement from her teacher mother not only in negotiating the demands of the curriculum but also in developing and displaying her cognitive ability, the kind of support which in the classroom would have been less accommodating and personal than what she experienced at home.

On other occasions when Naila was reading with her mother, the latter would introduce a related topic and then take the child away from the text to talk about everyday life. For instance, Naila was reading to her mother a story about a birthday party. At some point in the reading, Normah took the opportunity to start a conversation by asking Naila what her favourite birthday present was. This triggered a recall from memory and the sharing of experiences not only by Naila but also Sufiah who was listening to Naila reading. The printed text thus became an object for eliciting discussion and memory recall. From the children’s perspective, they were learning that looking at books also meant getting the opportunity to talk about their own life, learn new things and make meaning from them (Heath 1983).

## The Siblings: Trialling the Old, Apprenticing the Young

Academically, Naila progressed a little faster than her sister. Normah said that Naila could manipulate her literacy and numeracy skills with more ease than her sister at her age. She attributed this to the ways with which she and her husband dealt with Naila which were quite different from how they raised Sufiah. While they doted over Sufiah when she was younger, often trying to do too much with her and then regretting the distress they had caused her, in the case of Naila, they stood back and allowed her more room for mistakes and to express herself. Consequently, Naila grew up without the pressure to do things ‘right’ even though she still depended on her mother’s help and needed to be encouraged to do what she knew.

Sufiah was mature, perceptive and very considerate by her mother’s standard. Not only would she baby-sit her younger brother when Normah was busy attending to the household chores, she would also tell off Naila if she was being unreasonably demanding towards her mother (“Do you know that *ibu* (mum) is tired? You shouldn’t ...”). She tended to care for her younger siblings as a teacher would. This seemed to have rubbed off on Naila who in turn was protective over her younger brother, Izwan, often giving in to him when both wanted the same book or toy and playing school with him. Led by Sufiah, both girls had become responsible children; Normah did not have to struggle much in getting them to clean up their own mess.

Both girls shared similar interests, drawing much pleasure from playing games together, painting, play-acting, chatting, reading and watching popular movies (Harry Potter, Shrek, Barney, etc.) on DVDs. The girls spoke English with a ‘Barney’ accent, were equally competent in Malay and were able to switch from one language to another with ease. Their good facility with languages enabled them to follow stories in movies and memorise long stretches of talk. When I caught them acting out some scenes from the Harry Potter movie, their speech was clear both in grammar and intonation. Normah played a part in helping them remember the storyline and encouraging their extended dramatisation of the scenes.

While Sufiah acquired her literacy through the direct involvement of Normah, Naila acquired hers from her older sister as much as from her mother. Sufiah had taken on some of her mother’s role, though not her responsibility, in scaffolding Naila’s literacy. For instance, Normah used to read to both girls before they went to sleep. When Izwan was born, she found it difficult to continue the routine. So she entrusted Sufiah to read with her sister which was hardly a task. Naila, like her, was already a competent reader who was also already a critic of storybook characters (e.g., referring to Sleeping Beauty as someone who “*tak ada* [has no] brain” for getting her finger pricked). The account that follows offers further glimpses of how Sufiah provided Naila with a familiar and unthreatening relationship to practise her emerging skills as well as knowledge about what it meant to be a member of their particular culture.

Sufiah was instrumental in teaching Naila to read with expression, a skill she acquired in school. On one of the self-recorded tape, Sufiah read a Malay text to

Naila very expressively. She then questioned Naila's comprehension of the text and praised her answer as if she was a teacher, a practice she had observed in school and put to good use on Naila. A typical question and answer session went as follows:

- Sufiah: OK, now answer. If you don't know, I will read you again because this a short test. Number 1: '*Di manakah ketam itu tinggal?*'<sup>6</sup> [Where does the crab live?] *Dia punya crab tinggal kat mana?* [The crab lives where? (a more colloquial rendition)]
- Naila: *Lobang.* [Hole]
- Sufiah: *Pandai!* [Clever!]

Indeed, Sufiah appeared to imitate her teacher's pedagogic style when encouraging Naila to perform a literacy task. For instance, after having persuaded Naila to spell a list of words such as 'cat' and 'mat', and upon seeing her spell them correctly, Sufiah would remark: "Oh, so clever. You know, *Ibu* (calling her mother), she can spell all these words". Notice also that in the excerpt above, Sufiah not only appropriated her teacher's style; she also added her own signature by rephrasing the question in standard Malay to a nonacademic, colloquial variety that was more familiar to her younger sister. Sufiah thus illustrated what other researchers have highlighted about the role of schoolgoing older siblings in mediating the literacy of their younger siblings (Gregory and Williams 2003; Weisner 1989). Sufiah's school life became a part of the climate in which Naila grew. It became part of family life that shaped Naila's life in ways Sufiah had missed (cf. Taylor 1998). Normah spoke of Naila being present, observing, listening and participating in the school-related literacy activities of her older sister.

The ease with which the girls had access to books, papers and writing implements both at home and at their maternal grandparents' home enabled them to engage in many pen and paper activities. Naila was already capable of writing letters of the alphabet and was starting to write individual words at the start of the study. Sufiah on the other hand, having started school, could already write complete sentences often in the form of short messages. Whenever Sufiah asked her father for a sheet of paper, Naila would do likewise as she would want to write just like her sister. Normah explained:

...they like to write. They like to make cards *lah*, make flags *lah*, write me love letters, give *ayah* [their dad] *itulah* [that], *inilah* [this], *sampai tak ada tempat* [until there isn't any more space] you know. There's this empty box that we put everything in there...*banyak sangat* [too many] paper *sampai* [until] I have to threaten them 'if I see one more paper I'm going to throw it away'... because *kadang-kadang* [sometimes] (I) can't cope with the mess.

Through the writing activities with her sister, Naila had learned that writing has a cultural and social function; she had learned to be a "text user" (Freebody and Luke 1990). Before long, she too began to write within the context of a meaningful situation. On one weekend when the girls spent the day at their grandparents' home, Sufiah was noisily singing away with two of her cousins. Naila was irritated and

<sup>6</sup>Items in quotation marks are the texts read from the book.

shouted at them to stop. But she felt bad afterwards and went to a corner to pen a letter of apology to her sister, a simple “I am sorry *kakak* (elder sister). I said ‘stop’ to you”. Her writing did not always turn out perfect however. There were other occasions when she invented her own spelling such as writing the letters ‘happy’ in the wrong order. These emergent constructions (words and messages) were clearly influenced by the social context of the home in which literacy was practised (Sulzby and Teale 1991).

## **The Parents: Mediating School Influence on Children**

Even though Naila’s early literacy experiences had prepared her well for Primary 1 as compared to some other children (cf. Abu Bakar 2007), it was still an unsettling experience for her. New schedules, new rules and new work were a part of the school situation with which the Primary 1 student had to contend, quite different from what she had experienced at kindergarten. While it was a new experience for Naila, it was a familiar experience for Shamsuddin and Normah. It had happened to them in their own childhoods and more recently through the experiences of their eldest daughter, Sufiah.

Mediating Sufiah’s early experience in school 2 years earlier had prepared Shamsuddin and Normah better in easing Naila into her first year in school. They remembered how they used to read stories to Sufiah for her to enjoy and not pushed her towards academic activities. But the pressure came when Sufiah started Primary 1 – which was then that they had to modify the way they transmitted literacy styles and values to their children. They started going to the library more frequently and borrowing books that they thought were similar to the ones Sufiah were exposed to at school. They also began to complement a new genre of literacy materials with those that Sufiah brought home from school – worksheets that provide practice on basic aspects of literacy such as shapes of the letters of the alphabet and spelling – which grew more sophisticated as Sufiah moved to Primary 2 and beyond. Naila did not escape the intrusion of these new texts and had her first taste of assessment books even while she was still in kindergarten. Other school-related activities were also brought home such as word games which Shamsuddin and Normah made part of the family activities though not in a regular way. Fortunately, Sufiah was motivated to learn, and her parents were determined to help her while they continued to downplay the competition at school.

Sometimes difficult situations that Sufiah encountered with her parents benefited the younger sibling. On one occasion when Sufiah was in Primary 1, Normah scolded her over the handwriting homework she did. Naila was then in kindergarten. Seeing this scared her enough to not want to go to Primary 1 as evident in the following excerpt. That made Normah realise that she had to show more compassion when dealing with Naila.

Naila: I don't want to go to Primary 1 *lah*.

Normah: Why?

Naila: *Nanti Ibu marah. Naila tak pandai tulis tau. Naila tak tahu.* [You'll get angry with me. I don't know how to write. I don't know.]

In mediating Naila's early experiences of school, Shamsuddin and Normah worked to minimise the distress Naila sometimes found herself in. At the beginning of Naila's first term, Normah had been quite concerned because Naila disliked the teacher. She called her teacher "a dragon" because the latter looked very fierce and did not appear friendly with the children. Shamsuddin had to remind Normah not to let Naila know she was upset because it would confuse her.

Mediating Naila's school experience also involved helping her come to terms with the values the parents cherished which sometimes clashed with those that she encountered in school. Normah and Shamsuddin explained:

Normah: We are always communicating with them (the children)... I have to know what kinds of input they are getting; I have to know what kinds of things adults are telling them, and we have to tell them if it's right or not... Once she had a teacher asking her 'do you watch *Cinta Bollywood* [Bollywood Love (a television drama series)]?'... I said 'why?'... 'I (Naila) don't know'. She (Naila) actually came to me and she was not happy with me... 'I (Naila) was the only one who didn't put up my hand'. You know, it was strange *lah* for her as if she was the odd one there... so I said (to Naila) 'Good what'. [A colloquial way of saying 'Isn't that good?']

Shamsuddin: We had to tell her that...

Normah: At that age you don't need to watch that...

Shamsuddin: Tell her the values...

Normah: So I think it's useful to know what your child is up to... what kinds of things adults tell them coz teachers are human beings... they are not perfect... you know for rapport sake *kadang-kadang* [sometimes] they (teachers) *tanya* [asked (if the children had watched the drama)], so I have to know, and we have to say something back... we are always on the talking mode so that we know what's going on in their lives.

## Discussion and Conclusion

In this chapter, I have illustrated some of the dynamic relationships involved in the transmission and development of literacy values and practices in a Malay family in Singapore. There are multiple ways in which the parents' beliefs and past experiences influence current literacy practices and attitudes to reading with the family. Normah conserved practices from her own childhood, but her husband Shamsuddin made conscious changes. Interactions between parents, between parents and the children, and between the home and the school all contributed to the nature of

reading and writing practices in this home. It is also evident that in this family, literacy practices continually change as the children act and react in sharing literate experiences throughout their development.

When instructing Naila on literacy, Normah focussed on the meaning and purpose of written texts and of the particular modes of thinking that these normally involved but with ease and effect and ventured into the explicit teaching of concepts and introduction of new information. Her eldest daughter helped facilitate an appreciation for the cultural and social functions of writing while her husband drilled in the child the value of recitation and memorisation.

Naila's access to supplementary educational resources and capital was considerable. The texts and contexts provided in the home and which Naila drew upon were disparate consisting of school and home-related sources as well as those of popular culture. The family made trips to the library even as they purchased books. They had the economic capital to buy the resources they needed and knew where to get them. They also had the cultural capital to know what to get. This textual repertoire for reading which includes both the 'official' and 'unofficial' texts created what Luke calls "a pattern of mutually reinforcing intertextual references" (1992, p. 39), with characters who appeared on television, in movies, through the Internet and as toys.

Naila was growing up in a household where literacy was constituted as desirable. She spent a lot of extended time at home on both out-of-school and school literacy-related practices. She had extensive exposure to the content of books and ways of learning from books as well as considerable practice in interaction situations that taught her how to learn to read and to read to learn. The almost 'school-like' manner in which her teacher mother (and even her sister through her earlier experience in school) negotiated printed texts with her had enculturated her into ways of behaving that should allow her to use oral and written language in literacy events with ease and bring her knowledge to bear in school-acceptable ways. In other words, Naila had opportunities to make use of the rich cultural and linguistic resources she had in her "virtual school bag" (Thomson 2002).

Shamsuddin and Normah played a crucial role in mediating the impact of school on both Naila and Sufiah in culturally appropriate ways. Their mediation of their children's school experiences was influenced by their personal histories, religion and occupation and by their experience of mediating the impact of school on their older child. As Taylor noted, "the sum total of [a family's] literate experiences comes into play in the mediation of a child's learning to read and write in school" (1998, p. 17).

In conclusion, this chapter stresses the importance of knowing more about children's home literacies, both in order to get a broader picture of their competencies and practices and to remind ourselves that school is just one domain in peoples' lives and that school literacy practices need to be set within this wider context. The chapter has demonstrated the school-type literacy values and practices of a middle-class Malay family, but much more, it also describes a subtle integration of children's literacy learning with the social organisation of family relationships and family histories. Children do not just acquire language and literacy skills; they learn

different ways of relating to texts and of being a reader and writer through participation in social practices and the pursuit of social relations.

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## References

- Abu Bakar, M. (2007). 'One size can't fit all': A story of Malay children learning literacy. In V. Vaish, S. Gopinathan, & Y.-B. Liu (Eds.), *Language, capital, culture: Critical studies of language in education in Singapore* (pp. 175–205). Rotterdam: Sense Publishers.
- Allington, R. L. (1994). The schools we have. The schools we need. *The Reading Teacher*, 48(1), 14–29.
- Atkinson, P., & Hammersley, M. (1994). Ethnography and participant observation. In T. R. Sarbin & K. E. Scheibe (Eds.), *Handbook of qualitative research* (pp. 237–247). Thousand Oaks: Sage.
- Au, K. (1993). *Literacy instruction in multicultural settings*. Fort Worth: Harcourt Brace.
- Baker, L., Sonnenschein, S., Serpell, R., Scher, D., Fernandez-Fein, S., Munsterman, K., & Danesco, E. (1996). Early literacy at home: Children's experiences and parents' perspectives. *The Reading Teacher*, 50(1), 70–72.
- Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton, & R. Ivanic (Eds.), *Situated literacies* (pp. 7–15). London: Routledge.
- Bloome, D., Carter, S. P., Christian, B. M., Otto, S., & Shuart-Faris, N. (2005). *Discourse analysis and the study of classroom language and literacy events: A microethnographic perspective*. New York: Lawrence Erlbaum.
- Comber, B. (2004). Three little boys and their literacy trajectories. *Australian Journal of Language and Literacy*, 27(2), 114–127.
- Dyson, A. H. (1999). Coach Bombay's kids learn to write: Children's appropriation of media material for school literacy. *Research in the Teaching of English*, 33(4), 367–402.
- Freebody, P., & Luke, A. (1990). Literacies' programs: Debates and demands in cultural context'. *Prospect: The Journal of Adult Migrant Education Programs*, 5(3), 7–16.
- Goldenberg, C., Reese, L., & Gallimore, R. (1992). Effects of literacy materials from school on Latino children's home experiences and early reading achievement. *American Journal of Education*, 100(4), 497–536. doi:10.1086/444026.
- Gregory, E. (2001). Sisters and brothers as language and literacy teachers: Synergy between siblings playing and working together. *Journal of Early Childhood Literacy*, 1(3), 301–322. doi:10.1177/14687984010013004.
- Gregory, E., & Williams, A. (2000). *City literacies: Learning to read across generations and cultures*. New York: Routledge.
- Gregory, E., & Williams, A. (2003). Investigating family literacy histories and children's reading practices in London's East End. In S. Goodman, T. Lillis, J. Maybin, & N. Mercer (Eds.), *Language, literacy and education: A Reader* (pp. 103–122). Stoke-on-Trent: Open University.
- Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. Cambridge: Cambridge University Press.
- Jackson, M. (1993). *Literacy*. Great Britain: David Fulton Publishers Ltd.
- Lensmire, T. (1993). Following the child, socioanalysis, and threats to community: Teacher response to children's texts. *Curriculum Inquiry*, 23(3), 265–299. doi:10.2307/1179993.

- Leslie, G. R., & Korman, S. K. (Eds.). (1989). *The family in social context* (7th ed.). New York: Oxford University Press.
- Li, G. (2002). *East is East, West is West?: Home literacy, culture, and schooling*. New York: Peter Lang.
- Lim, L. (2007). Mergers and acquisitions: On the ages and origins of Singapore English particles. *World Englishes*, 26(4), 446–473. doi:10.1111/j.1467-971X.2007.00522.x.
- Luke, A. (1992). The social construction of literacy in the primary school. In L. Unsworth (Ed.), *Literacy learning and teaching: Language as social practice in the classroom* (pp. 1–82). Melbourne: Macmillan.
- McCarthy, S. (1994). Authors, talk, and text: The internalization of dialogue from social interaction during writing. *Reading Research Quarterly*, 29(3), 201–231.
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom*. Cambridge: Harvard University Press.
- Michaels, S. (1981). ‘Sharing time’: Children’s narrative styles and differential access to literacy. *Language in Society*, 10(3), 423–442. doi:10.2307/747871.
- Philips, S. (1972). Participant structures and communicative competence: Warm Springs children in community and classroom. In C. Cazden, V. John-Stener, & D. Hymes (Eds.), *Functions of language in the classroom* (pp. 370–394). New York: Teachers College Press.
- Robertson, L. H. (2002). Parallel literacy classes and hidden strengths: Learning to read in English, Urdu and classical Arabic. *Reading, Literacy and Language*, 36(3), 119–126.
- Rodriguez-Brown, F. V., & Mulhern, M. (1993). Fostering critical literacy through family literacy: A study of family in a Mexican-immigrant community. *Bilingual Research Journal*, 17(3&4), 1–16.
- Rogoff, B. (1990). *Apprenticeship in thinking*. New York: Oxford University Press.
- Sénéchal, M., LeFevre, J., Thomas, E., & Daley, K. (1998). Differential effects of home literacy experiences on the development of oral and written language. *Reading Research Quarterly*, 33(1), 96–116.
- Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (pp. 727–758). New York: Longman.
- Taylor, D. (1998). *Family literacy*. Exeter: Heinemann.
- Taylor, D., & Dorsey-Gaines, C. (1988). *Growing up literate: Learning from inner-city families*. Portsmouth: Heinemann.
- Teale, W. (1986). Home background and young children’s literacy development. In W. Teale & E. Sulzby (Eds.), *Emergent literacy: Writing and reading* (pp. 173–206). Norwood: Ablex.
- Thomson, P. (2002). *Schooling the Rustbelt Kids: Making the difference in changing times*. Sydney: Allen & Unwin.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge: MIT Press.
- Walcott, H. (1994). *Transforming qualitative data: Description, analysis, and interpretation*. Thousand Oaks: Sage.
- Weisner, T. S. (1989). Comparing sibling relationships across cultures. In P. G. Zukow (Ed.), *Sibling interactions across cultures: Theoretical and methodological issues* (pp. 11–25). New York: Springer.



# Chapter 3

## 'I Believe, Therefore I Practice': Teachers' Beliefs on Literacy Acquisition and Their Classroom Practices

Norhaida Aman

### Introduction

#### *The Relationship Between Beliefs and Practices*

The expanding literature on teachers' beliefs and perceptions relating to their classroom practices suggests that teachers' pedagogical beliefs are a major determinant of the choices they make in the classroom concerning curriculum, pedagogy, classroom management and relating to students (Orton 1996; Pajares 1992; Vartuli 1999). It thus follows that a deeper understanding of teachers' beliefs will be helpful in developing and implementing new programmes and effective in-service education (Richardson et al. 1991). Towards that end, the focus of this chapter is on the relationship between teacher beliefs and classroom practices in two Singapore kindergarten schools, with a particular focus on early literacy education.

#### *Theoretical Issues and Objectives*

The research shows strong support for a connection between teachers' beliefs and what they do in the classroom. Richardson et al. (1991) asserted that teachers are knowing beings and their knowledge influences their actions. They reported that teachers who regard reading as rules for decoding and interpreting text focus on developing decoding skills like mastering the phonic rules and knowing how to turn printed symbols into sounds. However, those who employ the whole language approach believe that learning to read is achieved by reading authentic texts from which the children construct

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meaning. Ernest (1989) similarly found beliefs to be a dominant determinant of pedagogical practices. He investigated the effect of the knowledge teachers have on their pedagogy and found that even though two mathematics teachers had similar knowledge and mastery of the subject matter, they taught in different ways. He concluded that while teachers' knowledge has significant impact on their teaching, it is their set of beliefs that is a better predictor of the classroom decisions they make. According to Fang (1996), the impact that beliefs have on teacher practice can take many forms. They can be embodied in teachers' expectations of students' learning performance or in teachers' theories about a particular subject area's learning and teaching. Other studies relate teacher beliefs with instructional practice and classroom strategy in specific curricula or programmes (Eisenhart et al. 1988; Frerichs 1993; McMahon 1996; Smith and Shepard 1988). Frerichs, for example, looked at the relationship between teachers' beliefs and practices in reading and language arts based on the work of Marie Clay (1991) and found that, with regard to materials to be read and who should have access to them (teacher and/or children), teachers' beliefs matched their practices. The common thread in these earlier studies is the notion that teachers' beliefs are an important component of their thought processes and general knowledge through which they perceive, process and make decisions in the classroom.

However, the relationship between beliefs and practice is not always transparent. According to Kagan (1992), while the connection between teacher belief and teacher behaviour and actions may seem self-evident, teacher beliefs are sometimes difficult to capture. This is especially true when teachers' beliefs can be both consistent and inconsistent with their classroom practices. Fang's (1996) study suggested that while many teachers' beliefs shape the nature of their classroom interactions and have an impact on literacy strategies, there are others who have reported that the relationship between beliefs and instructional practices can be very inconsistent. Fang suggested that the consistency versus inconsistency relationship between teachers' beliefs and their instructional practices could be due to contextual factors that drive the teachers' decision-making processes in the classroom. McMullen (1999) reported that teachers attributed the discrepancy or inconsistency between their beliefs and actual classroom practices to a variety of reasons, including parental expectations, environmental, work-related stress or institutional barriers.

In this chapter, the complexities of the relationship between teachers' beliefs and their classroom practices will be examined in two Singapore kindergartens. While preschool education is not compulsory in Singapore, the government has nonetheless laid out a framework for kindergarten education. This framework establishes an important part of the environmental context within which kindergarten teachers conduct their practice.

### ***Early Childhood Curriculum in Singapore***

While preschool education is not compulsory, according to a press release by Ministry of Education (MOE) on 7 March 2007, 95% of children have received some preschool education. Early childhood centres in Singapore are offered by public and private

institutions (MOE 2007). These include (1) PAP Community Foundation (PCF) kindergartens which are government-funded centres and also the major player in the kindergarten scene, (2) private kindergartens which are managed by commercial bodies, (3) religious-based kindergartens run by churches or mosques and (4) kindergartens administered by community organizations. The range of programmes offered by these centres varies a great deal, catering for children of different social strata and cultural groups. The cohort at PCF kindergartens is generally multi-ethnic, and the programme is affordable for most families. Quality preschools tend to be expensive, and admission is subject to availability. A number of centres cater to the needs of a particular ethnic group by not only offering academic instruction, but also religious literacy. Early childhood centres (including kindergartens) have the autonomy to stipulate their own goals and the liberty of designing their own unique curriculum.

While kindergarten education is not part of compulsory education in Singapore, the government has nonetheless established a framework to guide the curriculum and objectives of kindergarten programmes. The 'Framework for a Kindergarten Curriculum in Singapore' was introduced by the MOE in 2003 in an effort to instil "good and effective practice in early years setting" (MOE 2003, p. 12). The critical features of the framework are:

- A holistic approach to development and learning
- Integrated learning
- Children as active learners
- Adults as interested supporters in learning
- Interactive learning
- Play as a medium for learning

The framework, with its underpinning philosophy of child-centredness, further recommends the provision of an environment rich in print and of opportunities to engage in a variety of language and literacy experiences. These child-centred practices help develop young children's intellectual abilities through problem solving via concrete objects and experiences. Teachers become resources for children's self-initiated activities by providing open-ended opportunities for children to explore materials and interact with one another.

However, as Ang has noted, the framework actually offers little guidance for teachers concerning curriculum development and implementation:

Yet, ironically, while the new kindergarten framework advocates the cultivation of a child-centred, active-learning environment, there does not seem to be any acknowledgment of the social and cultural issues that are unique to this environment. There is no mention of the multiculturalism composition that pervades the Singapore context, and there is no discussion of the impact of this multiculturalism on the delivery of the curriculum... The implementation of the curriculum is therefore very much left to the experience and interpretation of preschool practitioners. (2006, p. 207)

Hence, even though a number of years have passed since the Ministry's framework was put in place, without clearly articulated guidelines on curriculum development, many educational philosophies abound in Singapore's early childhood landscape – ranging from Montessori to play-based to more traditional instruction. There are early childhood centres that continue to emphasize a skills-oriented

academic programme which includes a highly structured and teacher-directed instruction with sequenced tasks and repetitions, even though the government's framework clearly envisions a child-centred programme. A number of studies suggest that it is parental expectations and the broader learning culture that have influenced the programmes' philosophies and teacher beliefs. Tan-Niam (2000) and Sharpe (2002) argued that a highly structured system which places a lot of emphasis and value on academic skills is favoured by parents of Singapore preschoolers because it is seen as a conduit for academic excellence. Some preschool teachers also employ this highly structured, basic-skills-oriented approach in their classrooms because of its perceived benefits in helping children transition smoothly to primary school. Their beliefs on what are considered developmentally appropriate classroom practices tend to cohere with their beliefs on what is considered useful in equipping children with the necessary skills to cope with the demands of primary school education. Such perceptions are not necessarily ungrounded since children beginning Primary 1 are expected to demonstrate some ability to read and write and some basic mathematical knowledge.

In their study involving preschool and first-grade teachers in the United States, Stipek and Byler (1997) and Stipek et al. (1992) found 'parental pressure' to be one of the factors influencing teachers' beliefs and practices. However, in a survey of 79 Singapore preschool teachers, Lim and Torr (2007) found that the major determinants of teachers' beliefs include their professional training and experiences as a teacher and, to a lesser extent, parents' expectations. Teachers were asked to rank factors that influenced their beliefs about literacy. Only 3 out of the 79 preschool teachers ranked pressure from parents and school authorities as important factors in shaping their beliefs. The others nominated their teaching experience and knowledge as major forces in influencing beliefs.

This background on the broader context of early childhood education in Singapore sets the stage for the focus of this chapter: two kindergartens, with a focus on literacy education.

## ***Research Questions***

The data presented in this chapter have been drawn from a research study which attempted to provide an account of the range of instructional practices in the teaching and learning of English and Malay in early childhood programmes in Singapore. The research questions addressed in this chapter include:

1. What is the nature of Singapore kindergarten teachers' beliefs about young children's literacy development, especially those from centres that serve the Malay community?
2. What is the relationship between teachers' beliefs, their self-report data on perceived classroom practices and their observed classroom practices, specifically,

the extent of consistency or inconsistency between beliefs and instructional practices?

Because kindergartens are seen to play a key role in helping children transition to primary school – which also impacts both teacher beliefs and the degree to which they can practice their beliefs – the question of the (seamless) transition from kindergarten to primary school will also be discussed.

In the first part of this study, kindergarten teachers' beliefs with regard to literacy acquisition and development and early learning were elicited through administration of a questionnaire. Subsequently classroom observations showed discernible patterns that relate these teachers' beliefs to observed classroom practices. Student artefacts and classroom materials were also gathered and then matched to the teachers' beliefs and their own self-report practices in facilitating and supporting children's literacy acquisition and development in the classroom.

## Research Methodology

### *Participants*

Data collected from two kindergartens, be known as *Fairfield* and *Ivy*, will be reported in this chapter. The two kindergartens, or 'centres', cater to children from predominantly middle-class families and charge comparable fees. *Fairfield* is a centre affiliated with a community organization, while *Ivy* is a private kindergarten. Even though *Fairfield* is affiliated with a social/welfare organization, it has a long-standing relationship with the people in the community. Many families who have had children attend the programme at the centre give positive referrals and send younger siblings to the centre. *Fairfield* caters predominantly to middle-class families, while *Ivy* serves both low- and middle-income groups. The educational philosophies in the two centres differ significantly. The philosophy at *Fairfield* is that children should learn via structured play, while at *Ivy*, the philosophy reflects an emphasis on preparing children for primary school. Class sizes at both kindergartens ranged from 15 to 25 children, meeting MOE's requirement that kindergarten grade 1 (K1) classes should have no more than 20 children to one teacher, while kindergarten grade 2 (K2) classes should have a maximum of 25 children to one teacher.

As both centres cater exclusively to the Malay community, they offer instruction in both English and Malay. However, the pedagogical approaches to bilingual education at both centres differ significantly. *Fairfield* sets aside 1 day of the week as 'Malay day' where teaching and learning are conducted entirely in Malay. On the other days of the week, lessons are conducted in English only. The lessons and activities on 'Malay day' are closely matched to the overall theme and learning objectives for the given week. At *Ivy*, a four hour school day is structured into periods, with 2–3

periods a week set aside for Malay language instruction. The teaching and learning during the rest of the school week is conducted entirely in English.

A total of 17 teachers from both centres, all female, filled out the teachers' survey: 9 teachers from Fairfield and 8 teachers from Ivy. The profile of the teachers is given in Table 3.1. The mean age of teachers at Fairfield was 35 years, and just over half of them had some early childhood training, with the highest level being a Diploma in Preschool Education. They generally had more teaching experience than teachers at Ivy with mean of 5 years. The profile of teachers at Ivy on the other hand included a mean age of 24.8 years, with less teaching experience than teachers at Fairfield (mean=3.7 years), and half of them did not have any training in early childhood. The highest certification in early childhood received by two of the teachers at Ivy was a Certificate in Preschool Teaching. However, Ivy's teachers had higher levels of formal education than those at Fairfield.

The reason why teachers' expertise, educational level and training in early childhood matter is because these factors are so much intertwined with the development of teacher beliefs and effective classroom practices. Using the Early Childhood Environment Rating Scale, Retas and Kwan (2000) found that in mediocre and high-quality centres in Singapore, more than 70% of the teachers have 'A' level/diploma/degree certification and 90% received training in early childhood and more than half possessed a diploma/degree in early childhood. On the other hand, most teachers in the low-quality centres were found to have only some secondary school education with the majority having only basic and intermediate certification in early childhood. More than a quarter of the teachers did not have any early childhood training. Relating these findings to the teacher profile in Table 3.1, it is evident that they tend to pattern with the low-quality centres identified by Retas and Kwan.

**Table 3.1** Profile of teachers at the two centres, Fairfield and Ivy

Profile	Teachers at	
	Fairfield ( <i>n</i> =9)	Ivy ( <i>n</i> =8)
Experience		
Less than 1 year	2	1
1–5 years	3	5
6 years and more	4	2
Academic qualification		
GCE 'O' level	5	4
GCE 'A' level	3	1
Diploma	1	2
Bachelor's degree	–	1
Highest level of early childhood training		
None	4	4
Certificate in Preschool Teaching (CPT)	2	3
Diploma in Preschool Education	2	–
Bachelor's Degree in Early Childhood Education	–	–
Others	1	1

## ***Instruments and Procedures***

Three types of research instruments were used to collect and triangulate the data for the study. These included teacher survey, classroom observation and classroom artefacts.

### **Teacher Survey**

The teachers were asked to fill out two questionnaires. The first was distributed and collected at the start of the observations. To ensure anonymity, the two centres helped distribute and collate the questionnaires. Questions on their commitment to teaching and to the centre, sense of efficacy for classroom management and instructional strategies, their knowledge of specific early childhood domains and pedagogy and issues on school preparedness were posed to the teachers.

At the end of the observation phase, another questionnaire was given to the teachers. In the second questionnaire, they were asked to evaluate their literacy practices and their beliefs on literacy teaching and learning. In both questionnaires, a 5-point Likert scale rating was used. A total of 158 items, divided into 26 sections, were asked. Some of the questions were adapted from a survey instrument used by CRPP/NIE (Shun 2008) intended to investigate teachers' beliefs. The survey instrument also considered a few relevant items from the *Literacy Acquisition Perception Profile* (McMahon 1996) and *Teachers' Beliefs about Literacy Questionnaire* (Westwood et al. 1997) which were adapted to suit the local context and educational perspectives. This chapter will only report on a subset of the survey questions, specifically those that are related to (1) teacher beliefs on literacy acquisition and (2) teachers' literacy practices. It is not only necessary to discern teachers' beliefs, it is also important to obtain self-reported data on classroom pedagogical strategies to find out what the teachers believe they do in the classroom. Teachers' self-report of beliefs and teachers' self-report of practices were then matched to the observation of classroom practices.

### **Classroom Observation**

Data which detailed the activity structures and types of instructional materials were collected. The principals of the centres were asked to select two classes for inclusion in the study – one kindergarten 1 (K1) and one kindergarten 2 (K2) class where the children were 5 and 6 years old, respectively. The duration of each classroom observation typically coincided with a start and end of a particular theme which generally averages 2 weeks. All the lessons were video-recorded, and all the classroom activities and instructional materials were noted in the coding instrument. At each centre, two researchers sat at the back of the class to observe and take copious notes of the classroom routines and series of activities. There was minimal

interaction between the researchers and the teachers or children. At the end of each observation, the two researchers discussed their observations to obtain agreement on the observed classroom practices.

A structured coding instrument was used to take note of the classroom pedagogy and practices employed by the teachers. The coding instrument was an adaptation of Luke et al. (2005). The original coding instrument by Luke et al. was created for use in primary and secondary school classrooms. A few changes were made to customize the instrument to make it more suitable for an early childhood environment. The items in the instrument included:

- The classroom spatial organization
- The activity structures (whole class teaching, teacher-led discussion, group work, individual seatwork, choral repetition/reading/reading, free play, etc.)
- Engagement and time on task
- Identifying types of teacher talk (curriculum, regulatory, informal, etc.)
- Identifying the sort of scaffolding provided by the teachers

The tools used by both teachers and children, such as visual aids (e.g., flashcards), audio-visual resources, textbooks and realia, were also identified. The instructional focus of the English and Malay lessons was also noted: whether the teacher's classroom instructions centred on developing the children's listening, speaking, reading or writing skills.

### **Classroom Artefacts**

The instructional materials used by the teachers in the classroom, as well as samples of 'work' assigned to the children, were collected, scanned and saved as evidence of classroom materials.

### **Analysis of Data**

A one-way analysis of variance was used to compute the means for the teachers' responses to questions on beliefs on literacy acquisition and classroom practices, and a between-groups analysis was carried out to compare the mean scores of the two centres on each item to determine if the differences were statistically significant ( $p < .05$ ). With regard to the classroom observation data, the observed patterns of classroom routines, the pedagogical practices, as well as specific activities carried out during the observation period were noted and matched to questionnaire items of beliefs and practices. Classroom artefacts which functioned as documentary evidence of the classroom practices observed were used to further reinforce the findings from the questionnaire and classroom observations.



## Findings

### *Teacher Survey*

Included in the questionnaire was a set of questions intended to elicit teachers' basic beliefs on classroom instruction and pedagogical approaches. A high score indicated that their delivery and approach were more teacher centred and focused on developing basic skills through repetition and the assignment of a series of monotonous, unvaried tasks. The data in Table 3.2 reflect the substantial difference in the approach undertaken by teachers at the two centres.

At Fairfield, the low scores indicate that the teachers were generally averse to activities which involve completing worksheets or exercises in workbooks (in fact, based on observation data, they did not have any) or to repetitive activities. They claimed to almost never assign homework. Nonetheless they did encourage some knowledge recall, as shown in item 2a.

On the other hand, the teachers at Ivy rated the items in Table 3.2 very highly, pointing towards a more conventional teaching model. They placed a great deal of emphasis on developing basic skills through repetitive tasks and reinforcement through workbook activities and homework. In fact, it was later found that every semester, each child had to complete two workbooks for each 'subject' – English, Malay and Numbers. Data in Table 3.2 also suggest that when curriculum and teaching were driven by assessment and/or Primary 1 readiness, the teaching approach and classroom practices tended to emphasize developing basic literacy skills. Thus, higher scores for assessment/school preparation (2f and 2g) tended to align with higher scores for "features of conventional teaching model".

**Table 3.2** Teachers' beliefs on classroom practices and pedagogical approaches

Classroom practices	Fairfield		Ivy		<i>p</i>
	Mean	SD	Mean	SD	
Features of a conventional teaching model					
2a. I encourage the children to recall what they have learnt	3.67	.500	5.00	.000	.000*
2b. I address the whole class when I teach	3.44	.882	5.00	.000	.000*
2c. I ask the children to do worksheets or workbooks	1.22	.441	4.88	.354	.000*
2d. I ask the children to do similar tasks/activities to understand a particular topic	2.67	1.00	4.25	.463	.001*
2e. I assign homework to the children	1.33	.707	4.50	.756	.000*
Assessment/school preparation					
2f. I emphasize studying for what will come out in the assessment	1.22	.833	4.00	1.39	.000*
2g. Nearly all of my teaching focuses on preparing for Primary 1	1.67	1.00	4.62	.518	.000*

Note: Likert scale: 1 never, 2 seldom, 3 sometimes, 4 often, 5 always

\*difference is statistically significant ( $p < .05$ )

**Table 3.3** Teachers' beliefs on the importance of correctness

Beliefs of correctness	Fairfield ( <i>n</i> =9)		Ivy ( <i>n</i> =8)		<i>p</i>
	Mean	SD	Mean	SD	
3a. Oral reading mistakes should be corrected immediately	3.67	.500	4.17	.753	.144
3b. Children should be encouraged to spell correctly	3.89	.601	4.33	.816	.245
3c. In order for children to remember new words, repetition is important	4.22	.441	4.33	.516	.662
3d. I encourage children to express themselves in complete sentences	3.67	.500	4.17	.753	.144

Note: Likert scale: 1 strongly disagree, 2 disagree, 3 neutral, 4 agree and 5 strongly agree

Data in Table 3.3 further support a picture of 'traditional pedagogy' in Ivy kindergarten. Repetition for the purpose of recall and correctness was valued in both centres but more strongly so at Ivy. However, the differences between the two groups on these items (3a–d) were not statistically significant. The more important question might be: How did these differences in beliefs as evidenced by the survey play out in classroom practice?

### *Linking Practices to Beliefs*

#### **Match Between Teachers' Beliefs and Practices**

There is a strong connection between what teachers in the two kindergartens believed (their beliefs on literacy practices and what they believed they had been doing in the classroom) and what they actually practiced. Two major beliefs were indicated from the survey: a more child-centred approach to early childhood instruction and an orientation towards developing basic skills.

#### More Child Centred: Fairfield

In a class of 22 (K2) and 16 (K1) children, learning and play were generally carried out in small groups. A typical school day started with some singing or story reading, followed by whole class discussion. In the K1 class, these series of activities were followed by free independent activities where children could go to any learning corner, while a group of 4 would carry out some activities together with the teacher. For instance, in a lesson on 'comparisons', the teacher filled two pails with different amounts of water and other objects, and the children were asked to say out loud and label (using the word cards provided) which pail was 'heavier' or 'lighter'. No formal written work was assigned. These classroom activities matched items in Table 3.2 (2c–e) where teachers indicated that they do not ask the children to

complete worksheets nor do they assign homework. In fact, when asked, the teachers shared that the educational thrust of their centre is in providing varied literacy experiences and an authentic pedagogy which encourages children to learn by engaging in their surroundings and through real-life experiences and not by completing worksheets or workbooks.

During the 2-week observation period, the K2 class covered the theme 'the weather', particularly focusing on 'rainy day', with 'water' as the subtheme. Activities during those 2 weeks included whole class discussions, reading books about the weather, talking about the water cycle and finally culminating in a field trip to the reservoir. The children were also given hand-outs on how to create their own mini water distillation system, and they were told they could carry it out at home with their parents. The only written work the children were asked to do was to write five sentences about 'the rainy weather' – one in English and a comparable one in Malay. They were told to draw on their experiences in and out of the classroom to write this short piece. These classroom observations further support the self-report data in Table 3.2.

Classroom practices at Fairfield reflected a child-centred orientation. Teachers allowed children to opt out of activities and allowed a child to leave an activity or task before finishing it. The children learnt through active exploration and manipulation of real objects. Homework was also not given. During 'free play', writing materials were always made available for the children to draw, scribble or 'write'. The children at Fairfield enjoyed the luxury of space to move around in the classroom and to engage in the different activities made available at the different learning corners. There were a number of learning centres in each classroom for the children to socialize and engage in individual or group play. These included the reading corner with its well-stocked library and posters of nursery rhymes, the maths and science corners with a number of manipulatives for exploratory learning, an art corner, a play corner with building blocks, puzzles and other toys, as well as a dress-up corner.

### Skills-Oriented: Ivy

In a class of 18 (K2) and 23 (K1) children, everyone did the same thing at the same time for the most part, except when the children had completed their work and were given 'free choice' to decide on which play corner they would like to engage in. During the undirected, free-choice activity, children decided on the play corner they would like to go to. The classrooms at Ivy were small, and due to the limited space, there were only a few play 'corners' that served as learning centres. These included a language centre which was sparsely furnished with posters and a few books, some of which were old and torn, a play corner with toys, a maths corner with some manipulatives and a mini science corner with a few posters.

A school day at centre Ivy typically started with whole class instruction, followed by individual seatwork where in most instances all the children completed the same task at the same time or occasionally took turns to work on the teacher-

assigned individual work, seated in small groups. These observed activities matched closely to the questionnaire items 2b and 2c in Table 3.2. In almost all cases, the preamble to completing individual written work (worksheets or workbooks) was the teacher going over the entire assignment, by eliciting responses and subsequently providing the 'correct' answers. These answers were written down on an enlarged version of the written piece/worksheet, which the children then reproduced in their own individual worksheets. This practice prevalent at Ivy was a corollary of their beliefs and emphasis on correctness, as shown in Table 3.3.

It was observed that lessons at Ivy were highly structured with carefully sequenced tasks and duplicated or repetitive practice and review processes in place. Instruction was also very teacher-directed, typically beginning with teacher-initiated questions, followed by children's response. These observations matched self-report data on beliefs and perceived practices found in Table 3.2. Teacher questions were almost always closed ended, requiring children to respond to 'who', 'what', 'where' and occasionally 'why' questions. The teacher then evaluated the response by saying 'good' or 'well, not really'. These cycles of teacher question, children respond and teacher evaluate reflect an IRE structure (initiate-respond-evaluate) (Cazden 1986), which recurred very frequently in the classroom. Another indication of the highly structured orientation was evident by the class timetable where curriculum time was divided by subject areas.

A basic skills orientation is linked to a learning theory in which cognitive competencies are assumed to be transmitted according to the principles of repetition and reinforcement. Learning occurs when children repeat appropriate responses to teacher-produced stimuli and is facilitated by breaking tasks and responses into discrete, carefully sequenced units (Stipek and Byler 1997). Overall, the classroom practices at Ivy indicated an orientation towards developing children's basic skills. Worksheets and workbooks were a way for children to master academic skills such as math and reading. The children were always expected to work silently and independently through repetition by duplicating 'teachers' answers'. The teachers emphasized the importance of quality in final products which were expected to be error-free, and hence they typically resorted to providing correct answers.

Teachers at Ivy gave high ratings for items (2e-f). They believed that the syllabus and their classroom instruction should be assessment-driven and should prepare the children for primary school. Observation data confirmed this belief. The nature of the tasks at Ivy was found to be repetitive with the intent of reinforcing children's understanding of the necessary, basic concepts. Each semester, a child had to complete six workbooks – two each for English, Math and Malay. The rationale for this practice, as shared by the principal, was parents' expectations. Parents perceived this type of curriculum with a 'high academic focus' that included a ritual of repeated tasks and drilling as a necessary and highly desirable practice in order to prepare their children for entry into primary school. What was shared by Ivy's principal seemed to be in contrast to the findings from Lim and Torr's (2007) study which found that Singapore teacher beliefs were influenced by professional training and experience instead of parents' expectations. Perhaps to some extent, teachers'

practices are influenced by parents' expectations. This finding matched those found by Tan-Niam (2000), Stipek and Byler (1997) and Stipek et al. (1992) where parents' expectations had the power to influence curriculum. When asked, teachers at Ivy shared that they believed in drill and repeated tasks because they helped ready the children for primary school education, alluding to a perceived smooth transition from kindergarten to primary school.

Thus far, it has been shown how classroom practices seemed to pattern closely with teachers' beliefs. In the next section, I show instances of how some practices appear not to match beliefs.

### ***Apparent Mismatch between Teachers' Beliefs and Observed Practices***

In the survey, teachers were asked to self-report the frequency of reading and writing practices in their instruction, as well as the frequency of written work they assign. The scale for this set of questions is 1, never; 2, seldom; 3, sometimes; 4, often; and 5, always. Teachers' responses are given in Table 3.4.

Teachers at Fairfield indicated they often got the children involved in reading and writing activities daily. A daily routine in which the K1 teacher would carry out shared book reading in both English and Malay was witnessed. While the children were read to daily, they were rarely involved in the reading process, and there was no overt attempt to teach them how to read. The K2 teacher was also observed reading to the children albeit not on a daily basis.

During the 2-week observation period, there was hardly any writing in the K1 class. The teacher later shared that she believed the development of writing skills was not a priority for children at this level and that it was the centre's practice to focus on developing this skill only at K2. She further elaborated that only in the later part of the K1 year would writing be introduced into the curriculum. Perhaps the difference in the teacher-reported data on writing in Table 3.4 and the observed data can be explained by the fact that the classroom observations were made in the early part of the academic year when the instructional focus was more on developing the children's oral skills and to help build a positive attitude towards engagement with print. In the K2 class, there was some writing using a modified language experience

**Table 3.4** Teachers' perceptions of their practices

Classroom practices	Fairfield ( $n=9$ )		Ivy ( $n=8$ )		$p$
	Mean	SD	Mean	SD	
4a. I involve the children in reading experiences every day	3.78	.441	4.25	.886	.177
4b. I involve the children in writing experiences every day	3.78	.667	4.75	.707	.011*

\*difference is statistically significant ( $p < .05$ )

approach. According to Wong (2010), the language experience approach, a strategy proposed by Stauffer (1970), makes use of the students' "prior knowledge and real-life experiences (experience) to engage them in writing (language)" (p. 157). Unlike the original language experience approach, the modified approach involves some negotiation of the input for spelling and grammatical correctness. This was observed taking place about twice a week on a topic related to the theme – one in English and the other in Malay. The Modified Language Experience Approach practiced at this centre used the children's own/shared experiences, vocabulary and language patterns to scaffold the writing process. In one instance, the teacher provided content scaffolding by leading a discussion on the pertinent points related to the theme at the start of the lesson. Children were then encouraged to offer their views, and the teacher wrote these down on a blank piece of paper to create a big mind map: after which, some of the words were selected to serve as 'helping words' for the writing activity. The children's input formed the basis for the individual writing task.

When a few of the children asked for help with the individual writing assignment (to write five sentences on the topic just discussed as a whole group), both teacher and assistant teacher resorted to spelling out the words and even writing down entire sentences for the children on small pieces of paper for the latter to reproduce in their notebooks. This practice could possibly be linked to item (3b) in Table 3.3 where the teachers gave a high rating for the item on correctness – 'Children should be encouraged to spell correctly'. In fact, no encouragement of creative spelling was observed. The teacher also rarely exemplified behaviours in which they helped the children get at the spelling of a word through phonemic awareness.

Based on the self-report survey data, teachers at Ivy claimed they involved the children in reading and writing exercises daily, in fact more frequently than teachers at Fairfield. Classroom observations showed that while the children were indeed exposed to some reading and writing activities daily, these were usually targeted at developing rudimentary literacy skills and were almost always limited to reproduction of teacher-dictated answers. The teachers relied heavily on workbooks and worksheets, and reading was largely limited to reading aloud the instructions and text on the worksheets. Writing activities were generally repetitive and usually involved reproductions of teachers' answers. The typical practice was one which involved teachers reading the instructions aloud, soliciting responses and writing down the correct single word or short answers on an enlarged printout for the children to reproduce in their own copies. Crucially this shows the teachers' differing perceptions of what counts as reading and writing experiences. Normally, one would not consider these types of activities at Ivy kindergarten as instances of reading and writing because they did not involve authentic and meaningful interactions with print. However, to these teachers, activities like copying teachers' answers are instances of writing and a means of developing children's literacy skills. Hence, what may seem like a mismatch between beliefs and practices is in fact not, at least from the perspective of the mostly untrained teachers at Ivy.

## Discussion and Possible Implications

Because of the small sample size, these findings should be interpreted cautiously. There are, nonetheless, some interesting correlations between beliefs and practices of teachers from the two centres. Teachers who emphasized developing basic skills were found to focus their teaching on 'preparing' children for the rigours of primary schooling. This was probably done to ensure that children mastered the basic skills the teachers perceived the children would need in primary school. On the other hand, teachers who were more child-centred in their instructional practices demonstrated that they were also concerned with developing children's non-academic abilities which included their social and communication skills, self-confidence and positive attitudes towards learning.

Another possible reason for the different orientations adopted by the centres may be the level of early childhood training the teachers had received. Where a skill-centred approach was favoured at Ivy, teachers had little or no training and, as a corollary, may not have been aware of developmentally appropriate classroom practices or had limited knowledge to guide them in planning a curriculum which would expand children's learning, development, skills and strategies.

What have been presented thus far are instances in which teachers' beliefs appeared to be stronger than practices. In other words, the score for some self-report data on practices was higher than actual, observed practices. This difference could be attributed to the teachers' differing views and understanding of certain concepts and practices. For instance, when teachers at Ivy claimed in the survey that they involved children in reading and writing activities daily (Table 3.4) but observation data showed otherwise, this does not necessarily mean a mismatch between beliefs and practices. For this group of teachers, the concept of reading and writing may be very broad and inclusive – it may include all instances of engagement with any text types. As such, even repeating after the teachers' reading may be perceived as an instance of 'reading'. Perhaps this too could be attributed to the lack of early childhood training. A question for future research is to determine whether teachers who engage in didactic instruction do so simply because they lack early childhood training in other options or because they do not think that children are capable of self-directed learning. It will also be interesting to find out whether children in highly structured, teacher-directed classrooms do eventually develop an ability to direct their own learning.

### *The Transition from Kindergarten to Primary School*

Another point worth discussing is the transition from kindergarten to primary school. Based on data shown in Table 3.2, teachers at Ivy indicated that they believed it was important to ensure that their classroom instruction was aligned to assessment

and primary school readiness. Their observed practices seemed to have borne out of this belief. A number of studies have shown that a smooth transition (from home) to school is able to contribute positively to a child's academic achievement and social competence (Dockett and Perry 2003; Ramey et al. 1998).

In 2006, STELLAR (Strategies for English Language Learning and Reading) was introduced as a programme to develop literacy in the English classroom at primary level. The three strategies that underpin STELLAR include (1) the Shared Book Approach, (2) the modified language experience approach, and (3) the use of learning centres in the classroom. The Shared Book Approach is used in lower primary classrooms to introduce and share a Big Book with the students and to teach "language items, structures and skills explicitly, including concepts of print, phonics and grammar" (MOE n.d.). The modified language experience approach is used as a follow-up to the Shared Book Approach which provides the shared context and content. Children's input which is transcribed by the teacher forms the basis for group and individual writing. Because the input is negotiated for grammatical accuracy, this approach is termed 'modified' language experience approach in Singapore. Finally, language skills learnt using both shared book and modified language experience approaches are reinforced in the learning centres where activities for students of different abilities are made available for self-directed exploratory learning.

Based on the classroom observations made at both kindergartens, it is evident that the literacy practices present at Fairfield kindergarten are similar to the strategies outlined in the STELLAR curriculum. This strong connection in terms of similar pedagogical approaches to develop literacy should facilitate a smoother and, possibly, a more successful transition to Primary 1 for children from Fairfield compared to their peers from Ivy. This is the case even though teachers at Fairfield indicated in the survey that primary school readiness was not their main priority when they planned their lessons, as shown in Table 3.2. Perhaps it is useful for kindergartens like Ivy to review their classroom practices and considering aligning them to those implemented at the lower primary level, especially since they believe that what they have been doing prepares the children for Primary 1. Studies could be conducted to look into this area of transition to school.

### *A Customized Pedagogical Approach for the Singapore Malays?*

Another point worth exploring in future research is identifying which pedagogical approach best suits the needs of Malay children and yields more positive student outcomes. Barr and Low (2005) suggested that Malay families favour a curriculum structure that places some importance on developing children's social skills, in tandem with the stereotypical perception of the Malays as a group which places "high value on family, motherhood, social skills, inter-personal relations and personal virtues like generosity" (p. 90). The authors noted that one of the main reasons some Malay families were reluctant to send their children to the mainstream PCF kindergartens was because of their academic and exam-oriented system. However, whether



a curriculum that offers an orientation towards developing children's social skills translates into better educational achievement for Malays in the long run is still unclear. This can only be verified by future long-term studies that look at the relationship between different academic orientations and student outcomes.

Overall, the findings from the two centres show relationships between teacher beliefs and practices. The survey data revealed two distinct beliefs: an orientation towards developing basic skills and a more child-centred approach. Teachers who employed a more conventional teaching model which emphasized developing rudimentary literacy skills did so to prepare the children for primary school. Teachers who employed more child-centred practices did so to develop the children's literacy skills as well as their social and communicative competence. The findings from the study also revealed instances in which teachers' self-report of beliefs and practices appeared to be stronger than actual, observed practices.

## References

- Ang, L. L.-Y. (2006). Steering debate and initiating dialogue: A review of the Singapore preschool curriculum. *Contemporary Issues in Early Childhood*, 7(3), 203–212.
- Barr, M. D., & Low, J. (2005). Assimilation as multiracialism: The case of Singapore's Malays. *Asian Ethnicity*, 6(3), 161–182. doi:10.1080/14631360500226606.
- Cazden, C. B. (1986). *Classroom discourse*. New York: Macmillan.
- Clay, M. (1991). *Becoming literate: The construction of inner control*. Portsmouth: Heinemann.
- Dockett, S., & Perry, B. (2003). The transition to school: What's important? *Educational Leadership*, 60(7), 30–33.
- Eisenhart, M. A., Shrum, J. L., Harding, J. R., & Cuthbert, A. M. (1988). Teacher beliefs: Definitions, findings, and directions. *Educational Policy*, 2(1), 51–70. doi:10.1177/0895904888002001004.
- Ernest, P. (1989). The knowledge, beliefs and attitudes of the mathematics teacher: A model. *Journal of Education for Teaching*, 15, 13–34. doi:10.1080/0260747890150102.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, 38(1), 47–65. doi:10.1080/0013188960380104.
- Frerichs, L. C. (1993, April). *Kindergarten teachers' perceptions and practices in reading/language arts*. Paper presented at the 43rd annual meeting of the national reading conference, Charleston, SC. ERIC ED365934. Retrieved from [https://archive.org/details/ERIC\\_ED365934](https://archive.org/details/ERIC_ED365934)
- Kagan, D. (1992). Implications of research on teacher belief. *Educational Psychologist*, 27, 65–90.
- Lim, C., & Torr, J. (2007). Singaporean early childhood teachers' beliefs about literacy development in multilingual context. *Asia-Pacific Journal of Teacher Education*, 35(4), 409–434. doi:10.1080/13598660701611412.
- Luke, A., Cazden, C., Lin, A., & Freebody, P. (2005). *A coding scheme for the analysis of classroom discourse in Singapore*. Unpublished report, National Institute of Education, Centre for Research in Pedagogy and Practice.
- McMahon, R. (1996). *Literacy acquisition perception profile (LAPP)*. The Montana Early Literacy Project, Division of Educational Research & Service, University of Montana. Retrieved from <http://iers.umt.edu/docs/melpdocs/literacyacquisitionperceptionprofile.pdf>
- McMullen, M. B. (1999). Characteristics of teachers who talk the DAP talk AND walk the DAP walk. *Journal of Research in Childhood Education*, 13(2), 216–230. doi:10.1080/02568549909594742.
- Ministry of Education. (2003). *A framework for a kindergarten curriculum in Singapore*. Singapore: Tien Wah Press. Retrieved from <http://www.moe.gov.sg/education/preschool/>

- Ministry of Education. (2007). *Levelling up opportunities: Improving the quality of pre-school education and increasing participation in pre-schools*. [Press release]. Retrieved from <http://www.moe.gov.sg/media/press/2007/pr20070307c.htm>
- Ministry of Education. (n.d.). *STELLAR: Lower primary strategies*. Retrieved from <http://www.stellarliteracy.sg/cos/o.x?c=wbnpagetree&func=view&rid=1145465>
- Orton, R. E. (1996). How can teacher beliefs about student learning be justified? *Curriculum Inquiry*, 26(2), 203–217. doi:10.2307/1180040.
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. doi:10.3102/00346543062003307.
- Ramey, S., Lanzi, R., Phillips, M., & Ramey, C. (1998). Perspectives of former Head Start children and their parents on school and the transition to school. *The Elementary School Journal*, 98(4), Special Issue: Transitions, 311–327. doi:10.1086/461898.
- Retas, S., & Kwan, C. (2000). Preschool quality and staff characteristics in Singapore. In C. Tan-Niam & M. L. Quah (Eds.), *Investing in our future: The early years* (pp. 53–65). Singapore: McGrawHill.
- Richardson, V., Anders, P., Tidwell, D., & Lloyd, C. (1991). The relationship between teachers' beliefs and practices in reading comprehension instruction. *American Educational Research Journal*, 28(3), 559–584. doi:10.3102/00028312028003559.
- Sharpe, P. (2002). School days in Singapore: Young children's experiences and opportunities during a typical school day. *Childhood Education*, 79(1), 9–14. doi:10.1080/00094056.2002.1052757.
- Shun, L. (2008). *Teacher beliefs*. Unpublished report, National Institute of Education, Centre for Research in Pedagogy and Practice.
- Smith, M., & Shepard, L. (1988). Kindergarten readiness and retention: A qualitative study of teachers' beliefs and practices. *American Educational Research Journal*, 35, 307–333. doi:10.3102/00028312025003307.
- Stauffer, R. G. (1970). *The language experience approach to the teaching of reading*. New York: Harper & Row.
- Stipek, D. J., & Byler, P. (1997). Early childhood education teachers: Do they practice what they preach? *Early Childhood Research Quarterly*, 12, 305–325. doi:10.1016/S0885-2006(97)90005-3.
- Stipek, D. J., Milburn, S., Clements, D., & Daniels, D. H. (1992). Parents' beliefs about appropriate education for young children. *Journal of Applied Developmental Psychology*, 13, 293–310. doi:10.1016/0193-3973(92)90034-F.
- Tan-Niam, C. (2000). Facilitating fantasy play in the early years. In C. Tan-Niam & M. L. Quah (Eds.), *Investing in our future: The early years* (pp. 140–150). Singapore: McGrawHill.
- Vartuli, S. (1999). How early childhood teacher beliefs vary across grade level. *Early Childhood Research Quarterly*, 14, 489–514. doi:10.1016/S0885-2006(99)00026-5.
- Westwood, P., Knight, B. A., & Redden, E. (1997). Assessing teachers' beliefs about literacy acquisition: The development of the teachers' beliefs about literacy questionnaire (TBALQ). *Journal of Research in Reading*, 20(3), 224–235. doi:10.1111/1467-9817.00034.
- Wong, R. (2010). *Teaching writing at the lower primary level. Developing literacy in the English classroom*. Singapore: Pearson.

# Chapter 4

## Commentary on ‘Transitions’

Bob Perry

### Introduction

Transition to school is an important process for all involved – children, families, educators and communities. Transition has been described as a process of opportunities, expectations, aspirations and entitlements of all involved (Educational Transitions and Change (ETC) Research Group 2011). It is also a process whereby children change their status within the community – from preschool child to school child – and families change from preschool family to school family (Rogoff 2003).

During any transition, there is quite naturally an emphasis on the destination, where one is going, and a consequent de-emphasis on the origin or origins, from where one has come. With the transition to school, this results in the emphasis being on the school and much less on the home or prior-to-school experiences for the child and family. The argument is often put that this emphasis on the destination is entirely appropriate because of the differences that there will inevitably be between the format, structure, values, demands and support of the school compared to the origin settings. However, some aspects of a child’s transition to school do carry over from origin to destination, not the least being the child him/herself, the family and the values and beliefs imbued in the years before the child starts school. In reference to Australian Aboriginal children, but applicable to all children and families, colleagues have referred to the “fire stick”.

We not only use the term ‘transition’ which can imply a one-way journey towards something better, but also the term ‘fire stick’ period (an Aboriginal term for a stick that is kept alight to ensure the availability of fire). This highlights the way in which culture is not something to be left behind, but is an integral part of [children’s] lives. ... [Children] need to adjust to an extra range and layer of experiences, demands and expectations relating to

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cultural, language, and social skills. If these children are to succeed in the school context then they must know that it is safe and acceptable to move backwards and forwards between these cultures. ... the ‘fire stick’ period equates with the time needed for [children and families] to learn how to navigate between their home and school cultures. For young children beginning their school lives, it is critical that this time is framed in a climate of mutual trust and respect. (Clancy et al. 2001, p. 57)

While it is clearly very important to consider what will happen to children and their families in the primary schools to which they make their transitions, and we know that this makes a difference to the success of such transitions, we also need to consider what the children and families bring with them from their earlier experiences and learning. For me, the two chapters in this section prompt a great deal of thinking about continuity with and change from what has come before as children start school. What is the nature of the “fire stick” carried by children in quadrilingual Singapore?

## The Chapters

*In Transmission and development of literacy values and practices: An ethnographic study of a Malay family in Singapore*, Mukhlis Abu Bakar (this volume) raises many important issues that can impact on the success of a child’s transition to school. Even though the chapter is focused on literacy values and practices, it has a much broader remit because of its emphasis on the nature and underlying affective components of family practices and their relationship to expectations of school values and practices. As well, the emphasis on the importance of interactions and relationships among all involved fits well with many of the accepted approaches to the study of school transitions (Dockett and Perry 2007; Pianta and Cox 1999).

In his chapter, Abu Bakar analyses the literacy values and practices of one Singaporean family and considers the impact of these on children’s school experiences. However, he does more than this. In particular, he considers how the school literacy practices might impact those in the family. This ‘two-way’ consideration is most welcome.

The parents of the observed family were critical of their own education, particularly in terms of religious education. Hence, for the parents, “The motivation for continuing to learn was partly religious”. This was also partly the motivation for sending the children to a mosque kindergarten. However, as the children move to primary school, a “painful” decision is made to send the children to a neighbourhood school rather than an Islamic school.

Many of the family literacy practices are based in the parents’ experiences with their own literacy and religious learning. Not only are texts, including television programmes and books, chosen with an eye to their religious value as well as their literary value, the father also recalls that he was not introduced to books early in his life and he “did not want that to happen to his children”. So, while the mother preserved many of the practices that she had experienced as a child, her husband

made substantial changes. This recalls many of the conversations about memories of starting school that have been reported recently by Turunen and Dockett (2013).

Many positive literacy experiences were had by the children – regular reading from and with parents, relating of book reading to real-life experiences and modelling of writing by and with older siblings. Nevertheless, there were anxieties for both parents and children as the literacy experiences in primary school began to impact on the home experiences of the child yet to go to school. The parents felt that they had learned from their older child’s experiences and their own, and, using the considerable cultural and economic capital the family had, they set about ensuring positive transition experiences for all concerned.

Impacts on children’s literacy can be two-way between home and school and the family studied in this chapter was able to mediate these impacts to some extent. However, the perennial issue of how much children’s home experiences are used by schools to help develop their literacy skills and knowledge is still moot. In any transition to school, the school usually supplies most of the change and the family endeavours to supply most of the continuity (Brooker 2008). Excitement, motivation for learning and new identities arise from change, with continuity providing much-needed stability. As Abu Bakar illustrates so clearly, what is needed is an appropriate compound of both.

In *“I believe, therefore I practice”*: Teachers’ beliefs on literacy acquisition and their classroom practices, Norhaida Aman (this volume) considers the impact on children’s early literacy and transition to school of kindergarten teachers’ beliefs and practices from two Singaporean kindergartens. While there is much interesting information in the chapter concerning the development and measurement of the teachers’ literacy beliefs, the major question raised from a transition to school point of view is about the relative importance of continuity and change between beliefs held by teachers in kindergarten and primary school and consequent practices as the children start school.

The chapter gives a detailed picture of teachers’ beliefs at the two kindergartens, showing that there were quite strong differences between the two groups of teachers. At one kindergarten, the norm seemed to be child-centred, activity-based learning with no homework, while at the other there was “a more conventional teaching model” which placed much emphasis on basic skills, repetitive tasks, workbooks and homework. (As an aside, such an approach would be deemed by many Australian prior-to-school educators as a ‘school model’ rather than a conventional early childhood.) Observations of classes reinforced these differences, suggesting that there is much more than individual teacher beliefs influencing practice in these settings (or, perhaps, only teachers who effectively hold the ‘beliefs of the setting’ are employed there). As might be expected and has been reported widely (Lara-Cinisomo et al. 2009; Stipek and Byler 1997), there was some slippage between individual teachers’ beliefs and their practices but the differences in beliefs were reflected in practice to a large extent.

In the section titled “The transition from kindergarten to primary school”, Aman raises the challenge of whether the nature of kindergarten teachers’ literacy beliefs and practices need to align with the practices undertaken in primary schools. There

are three major questions that need to be asked about this challenge. Firstly, one needs to ask, 'What might make the primary school practices the benchmark for successful literacy learning by children at both the primary and kindergarten levels?' Secondly, while one kindergarten specifically mentioned children's school readiness as one of their aims and the other did not, they both seemed to be keen to ensure a smooth transition from kindergarten to school. They just seemed to have different ways of aiming to achieve this. So, is it even reasonable to be looking for one way of ensuring a smooth transition? Thirdly, while literacy is undoubtedly an important aspect of children's transition to school, it is certainly not all that is involved and, maybe, not even the most important component. So, why should approaches to literacy learning and teaching be privileged above other components of successful transitions such as the building of sound relationships and identities?

## Conclusion

At the beginning of this piece, I introduced the notion of transition to school being about opportunities, expectations, aspirations and entitlements for all involved. In the two chapters in this section, these constructs have been emphasised, sometimes implicitly, by both authors. While the topic of both chapters is young children's literacy development and the roles of the children's educators – both parents and teachers in kindergartens and school – in this development, there is much that can be analysed through the four constructs.

The driving force behind the actions of the parents in Abu Bakar's chapter (this volume) seems to be the provision of opportunities for learning for their children (and themselves) as they move from home/kindergarten to primary school. Sometimes they remember these as missed opportunities in their own lives and a determination has built to ensure that their children do not miss them. It would seem clear that the provision of high-quality learning opportunities is the major impetus for the kindergarten teachers in Aman's chapter (this volume), even though their ways of thinking and going about their provision might be different.

In every transition to school, all the stakeholders have expectations about their roles and the opportunities that might be available to them. These expectations arise from knowledge and experiences that have often been derived from literacy experiences. Older children, family members and teachers talk with children about what school will be like. There are very many children's books about starting school (Dockett et al. 2006) and lots of people have memories about school (Turunen 2012) that they are happy (or, perhaps, not so happy) to share. Children listen to what teachers tell them about school, and, sometimes, they get the opportunity to draw how they feel about becoming a school child. Expectations can act differentially on children as both accelerants for their learning and as retardants. All people involved in a child's transition to school need to be aware of these potentials.

Clearly, from both chapters, the role of aspirations can be seen clearly. Children have aspirations to be as 'good' a school child as they can be, not only but including

academic achievement. Parents have high aspirations for their children and, sometimes, try to ensure that these aspirations are reached through unnaturally filling their children with school knowledge before they start school. While there is some evidence to show that children may be better placed initially for school transition if they have more knowledge, it seems as though schools have a levelling effect, which means that these apparent advantages do not necessarily last, even through primary school (Martin 2009). Teachers, individual schools and education systems all have aspirations for children starting school. For example, the [Ministry of Education, Singapore \(n.d.\)](#), suggests that the mission for the Education Service is

to mould the future of the nation, by moulding the people who will determine the future of the nation. The Service will provide our children with a balanced and well-rounded education, develop them to their full potential, and nurture them into good citizens, conscious of their responsibilities to family, society and country. (para 4)

Under the *UN Convention on the Rights of the Child* (United Nations 1989), all children have a right to primary education and to an education which develops their potential to the full. Singapore clearly values its citizen's (including its children's) education highly and it is in this context of entitlement that transition to school occurs. Parents, families, teachers, preschools and schools all have entitlements as children start school. Both chapters in this section recognise these rights as they explore various aspects of school transition.

All participants in children's transition to school carry a "fire stick". They are not only going somewhere or "becoming"; they are also coming from somewhere. They are, they have been and they belong (Department of Education, Employment and Workplace Relations, 2009). Children's literacy experiences do not begin as they enter primary school, and, as has been confirmed strongly by both papers in this section, they are entitled to have their previous learning and approaches to learning recognised and extended as they make the transition to a school child.

## References

- Brooker, L. (2008). *Supporting transitions in the early years*. Maidenhead: Open University Press.
- Clancy, S., Simpson, L., & Howard, P. (2001). Mutual trust and respect. In S. Dockett & B. Perry (Eds.), *Beginning school together: Sharing strengths* (pp. 56–61). Canberra: Australian Early Childhood Association.
- Department of Education, Employment and Workplace Relations. (2009). *Belonging, being and becoming: The early years learning framework for Australia*. Canberra: Commonwealth of Australia. Retrieved from [http://files.acecqa.gov.au/files/National-Quality-Framework-Resources-Kit/belonging\\_being\\_and\\_becoming\\_the\\_early\\_years\\_learning\\_framework\\_for\\_australia.pdf](http://files.acecqa.gov.au/files/National-Quality-Framework-Resources-Kit/belonging_being_and_becoming_the_early_years_learning_framework_for_australia.pdf).
- Dockett, S., & Perry, B. (2007). *Transitions to school: Perceptions, experiences and expectations*. Sydney: University of New South Wales Press.
- Dockett, S., Perry, B., & Whitton, D. (2006). Picture story books and starting school. *Early Child Development and Care*, 176(8), 835–848.
- Educational Transitions and Change (ETC) Research Group. (2011). *Transition to school: Position statement*. Albury-Wodonga: Research Institute for Professional Practice, Learning and

- Education, Charles Sturt University. Retrieved from: [www.csu.edu.au/research/ripple/research-groups/etc/](http://www.csu.edu.au/research/ripple/research-groups/etc/).
- Lara-Cinisomo, S., Fuligni, A. S., Daugherty, L., Howes, C., & Karoly, L. (2009). A qualitative study of early childhood educators' beliefs about key preschool classroom experiences. *Early Childhood Research & Practice, 11*(1). Retrieved from <http://ecrp.uiuc.edu/v11n1/lara.html>.
- Martin, A. (2009). Age appropriateness and motivation, engagement, and performance in high school: Effects of age-within-cohort, grade retention, and delayed school entry. *Journal of Educational Psychology, 101*, 101–114.
- Ministry of Education, Singapore (n.d.) *Our mission*. Retrieved from <http://www.moe.gov.sg/about/#our-vision>
- Pianta, R. C., & Cox, M. J. (1999). *The transition to kindergarten*. Baltimore: Paul H. Brookes.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford: New York.
- Stipek, D. J., & Byler, P. (1997). Early childhood education teachers: Do they practice what they preach? *Early Childhood Research Quarterly, 12*(3), 305–325. doi:10.1016/S0885-2006(97)90005-3.
- Turunen, T. A. (2012). Memories about starting school. What is remembered after decades? *Scandinavian Journal of Educational Research, 56*(1), 69–84. doi:10.1080/00313831.2011.567397.
- Turunen, T. A., & Dockett, S. (2013). Family members' memories about starting school. Intergenerational aspects. *Australasian Journal of Early Childhood, 38*(2), 103–110.
- United Nations. (1989). *Convention on the rights of the child*. New York: Author. Retrieved from <http://www.unicef.org/crc>.



# **Part III**

## **Competencies**

# Chapter 5

## A Reading Profile of Singapore Primary 1 Students and Implications for Reading Pedagogy

Chitra Shegar and Christopher S. Ward

### Introduction

The purpose of this chapter is to develop a reading profile of Singapore Primary 1 (P1) students in one school and to consider how information about their decoding and comprehension abilities may inform reading instruction in the lower primary levels. The relationship between reading proficiency and future academic success has long been established in the literature (Moats 1999; O'Connor and Vadasy 2011; Snow and Van Hemel 2008). For example, Taylor and colleagues contend that reading provides a foundation for academic achievement and is the most basic skill for success in school (Taylor et al. 1992). Evidence has shown that low reading achievement in the early years, if left unaddressed, leads to prolonged reading difficulties (Phillips et al. 2002). It hampers children's future development (Baydar et al. 1993) both in school and in life as they lack the advanced literacy abilities needed to access both print and nonprint information essential to 21st century competencies (Kirsch 2002). Although research also shows that language proficiency and the reading success of children in later school years are largely influenced by language experiences and literacy exposure in the early childhood years (Dickinson and Porche 2011), there is also evidence to suggest it is possible to catch up by about Grade 3 after a reading lag in Grade 1 (Spira et al. 2005). For example, reading difficulties might be prevented if intensive instruction in phonics, word recognition, fluency, reading and comprehension is provided (O'Connor et al. 2005; Wanzek and Vaughn 2008). Therefore, it is crucial that schools identify the reading difficulties of students at the onset of primary school not only for placement

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(e.g., possible placement in classes with students of similar abilities) but also to inform guided instruction.

In this chapter, we examine the reading skills in English of students entering a primary school in Singapore using an available reading kit. The intention is to establish how close the reading age of such students is to their chronological age and to detail their areas of strengths and weaknesses in terms of two primary components of reading – decoding and comprehension. While the entry cohort of a single school cannot be said to fully represent all students in Singapore schools, the results of this study may provide some insight into how an early reading profile can inform their reading process.

## Review of Literature

### *The Fundamentals of Early Reading Instruction*

According to Scanlon et al. (2010), reading is a “complex process that requires analysis, coordination and interpretation of a variety of sources of information” (p. 9–10). For a reader to be able to comprehend a text, the reader needs to decode the words, understand the meaning of the words, assemble the words into meaningful phrases and clauses and develop an overview of what the text is about.

In broad strokes, it can be said that reading development thus involves two primary components: decoding text and comprehension. Decoding an English text requires knowledge of letters and sounds, an understanding of the alphabetic principle and phonological awareness. According to Linan-Thompson and Vaughn (2007), phonological awareness should be explicitly taught and regular progress monitoring tests should be conducted for effective instruction.

Comprehension is the other fundamental component of reading. Reading without comprehending is a futile exercise as reading is the process of constructing meaning from the written text. Comprehension is a constructive and interactive process (Rumelhart 1977) involving the reader, text and context (Irwin 1991). An interaction of these three factors is necessary for comprehension to occur, as, for example, in interactive read-alouds. Comprehension also requires vocabulary knowledge, fluency in reading, cognitive strategies to make sense of the text that is being read and the ability to adopt repair strategies should comprehension fail.

For early reading instruction to be effective, it is important that the various aspects of decoding and comprehension be included in the reading curriculum. In addition, regular assessment of student development is necessary as it provides teachers with information about students’ progress and whether their instructional strategies are effective, allowing teachers to more effectively plan subsequent lessons and learning objectives (Strickland 2010).

## *Stages in Reading*

Complex skills in reading are acquired gradually in stages. According to Chall (1983, p. 85–87), children go through five stages of reading development plus a pre-reading stage. Of these, only the Pre-reading Stage and Stages 1 and 2 are directly relevant to the students discussed in this chapter. Briefly, Chall posits that children at the first Pre-reading stage (Stage 0) (0.6–6 years) begin to acquire essential reading skills such as knowledge of letters, sounds and words. In the Initial Reading stage (Stage 1) (6–7 years), children learn to associate letters with letter sounds and begin to realise that these groups of sounds and letters make up the whole word. They are also able to read a simple text comprising high-frequency words. In Stage 2 (7–8 years), children work on consolidating the skills they learnt during the previous two stages. They start to actively practise their decoding and word recognition skills, progressively gaining fluency and the ability to read selections independently. While these stages of reading development are important, we also note that the ages are approximations; some children accomplish these stages at earlier or later ages. In addition, it is useful to note that Chall's stages in reading denote not only decoding but also text comprehension.

## *Consequences of Not Reading at Grade Level*

Cunningham and Stanovich (1997), who carried out a longitudinal study with 56 1st graders to determine the relationship between early reading acquisition and its impact on later reading ability after 10 years, found that 1st grade reading ability is a predictor of 11th grade reading comprehension ability. However, the study also stated that children who lagged behind in reading in Grade 1 but caught up by Grade 3 or 5 had a good chance of attaining higher reading levels in the future.

In the same vein, Spira et al. (2005) tracked the reading achievement of 146 low-income students whose reading scores were below the 30th percentile from 1st grade through 4th grade. They found that the reading scores in one grade were predictive of reading scores in the following grade, with the reading scores in the 2nd grade being the strongest predictor of improvers (students who were above the 30th percentile in the 4th grade exit) and non-improvers (students who scored below the 30th percentile in the 4th grade exit). Like Cunningham and Stanovich cited above, Spira et al. concluded that, if children are unable to read at grade level by 3rd grade, the trend is unlikely to change later on. However, students who have strong oral skills and behaviour control are able to improve by the 4th grade.

A study carried out by Duncan et al. (2007) based on six large-scale longitudinal data sets of US children further confirmed the striking consequences of delayed reading ability. They investigated the relationship between school readiness on entry and reading and maths achievement in later years. The results of the study indicated early reading skills were the second strongest predictor of later academic performance after maths skills.

These studies thus provide unequivocal evidence that proper and timely remedial instruction is essential to those not reading at grade levels in the initial school years.

### ***Reading Instruction in Singapore***

All students in Singapore, regardless of their home language, are required to take English as a first language in school, similar to what is known as language arts education in schools in the United States and Canada (see Silver and Bokhorst-Heng, this volume, for a discussion of the quadrilingual education policy). One of the main goals of the Ministry of Education's (MOE) current English Language Syllabus, from Primary 1 to Secondary 4 (ages 6–16), is to prepare the learner to “listen, read and view critically and with accuracy, understanding and appreciation a wide range of literary and informational/functional texts from print and non-print sources” (2008, p. 10). Fundamentally, the stated goal in the syllabus is to develop proficient critical readers. Such readers are not only able to actively decode written text but also comprehend and reflect on information presented in the text. The process for achieving the objectives of the syllabus begins in lower primary levels, where students are expected to learn how to decode effectively and progress towards comprehending age-appropriate texts (MOE 2008, p. 29–41).

From the results of a number of internationally recognised tests, it appears that Singapore students are doing well in reading. For example, the Progress in International Reading and Literacy Study (PIRLS) 2006, an international test of literacy for 4th grade students, ranked Singapore's Primary 4 students (aged 9) 4th out of the 45 participating education systems (MOE 2007). Moreover, Singapore was 2nd among the 12 education systems that chose to test through the medium of English and top among the five who chose to test solely in English.

However, while the results of such tests indicate overall national success, there are still individual students who have not mastered proficiency in their reading skills. In a study involving 23 Primary 3 (P3) reading lessons in 8 Singapore schools, Wong (2007) found that while the majority of students were able to decode and comprehend text at a literal level, there were some who still had difficulty decoding. For example, one teacher in Wong's (2007) study suggested that 12 of the students in her class were reading at P1 level, two years below grade level, while another teacher reported that one student had still not mastered the alphabet. The reading instruction in these schools left much to be desired as the objective of reading lessons was decoding and literal comprehension. In addition, students and teachers were not involved in sustained conversations that promoted the development of thinking strategies.

One way students achieve better reading skills is through improved pedagogy. Both Wong (2007) and Vaish and Shegar (2009) indicate that reading lessons in Singapore are mainly made up of Initiation-Response-Evaluation (IRE) exchanges that require surface comprehension and interpretation of text. These lessons provide students with little opportunity for extended interaction with the teacher or other students or for the teaching of deeper levels of comprehension that use their back-

ground knowledge and ability to infer meaning from the text (Britton and Graesser 1996). Sripathy (2007), who observed reading lessons in a lower primary class in Singapore, confirmed that the lessons were teacher centred and product oriented. They were comprised of mainly closed questions in which students provided mono-syllabic answers and did not engage in spontaneous or sustained talk which is necessary for literacy development. According to Sripathy, this lesson structure was due to the adoption of a scripted approach to a shared book method that was culturally foreign to Singapore teachers. To rectify this, she suggested that teachers needed to understand the children's cultural background and link this to their own pedagogies. (See also Curdt-Christiansen and Silver 2012).

Since the above-mentioned studies show that the mastery of reading skills by some students at P3 might be below target levels and that reading instruction in Singapore schools can be improved, this chapter aims to focus on this issue by describing the reading profile of Singapore students entering P1 in one Singapore school, based on a diagnostic reading tool. The assessment helps determine the level of decoding, comprehension and retelling skills the students bring with them. With this information, it is possible to identify students at risk of reading problems in the early primary grades (Rathvon 2004), ascertain the students' reading strengths and weaknesses (Erford 2004) and provide direction for tailoring reading programmes to the skill levels of the students (Hamilton and Glascoe 2006).

## **The Study**

### ***Objectives***

The study reported in this chapter aims to answer the following research questions:

1. What are the decoding and comprehension abilities of a group of Singapore primary school male/female students aged 6–7 in a local government-funded school?
2. What are the implications of the findings for reading instruction for Singapore learners in lower primary levels?

### ***Selection of School***

To investigate the above research questions, Alpha Primary School (a pseudonym) was selected as an appropriate site for the project for the following reasons. Alpha Primary School had a spontaneous 'buy in' to the project by the teachers and school management who believed strongly that effective reading instruction would benefit the students. The school had already decided that its focus for that year (2006) would be reading instruction at the lower primary level. Alpha Primary School was also representative of a majority of the local schools in Singapore as it had a

multiracial and predominantly middle or low socioeconomic student population. The school population comprised Chinese, Malay and Indian Singaporeans, as well as some foreign students from China.

Information gathered from the school's student profile database showed that about 70% of the P1 students in the school in that year came from homes where English was not the dominant language. As a result, they had limited prior exposure to a standard variety of English before starting school. With English as the medium of instruction for most academic subjects, this group of students thus might be disadvantaged compared to those whose dominant home language was English.

As part of their focus on developing students' reading skills, the school had designed and implemented a reading screening test as part of their orientation procedures for incoming P1 students. The test comprised a 100-word text taken from the P1 English Language textbook. The test was administered to all the students, and, based solely on their decoding rates, students were grouped into three categories, namely, Lily, Marigold and Holly groups. (The names have been changed to maintain confidentiality of participants.) The Lily group had a decoding rate of less than 60%, the decoding rate of the Marigold group was 61–80% and the Holly group's decoding rate was 81–100%. According to the school-designed test, 44.1% of the cohort of students was classified as Lily readers, Marigold readers formed 36.6% and Holly readers formed 22.3% of the school's P1 population.

### ***Participants***

For the purposes of the study, to get a more comprehensive overview of the reading and comprehension abilities of incoming P1 students, nine students were selected from each class from the 2006 cohort. The 2006 cohort comprised nine P1 classes, with a total of about 270 students. Thus, a total of 81 students (approximately 30% of the cohort) were selected, out of which 35 (43%) were in the Lily group (one student later dropped out), 27 (33%) in the Marigold group and 18 (22%) in the Holly group. A greater proportion of Lily students was selected for reading profiling because these students were perceived to require more help for reading at age-appropriate levels and we wanted to determine specific areas of reading which needed to be addressed. Male and female students were almost equal in proportion (approximately 53.1% and 46.9%, respectively). These groups of students were then matched to the appropriate reading level texts in the PM Benchmark Kit 2 (Smith and Nalley 2002) and tested for their reading and comprehension abilities in the first month of school.

### ***Materials and Procedure***

The PM Benchmark Kit 2, which assesses both decoding and comprehension, was selected to measure the reading abilities of the students. Formulated on the basis of the Fry Readability Formula (Fry 1977), the Kit comprises 30 levelled texts which

range progressively from emergent levels to age 12 (Smith and Nelley 2002, p. 5). The Kit fitted the needs of the study in terms of areas tested but was selected for two additional reasons. First, the content of the reading passages in the Kit was accessible to the students so they would not be disadvantaged by topic unfamiliarity. Second, the Kit had a wide local acceptance as it was already being used by at least 24 schools in Singapore at the time of the study.

### ***Testing Procedure***

For this study, after discussion with the relevant teachers, the Lily group was given a Level 1 text (the least demanding text in the Kit) and Marigold students were given a Level 13 text. According to the Kit guide, Levels 1–14 cover reading ages from 5 to 6.5 years with Level 1 the easiest and Level 14 the most difficult. Each level is not allocated a specific reading age as, according to the Kit, the gradations are too fine. Holly students were given a Level 17 text at a reading age of 7 as given by the developers of the Kit.

The test was administered according to the instructions in the Kit by two trained Research Assistants from the National Institute of Education. The texts were not seen by the students before the test. Each student was tested individually. Students were given 3 minutes to read the text silently before they were instructed to read the text out loud. If there were words that the students couldn't read, they were instructed to read the word as they thought it should be pronounced or skip the word. Once the students had read the text aloud, they were asked to retell the text content at their own pace, referring to the text if needed. If students were unable to supply the content, they could respond, 'I don't know.'

The testers then proceeded to ask the comprehension questions set for the text. Every question was to be asked and a response was required by the student. Silent students were prompted for an answer and the testers moved on to the next question only when a response had been given. Students were allowed to give 'I don't know' or similar responses for questions that they had difficulty answering.

All test sessions were audio-recorded for transcription and coding.

### ***Scoring Procedure***

#### **Decoding**

The Benchmark Kit measures the decoding abilities of students by taking running records and analysing them generally using the framework of Clay (1993a). (For a full description, see also Smith and Nelley 2002.) To obtain a decoding score, the text read aloud by the student was scored in the following manner:

A tick was placed above each word that was correctly read. Words that were not read at all or skipped earned a dash and were considered errors. For example:



Child:	✓	✓	✓	–
Text:	The	little	engine	sighed

Words that were read incorrectly were counted as errors and the incorrect replacement was indicated above the actual word:

Child:	✓	✓	✓	shouted
Text:	The	little	engine	sighed

Insertions were taken as errors so that a student could have more errors than there were words in a line:

Score:	✓	✗	✗	✗	✗	✗
Child:	<i>The</i>	<i>train</i>	<i>went</i>	<i>toot,</i>	<i>toot,</i>	<i>toot</i>
Text:	The	little	engine	sighed		

(Five errors)

If students made an error in decoding a word and then self-corrected, the decoding of the word was counted as accurate.

The decoding score was calculated by dividing the number of words read correctly by the number of words in the texts.

To gain greater insight into the issues surrounding decoding among the students, a more in-depth analysis of errors was undertaken. Because of the detailed nature of the analysis as well as time constraints, the analysis was only carried out on a subset of 15 randomly selected students from each group, for a total of 45 students. In the in-depth analysis, errors were categorised as either omissions or wrong word insertions. Following this, errors were categorised as content word errors or function word errors. In addition, simple notes were kept to track if students were self-correcting their errors.

## ***Comprehension***

To assess students' text comprehension, two literal comprehension questions, two inferential comprehension questions and one application comprehension question were asked for each text. The literal comprehension question required students to provide answers based on information explicitly given in the text. Inferential questions required answers that were not present in the text but could be inferred using text content. The application question required students to formulate answers based on experience beyond the text.

Zero to two marks were allocated for incorrect, partially logical/correct and logical/correct answers. The highest possible total if all answers were correct was 10. Table 5.1 describes the scoring criteria.

**Table 5.1** Comprehension scoring criteria

Question	Marks	Description
Factual	2	Complete answer
	1	Partial answer
	0	Wrong answer
Inferential	2	Logical inference
	1	Partially logical inference but a little unlikely
	0	Poor inference
Application	2	Logical extension from/to real life
	1	Partially logical extension from/to real life
	0	No extension or illogical extension from/to real life

**Table 5.2** Retelling scoring criteria

Band	Marks	Description
Excellent	9–10	Accurate indication of the thematic focus of the passage and detailed description of the passage
Good	7–8	Accurate indication of the thematic focus of the passage and fairly detailed description of the passage
Fairly Good	5–6	Fairly accurate indication of the thematic focus of the passage and fair description of the passage
Fair	3–4	Fairly accurate indication of the thematic focus of the passage but minimal description or no description of the passage
Poor	1–2	No description or description of the passage in a few words and no indication of thematic focus of the passage

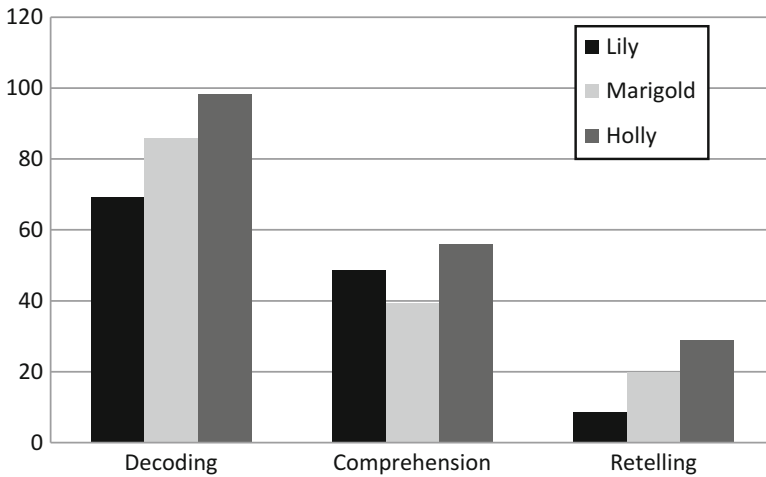
## ***Retelling***

Apart from comprehension, students were also tested on their ability to retell the text selection to assess the extent to which they were able to recount the content of the text as a whole. The students' recounting of the text was awarded 0–10 marks for a poor to excellent description and adherence to the thematic focus of the text. Table 5.2 describes the scoring criteria.

## **Findings**

### ***Descriptive Analysis of Decoding, Comprehension and Retelling Scores***

Figure 5.1 shows the mean score distribution of the three groups for all three areas: decoding, comprehension and retelling. Since the decoding scores yielded a percentage (number of words read correctly/total number of words in the text), the



**Fig. 5.1** Comparison of means for the three groups

**Table 5.3** Descriptive statistics on decoding, comprehension and retelling

	Lily ( <i>n</i> =35)		Marigold ( <i>n</i> =27)		Holly ( <i>n</i> =18)	
	Mean	SD	Mean	SD	Mean	SD
Decoding	69.33	26.51	86.04	9.90	98.15	21.71
Comprehension	48.57	34.23	39.26	22.52	56.11	24.77
Retelling	8.57	12.16	20.00	21.48	28.89	26.76

score for each student could range from 0 to 100. For ease of comparison, the coding for comprehension and retelling has been rescaled from 0 to 100.

Generally the Lily group scored the lowest despite the fact that they were reading a text which was considered to be appropriately levelled for them and ‘easier’ in comparison with the texts read by the other students. The next lowest was the Marigold group with the Holly group the highest (with the most difficult text). The exception was on comprehension where the Marigold group on average scored lower than the other two groups. The average scores of each group thus generally mirrored the results from the school-designed reading screening test.

Table 5.3 shows the means and standard deviations of decoding, comprehension and retelling for the three groups: Lily, Marigold and Holly. The table shows that the standard deviation for decoding was the highest (26.51) for the Lily group, meaning there was considerable variation in this group. In contrast, the Marigold group had the lowest standard deviation (9.90), indicating a clustering in the decoding ability of these students around their mean score. Like the Lily group, the Holly group had a high standard deviation of 21.17 indicating that there was considerable variation in the performance of the members within this group as well.

Similar to decoding, the standard deviation for comprehension was lowest for Marigold (22.52), followed by Holly (24.77) and Lily (34.23). The wider spread of

**Table 5.4** Percentage of types of decoding errors

Group	Total	Error types		Word type involved	
		Omission	Wrong word	Function words	Lexical words
Lily	39.7	26.5	13.2	11	28.7
Marigold	12	5.4	6.6	1.5	10.5
Holly	2	0.3	1.7	0.5	1.5

the Lily group indicates the performance on comprehension of students in that group varied the most among the three groups. It is also interesting to note that the spread for comprehension scores for the three groups was much wider in comparison to those for decoding. These results show that the performance in comprehension by the students was more varied in comparison to decoding.

The standard deviation of the scores for retelling was lowest for Lily (12.16) showing not only that students of Lily scored lowest in retelling, but that the spread was also relatively narrow, indicating that these students were all equally weak in retelling. The retelling standard deviation for Holly (26.76) was the highest, indicating a fairly large variation in performance among group members. The Marigold group's standard deviation was close behind that of the Holly group. However, on average, all three groups scored poorly in retelling compared to their performances in the other two areas.

Below are detailed analyses of the decoding and comprehension scores. However, the poor marks for retelling meant that there was little data that could be used for a detailed analysis and so these data are not discussed further.

### *Detailed Analysis of Decoding Scores*

Table 5.4 shows the error percentage made by each group in decoding as well as the nature of those errors, that is, whether the errors were word omissions or wrong word insertions. Not surprisingly, given the relatively lower mean on the decoding test, the Lily group had the greatest number of decoding errors. In addition the Lily group had the highest number of omissions (26.5%) followed by the Marigold group (5.4%). The Holly group had the lowest number of omissions (0.3%). The last two columns in Table 5.4 classify the decoding errors as related to either function or lexical words. As seen there, all three groups had more difficulty in decoding lexical words as compared with function words.

### *Detailed Analysis of Comprehension Scores*

As explained previously, there were three types of questions in the comprehension test. According to our scoring criteria in the comprehension test, the lowest possible score for each type of question (factual, inferential or application) was 0 and the

**Table 5.5** Descriptive statistics of factual, inferential and application questions

	Factual		Inferential		Application	
	Mean	SD	Mean	SD	Mean	SD
Lily ( <i>n</i> = 35)	40.00	41.66	46.43	40.29	70.00	36.78
Marigold ( <i>n</i> = 27)	64.81	36.20	16.67	21.93	33.33	43.85
Holly ( <i>n</i> = 18)	73.61	30.28	56.94	40.04	19.44	38.88

highest possible score was 2, giving a possible total of 10 for the five questions. In order to facilitate comparison, all the scores have been rescaled to 0–100. As mentioned above, there were two factual questions and two inferential questions and only one application question. Despite the small number of items for each question type, the performance of each group by question type was analysed as suggestive of possible comprehension issues (Table 5.5). Both Marigold and Holly groups had higher means on the factual questions than on the inferential and application questions, while the Lily group performed better on the application questions.

## Discussion and Recommendations

### *Decoding*

From the decoding accuracy results, it is evident that Lily readers were approximately 1–2 years below their expected reading age. Similarly, Marigold readers seemed to be having difficulty with decoding text at the expected reading age as their decoding ability was well below the expected 95% accuracy. In contrast, Holly readers performed very well and their decoding accuracy rates show that they were reading at age level and ready to move on to a higher reading level. Decoding results for Lily and Marigold readers do not bode well for the academic future of these children since research findings (e.g., Spira et al. 2005; Duncan et al. 2007) strongly indicate that lagging behind in the early stages leads to prolonged reading difficulties. To close the decoding gap, it is recommended that intensive instruction in phonological awareness and the alphabetic principle be provided. While some programmes have been introduced to improve the general approach to reading in Singapore's primary schools, for the instruction to be effective, it needs to be explicit and carried out in small groups. In this way, student development can be carefully monitored and regularly assessed (Strickland 2010, p. 7), the effectiveness of instruction can be gauged, and further instruction can be provided to address areas of weakness. According to Linan-Thompson and Vaughn (2007), explicit instruction by its nature is task specific and needs clear articulation of goals. While there was less variation within the three groups with respect to their decoding skills (vis-à-vis comprehension and retelling), nonetheless, small group instruction would enable the teacher to target specific skills-focused lessons for specific students. The

teacher also needs to model how a task is to be completed and assess students' ability to complete the task independently (Tikunoff 1983). Intensive instruction in phonemic and phonological awareness will involve knowledge of concepts such as onset, rime, syllables and skills-based activities such as the segmenting, blending and manipulation of sounds and words (Linan-Thompson and Vaughn 2007).

In examining the errors, it was noted that many of the decoding errors for students in the Lily group were omitted words. This suggests that they did not have strategies (graphophonic, semantic or syntactic) that they could utilise to assist them in the process of decoding. This calls for students to be taught phonic strategies such as segmentation and blending and concepts such as onsets and rimes as well as semantic and syntactic strategies so that they are able to decode words not encountered before. It also indicates tutoring in a framework such as reading recovery (Clay 1993b) in which students weak in reading are given intensive individual lessons for about 30 minutes a day by a trained teacher.

## *Comprehension*

All three groups had low comprehension scores. The low scores for the comprehension questions as compared to the decoding scores received by the students imply that they are able to read but not necessarily understand the text.

This struggle with decoding and comprehension is a matter for concern. To enhance students' comprehension abilities, dialogic reading (Whitehurst et al. 1994), text talk (Beck and McKeown 2001) or interactive read-alouds which require students to predict, think analytically and answer questions should be encouraged (McGee and Schickedanz 2010, p. 10). Research has shown that these methods enhance vocabulary knowledge (Hargrave and Senechal 2000), comprehension strategies and story schema (Van den Broek 2001). Furthermore, guided reading in the context of small groups would be an effective way to differentiate instruction to reach the full range of students' abilities (Fountas and Pinell 1996), which, as we noted in Table 5.3, was especially characteristic of the Lily group.

For effective comprehension, vocabulary knowledge is crucial (Scarborough 2001). The main principles of good vocabulary instruction are that children learn words best when diverse vocabulary is infused into their daily interaction, when the words are of interest to them, when the context for vocabulary learning is interactive and responsive rather than passive, when words are learnt in meaningful contexts and when there is clear information about word meaning (Harris et al. 2011, p. 53–57).

Finally, we suggest that fluency in reading facilitates comprehension by allowing for automatic recognition and reading with expression or prosody (Kuhn 2010, p. 39–40). Fluency in reading can be enhanced through repeated reading (Kuhn 2010, p. 40) and wide reading (Linan-Thompson and Vaughn 2007, p. 60).

## ***Retelling***

The purpose of the retelling was to determine the depth of global text understanding and the ability of students to interact with the text and to make inferences. The results seemed to indicate that the majority of the students had comprehension difficulties, even at the most basic text level. Most of the students were unable to provide a clear statement that described the overall content of the text even though they were allowed to refer to the text. For instance, the Level 1 text was about different toys on the table and the Level 13 text was about the best runner in a race. Though the content of the texts was evident from the title, most students were unable to state what the text was about let alone recall the salient points in the text. A possible reason for this is the priority placed on decoding in preparation for primary school which results in students focusing all their attention on decoding at the expense of comprehension. However, there could be other factors contributing to poor performance in this task such as the students' unfamiliarity with the task of retelling even though the current consensus is to place equal importance on both skills, thus balancing both decoding and comprehension (Paris 2005). The retelling of text can be improved through dramatisation and story retelling tasks (McGee and Schickedanz 2010), both of which require a global understanding of textual content.

## ***Limitations of the Study***

Though a description and analysis of the reading abilities of a group of Singapore primary school students has been given with the aim of drawing pedagogical implications, some caveats are needed:

- Classroom schedule constraints as well as financial resources dictated that only a small number of students could be sampled for this study. 81 students were selected from the 270 attending P1 in the target school. This limits the representativeness of the sample in terms of the whole Singapore P1 population.
- While the PM Benchmark Kit 2 has been used in a number of Singapore schools, it has not been normed with a Singapore student population; thus, we cannot be sure that the accuracy levels stated in the kit can be fully applied to the Singapore student population. In addition, it is possible that country-specific factors might have influenced the final results. Hence, it is only prudent that we exercise some caution when using the kit and interpreting the results.
- In order to gain more comprehensive data, additional reading assessments such as a vocabulary test could be used in conjunction with the PM Benchmark Kit 2 allowing for a more comprehensive profile of the students.

## ***Pedagogical Implications***

Despite the limitations outlined above, the results of this study allow several pedagogical implications to be drawn, in addition to some of the general recommendations made earlier. The findings of the study suggest that a fairly large cohort of students entering P1 is not decoding and comprehending texts at age-appropriate levels. This calls for immediate action at the onset of primary education so that the students acquire age-appropriate reading skills as they progress through the grades.

At the onset of P1, it is imperative that educators conduct reading assessments on students, identify their strengths and weaknesses and apply appropriate early interventions to minimise any negative impact on future learning and behaviour (Gaskins 1998). If the assessment results show that the child has little ability to decode, then intensive instruction should be provided so that the student gains mastery of letter names and sounds, the alphabetic principle, common sight words and age-appropriate phonological awareness. More emphasis could be given to the learning of the closed set of function words which constitute a sizable portion of the words in student readers. To enhance the comprehension abilities of these students, it is recommended that the students be exposed to frequent interactive read-alouds, so that even if they are unable to decode independently, their ability to comprehend and to acquire vocabulary is not hampered.

Schools should also be prepared to provide extended support for struggling readers. Gaskins (1998) reports that students with delayed reading skills might require prolonged support for a minimum of two years. Although in Singapore primary schools delayed readers are enrolled in a Learning Support Programme (LSP) that provides intensive reading instruction (Vaish, this volume), it is important that support is provided not only for three years but continued further until the reading lag is addressed. In addition, apart from remedial instruction provided in the pull-out LSP, it is recommended that reading difficulties be addressed in classroom curriculum time through differentiated instruction as delayed readers require many opportunities to practise and obtain feedback to master reading skills. This would be particularly important for readers such as those in the Lily group in this study where the range of abilities was very wide.

Since the results show that generally the comprehension abilities of students in all three groups were lagging behind their decoding abilities, we suggest that more emphasis has to be given to comprehension. Supporting the development of comprehension skills through recommended methods such as interactive read-alouds, text talk and dialogic reading is likely not only to increase comprehension but also aid the retelling of stories, as both require a focus on reading as a conscious attempt at meaning making.

In conclusion, it is important to note that early intervention programmes might be less effective in preventing future difficulties if they are not supported by teacher development. Moats (1999) states that teachers need to constantly update themselves on the latest research in reading development and utilise the available information to guide their reading programmes and practices. Consequently, institutions



responsible for teacher professional development need to ensure that teachers are provided with both knowledge-focused and practice-focused (Neuman and Cunningham 2009) professional development. In addition, there needs to be sufficient supervision and monitoring of staff onsite to ensure that they acquire the necessary skills to undertake effective remediation for the targeted students (Zaslow et al. 2011).

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## References

- Baydar, N., Brooks-Gunn, J., & Furstenberg, F. F. (1993). Early warning signs of functional illiteracy: Predictors in childhood and adolescence. *Child Development*, *64*(3), 815–829. doi:10.2307/1131220.
- Beck, I. L., & McKeown, M. G. (2001). Text talk: Capturing the benefits of read aloud experiences for young children. *The Reading Teacher*, *55*(1), 10–20.
- Britton, B. K., & Graesser, A. C. (Eds.). (1996). *Models of understanding text*. Mahwah: Lawrence Erlbaum Associates.
- Chall, J. (1983). *Stages of reading development*. New York: McGraw-Hill Book Company.
- Clay, M. M. (1993a). *An observation survey of early literacy achievement*. Auckland: Heinemann Education.
- Clay, M. M. (1993b). *Reading recovery: A guide for teachers in training*. Auckland: Heinemann Education.
- Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental Psychology*, *33*(6), 934–945. doi:10.1037//0012-1649.33.6.934.
- Curd-Christian, X.-L., & Silver, R. E. (2012). Educational reforms, cultural clashes and classroom practices. *Cambridge Journal of Education*, *42*(2), 141–161. doi:10.1080/0305764X.2012.676631.
- Dickinson, D. K., & Porche, M. V. (2011). Relationship between language experiences in pre-school classrooms and children’s kindergarten and fourth-grade language and reading abilities. *Child Development*, *82*(3), 870–886.
- Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., Pagani, L. S., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., Duckworth, K., & Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, *43*(6), 1428–1446. doi:10.1037/0012-1649.43.6.1428.
- Erford, B. T. (2004). The reading essential skill screener – Preschool version (RESS-P): Studies of reliability. *Assessment for Effective Intervention*, *29*(3), 19–34. doi:10.1177/073724770402900302.
- Fountas, I., & Pinell, G. S. (1996). *Guided reading: Good first teaching for all children*. Portsmouth: Heinemann Educational.
- Fry, E. (1977). Fry’s readability graph: Clarification, validity, and extension to level 17. *Journal of Reading*, *21*(3), 242–252.
- Gaskins, I. W. (1998). There’s more to teaching at-risk and delayed readers than good reading instruction. *The Reading Teacher*, *51*(7), 534–547.

- Hamilton, S. S., & Glascoe, F. P. (2006). Evaluation of children with reading difficulties. *American Family Physician*, 74(12), 2079–2084.
- Hargrave, A. C., & Senechal, M. (2000). A book reading intervention with preschool children who have limited vocabularies: The benefits of regular reading and dialogic reading. *Early Childhood Research Quarterly*, 15(1), 75–90. doi:10.1016/S0885-2006(99)00038-1.
- Harris, J., Golinkoff, R. M., & Hirsh-Pasek, K. (2011). Lessons from the crib for the classroom: How children really learn vocabulary. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 3, pp. 49–65). New York: Guilford Press.
- Irwin, J. W. (1991). *Teaching reading comprehension processes* (2nd ed.). Boston: Allyn & Bacon.
- Kirsch, I. S. (2002). *Reading for change: Performance and engagement across countries. Results from PISA 2000*. Paris: OECD Publishing.
- Kuhn, M. (2010). Helping students become accurate, expressive readers: Fluency instruction for small groups. In D. S. Strickland (Ed.), *Essential readings on early literacy* (pp. 39–46). Newark: International Reading Association. doi:10.1598/RT.58.4.3.
- Linan-Thompson, S., & Vaughn, S. (2007). *Research-based methods of reading instruction for English-language learners, Grades K-4*. Alexandria: Association for Supervision and Curriculum Development.
- McGee, L. M., & Schickedanz, J. A. (2010). Repeated interactive read-alouds in preschool and kindergartens. In D. S. Strickland (Ed.), *Essential readings on early literacy* (pp. 10–20). Newark: International Reading Association. doi:10.1598/RT.60.8.4.
- Ministry of Education. (2007). *Singapore's performance in the progress in international reading literacy study (PIRLS) 2006*. Retrieved from <http://www.moe.gov.sg/media/press/2007/pr20071129.htm>
- Ministry of Education. (2008). *English language syllabus 2010 primary & secondary (Express/Normal [Academic])*. Retrieved from <http://www.moe.gov.sg/education/syllabuses/english-language-and-literature/files/english-primary-secondary-express-normal-academic.pdf>
- Moats, L. C. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do*. Washington, DC: American Federation of Teachers.
- Neuman, S. B., & Cunningham, L. (2009). The impact of professional development and coaching on early language and literacy instructional practices. *American Educational Research Journal*, 46(2), 532–566. doi:10.3102/0002831208328088.
- O'Connor, R. E., & Vadasy, P. F. (Eds.). (2011). *Handbook of reading interventions*. New York: The Guilford Press.
- O'Connor, R. E., Harty, K. R., & Fulmer, D. (2005). Tiers of intervention in kindergarten through third grade. *Journal of Learning Disabilities*, 38(6), 532–538. doi:10.1177/00222194050380060901.
- Paris, S. G. (2005). Reinterpreting the development of reading skills. *Reading Research Quarterly*, 40(2), 184–202. doi:10.1598/RRQ.40.2.3.
- Phillips, L. M., Norris, S. P., Osmond, W. C., & Maynard, A. M. (2002). Relative reading achievement: A longitudinal study of 187 children from first through sixth grades. *Journal of Educational Psychology*, 94(1), 3–13. doi:10.1037//0022-0663.94.1.3.
- Rathvon, N. (2004). *Early reading assessment: A practitioner's handbook*. New York: The Guilford Press.
- Rumelhart, D. E. (1977). Toward an interactive model of reading. In S. Dornic (Ed.), *Attention and performance VI* (pp. 573–603). Hillsdale: Lawrence Erlbaum Associates. doi:10.1598/0710.29.
- Scanlon, M. D., Anderson, K. L., & Sweeney, M. (2010). *Early intervention for reading difficulties: The interactive strategies approach*. New York: The Guilford Press.
- Scarborough, H. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 1). New York: Guilford Press.
- Smith, A., & Nelley, E. (2002). *PM Benchmark Kit 2*. Southbank: Nelson Thomson Learning.
- Snow, C. E., & Van Hemel, S. B. (2008). *Early childhood assessment: Why, what, and how?* Washington, DC: National Academies Press.

- Spira, E. G., Bracken, S. S., & Fischel, J. E. (2005). Predicting improvement after first-grade reading difficulties: The effects of oral language, emergent literacy, and behavior skills. *Developmental Psychology, 41*(1), 225–234. doi:[10.1037/0012-1649.41.1.225](https://doi.org/10.1037/0012-1649.41.1.225).
- Sripathy, M. (2007). Cultural scripts and literacy pedagogy. In V. Vaish, S. Gopinathan, & Y. Liu (Eds.), *Language, capital, culture: Critical studies of language and education in Singapore* (pp. 73–102). Rotterdam: Sense Publishers.
- Strickland, D. S. (2010). *Essential readings on early literacy*. Newark: International Reading Association.
- Taylor, B. M., Short, R. A., Frye, B. J., & Shearer, B. A. (1992). Classroom teachers prevent reading failure among low-achieving first-grade students. *The Reading Teacher, 45*, 592–597.
- Tikunoff, W. J. (1983). *Compatibility of the SBIF features with other research instruction of LEP students*. San Francisco: Far West Laboratory.
- Vaish, V., & Shegar, C. (2009). Asian pedagogy: Scaffolding in a Singaporean English classroom. In R. E. Silver, C. C. M. Goh, & L. Alsagoff (Eds.), *Language learning in new English contexts: Studies of acquisition and development* (pp. 75–90). London: Continuum.
- Van den Broek, P. (2001). *The role of television viewing in the development of reading comprehension*. Washington, DC: US Department of Education.
- Wanzek, J., & Vaughn, S. (2008). Response to varying amounts of time in reading intervention for students with low response to intervention. *Journal of Learning Disabilities, 42*(2), 126–142. doi:[10.1177/0022219407313426](https://doi.org/10.1177/0022219407313426).
- Whitehurst, G. J., Arnold, D. H., Epstein, J. N., Angell, A. L., Smith, M., & Fischel, J. E. (1994). A picture book reading intervention in daycare and home for children from low-income families. *Developmental Psychology, 30*(5), 679–689.
- Wong, R. Y. L. (2007). Reading is usually a passage followed by a set of questions for the kids: Primary 3 reading lessons in Singapore. In V. Vaish, S. Gopinathan, & Y.-B. Liu (Eds.), *Language, capital, culture: Critical studies of language and education in Singapore* (pp. 103–115). Rotterdam: Sense Publishers.
- Zaslow, M., Tout, K., Halle, T., & Starr, R. (2011). Professional development for early childhood educators: Reviewing and revising conceptualizations. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 3, pp. 425–434). New York: Guilford Press.

# Chapter 6

## Morphological Awareness and Reading Development in Bilingual English-Chinese Children in Singapore

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### Introduction

Singapore adopted a quadrilingual education system in the 1970s, and this policy continues to be seen as essential for the country's economic development and cultural continuity (Dixon 2005; Pakir 2008; Silver and Bokhorst-Heng, this volume). Under this policy, all school children study all subjects (except the mother tongues and a moral education class) through the medium of English, and at the same time, they are required to be literate in a second language. This second language refers to the official mother tongue – Mandarin for Chinese, Malay for Malays, and Tamil for Indians. It should be noted that these three languages are designated as mother tongues for children based on their ethnicity and are often not their first language. In this chapter, we refer to Mandarin as 'mother tongue' for English-Chinese bilingual children in order to avoid confusion. We also argue that many Chinese families in recent decades have adopted Mandarin as their home language (Singapore Statistics 2010) partly because of the strong 'top-down' – Speak Mandarin Campaign – intervention and partly because Mandarin is required for school examinations and often is a sine qua non for obtaining a job. However, we also recognize the complex linguistic situation in Singapore where the national census states that either English or one of the four mother tongues is the dominant language in Singaporean homes, but recent research suggests otherwise. Aman et al. (2009) posit that bilingual practice is the norm for home environments: 7.4% of children use English as their dominant language at home, 70.9% of children use both

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English and mother tongue language, and 19.3% use mother tongue and/or other varieties.

Most of the bilingual research in Singapore has focused on the development of English and mother tongue languages in the context of classroom instruction (Goh 2003; Liu and Zhao 2008), curriculum development (Tan 2006; Curdt-Christiansen 2009), and sociolinguistic aspects of these languages (Bokhorst-Heng and Caleon 2009; Vaish 2007). Moreover, in these studies, English and mother tongue languages have been treated separately, and very little research has been conducted to explore the development of biliteracy in Singaporean bilingual children. In this study, we attempt to fill this gap by exploring the biliteracy development of these children and by identifying the underlying linguistic factors that may influence such development in a formal instructional context. Specifically, we examine: (1) two aspects of morphological awareness (derivational and compound) in both languages among Singaporean English-Chinese bilingual children, (2) their effects on the vocabulary and reading comprehension in these two languages, and (3) whether there is evidence of crosslinguistic morphological transfer.

Morphological awareness refers to the ability to reflect on and manipulate morphemes and to employ word formation rules in one's language (Kuo and Anderson 2006). Among the various linguistic factors that have been proposed to play a role in children's literacy development, phonological awareness has received considerable attention (for a review, see Goswami 2006). However, understanding the relationship between phonological forms and semantic information and recognizing more complex words based on their structural properties are also critical in achieving success in reading and literacy development (Carlisle 2010; Kuo and Anderson 2006). Therefore, in recent years, morphological awareness and its relationship to literacy development has received increasing attention. Converging evidence has shown that morphological awareness plays a significant role in learning to read alphabetic languages (Carlisle 1995; Carlisle and Fleming 2003; Deacon and Kirby 2004) as well as nonalphabetic languages, such as Chinese (Chung and Hu 2007; Ku and Anderson 2003; McBride-Chang et al. 2005), among monolingual and bilingual children.

### ***Morphological Awareness in Learning to Read Among Monolingual English Children***

English orthography is often considered as morphophonemic (Carlisle 2003; Chomsky and Halle 1968), which means that the spelling system represents both phonemes and morphemes. As English has an opaque alphabetic orthography, grapheme-phoneme correspondence in English is often indirect or not always transparent. This presents challenges for learners who cannot depend totally on phonological processes to recognize words. It is not surprising that, when the relationship between individual letters and phonemes is unpredictable, morphological

awareness can play an important role in learning to read English by facilitating an understanding of the semantic relationship between words regardless of their phonological distinction (Carlisle 2003).

Research on how children develop morphological awareness has focused mainly on three types of morphology: inflections, derivatives, and compounds (for reviews, see Kuo and Anderson 2006; Koda and Zehler 2008; Carlisle 2010). Inflectional morphology is concerned with the way in which words vary to express grammatical contrasts in sentences. Derivational morphology is focused on the addition of a morpheme to change part of speech or the meaning of a base morpheme. Compound morphology refers to the formation of new words by combining two stem morphemes.

The process of acquiring implicit and explicit morphological knowledge is long and gradual for monolingual English-speaking children (Kuo and Anderson 2006). Evidence emerging from the existing literature indicates that implicit understanding of inflectional and compound morphology begins to develop before formal literacy instruction (Berko 1958; Carlisle 1995; Nagy et al. 2003), whereas knowledge of derivational morphology usually does not begin to emerge until mid-elementary grades (Anglin 1993; Ku and Anderson 2003; Wang et al. 2006). The acquisition of major inflectional rules is generally completed by early elementary grades (Berko 1958; Carlisle 1995), but awareness of compound and derivational morphology continues to develop through the elementary years and even beyond (Nagy et al. 2003).

Correlational research has confirmed that there is a strong relationship between morphological awareness and vocabulary knowledge among monolingual English-speaking children from kindergarten until grade 5 (Carlisle and Fleming 2003; McBride-Chang et al. 2005). Given the close association between vocabulary and reading comprehension (Anderson and Freebody 1981; Hudson 2007), research has confirmed that morphological awareness can facilitate reading comprehension (Carlisle 1995, 2003; Carlisle and Fleming 2003; Deacon and Kirby 2004; Nagy et al. 2003). However, some studies have shown that morphological awareness contributes uniquely to reading comprehension, beyond the mediating effect of vocabulary (Ku and Anderson 2003; Nagy et al. 2003). In a study involving students from grade 4 to 9, Nagy et al. (2003) found that morphological awareness predicted reading comprehension over and above vocabulary and other reading-related factors at all grade levels. In a comparative study, Ku and Anderson (2003) assessed morphological awareness in monolingual Chinese-speaking and monolingual English-speaking children in second, fourth, and sixth grades using a set of comparable tests of morphological awareness. They found that children's morphological awareness was more statistically significantly related to reading comprehension than to vocabulary in both English and Chinese monolingual children.

Taken together, the general trend that emerges from the existing literature is that, for English monolingual children, different aspects of morphological awareness follow different developmental trajectories. Moreover, converging evidence points to a positive relationship between morphological awareness and vocabulary and reading

comprehension with some research suggesting that the influence on reading comprehension is greater than that on vocabulary.

### ***Morphological Awareness in Learning to Read Among Monolingual Chinese-Speaking Children***

The Chinese language contrasts with the English language in mainly three ways. Firstly, in Chinese, a morpheme usually corresponds to a syllable in spoken form and to a character in written form (grapheme). Learning to read Chinese thus entails the acquisition of grapheme-morpheme correspondences. Moreover, a spoken syllable in Chinese might represent several different morphemes, and learners have to focus on meanings (instead of sounds) of the language (Chung and Hu 2007; McBride-Chang et al. 2003). Lastly, Chinese is semantically a relatively transparent language, as 75% of words are compounds made up of two or more morphemes, where the meaning of each constituent morpheme contributes directly to the meaning of the compound (Chung and Hu 2007). Therefore, researchers have proposed that morphological awareness plays a critical role in Chinese reading (Kuo and Anderson 2006; Nagy and Anderson 1999).

But it was not until recently that systematic investigations of the impact of Chinese children's emerging morphological awareness on their reading began. Given the prominent proportion of compound words in Chinese, research has mainly focused on the awareness of compound morphology. Several correlation studies conducted among kindergarten and elementary school children demonstrate that children's compound morphological awareness is associated to a significant degree with their Chinese vocabulary knowledge (Ku and Anderson 2003; McBride-Chang et al. 2005; Wang et al. 2006). Morphological awareness has also been demonstrated in a handful of studies to facilitate reading comprehension in Chinese (Ku and Anderson 2003; Li et al. 2002; McBride-Chang et al. 2007; Shu et al. 2006). Shu et al. (2006) tested phonological awareness, morphological awareness, speeded number naming, and vocabulary among 77 Chinese fifth and sixth grade children to investigate the influence of these factors on Chinese reading development. Results showed that morphological awareness was the strongest linguistic knowledge correlate of reading comprehension, even after vocabulary had been controlled for. McBride-Chang et al. (2007) also found that when several reading-related skills were taken into consideration, morphological awareness was statistically significantly associated with reading comprehension among grade 3 Chinese children.

In sum, for Chinese monolingual children, morphological awareness has a substantial influence on vocabulary and reading comprehension of school-age children. It should be noted, however, that most of the studies focused just on compound morphology.



## ***Morphological Awareness in Learning to Read Among Bilingual Children***

Despite the investigations of morphological awareness among monolingual children, little attention has been given to morphological awareness in learning to read among bilingual children. One of the reasons to expect that literacy skills might develop differently in monolingual and bilingual children is that bilingual children may have the opportunity to transfer the skills acquired for reading in one language to reading in the other (Bialystok et al. 2005). Among the few crosslinguistic studies of morphological awareness available, most focus on languages with similar orthography such as English-French (Carlisle 2003), English-Spanish (Ramirez et al. 2010), English-Hebrew (Geva et al. 1997), etc. Only a few studies have investigated morphological transfer between English and Chinese (Wang et al. 2006; McBride-Chang et al. 2007), and the results are contradictory.

Wang et al. (2006) explored crosslinguistic transfer of derivational and compound morphological awareness in English and Chinese among a group of Chinese immigrant children in first to fourth grade in America by using comparable English and Chinese morphological awareness tasks. Results indicated that English compound morphological awareness uniquely contributes to Chinese reading comprehension, even after the within-Chinese related predictors (such as age, grade, vocabulary, and phonological awareness) were controlled for, while no association was found between English derivational morphological awareness and Chinese derivational morphological awareness. This finding suggests that there is a crosslinguistic morphological transfer in acquiring two different orthographies and that the transfer stems from the morphological structure shared by English and Chinese compound morphological structure. In a recent study involving 137 first to fourth grade Chinese-English immigrant children in Canada, Pasquarella et al. (2011) also showed that the awareness of compounds could be transferred between Chinese and English. However, in a study of 6–7-year-old Hong Kong Chinese children learning English as second language, McBride-Chang et al. (2007) showed different results. They found that Chinese morphological awareness explained the unique variance in Chinese vocabulary but not in English vocabulary, indicating no transfer of compound morphological awareness.

While these findings provide useful information on the development and influence of morphological awareness on reading acquisition in both languages, further research is needed. Firstly, most of the studies were conducted among either native English-speaking or native Chinese-speaking children; it is unknown whether and to what extent the conclusions drawn from those studies can be applied to bilingual children who are learning to read in English and Chinese simultaneously. Secondly, few studies have investigated different aspects of morphological awareness simultaneously. Thirdly, although there is evidence to support that morphological awareness is directly related to vocabulary but only indirectly related to reading comprehension, a few studies suggest that morphological awareness contributes uniquely to reading skills, beyond the mediating effect of vocabulary. The explicit



nature of the relationships remains unclear. Lastly, limited crosslinguistic research has been done to examine morphological transfer in English-Chinese bilingual children.

By employing assessment of two aspects – derivational and compound – of morphological awareness, the present study explores: (1) to what extent Primary 3 English-Chinese bilingual children in Singapore demonstrate derivational and compound morphological awareness in both languages, (2) how morphological awareness is related to vocabulary and reading comprehension in English and Chinese for these children, and (3) whether there will be any crosslinguistic morphological transfer of the shared morphological structure of the two languages.

## Methodology

### *Participants*

This study involves 76 Primary 3 children from a government-funded school in Singapore. There were 39 girls and 37 boys, with a mean age of 8.72 years ( $SD=0.3$ ). This age group was chosen because they are considered to be in the middle of the stage during which morphological awareness may begin to play a more influential role in vocabulary and reading comprehension (Anglin 1993; Carlisle 2003). In school, these children received English-medium instruction for the English language and all other subjects, except for the teaching of Chinese language, which was conducted entirely in Chinese. An informal interview with the language teachers in the school revealed that these children had one or two sessions for both languages on a daily basis, with each session lasting for 30 min.

Children were asked to fill out a short language background questionnaire (see Appendix 1) to indicate their preferred language and the languages spoken most frequently at home among family members. Similar language practices as Aman et al. (2009) were observed: about 72% of the children reported to use both English and Mandarin as their dominant home language; 18% stated that they used only English; and 10% said that only Mandarin was used at home.

## Instruments

### *Morphological Awareness Tasks*

Two morphological awareness tasks were adapted from Ku and Anderson (2003): a Discriminate Morphemes task and a Select Interpretation task. Both tasks had an English version and Chinese version and were designed to be of comparable difficulty so as to facilitate crosslinguistic comparisons. The English and Chinese words

in all the tasks were equated with regard to frequency of usage to control for familiarity. Furthermore, because Chinese language seldom involves phonological or orthographic alteration in complex word formation, the tasks contained only word pairs from the two languages with the same orthographic and phonological form. Because children might not be able to read some of the words in the two morphological awareness tasks, teachers read each word aloud.

### ***Discriminate Morphemes Task***

This task is an odd-man-out task examining whether children understand that a shared part of a complex word may have different meanings. There are 20 groups of words, with each group consisting of three words with a common part which has the same meaning in only two of the words. Children circle the odd word, that is, the one in which the common part has a different meaning. For instance, among the words *hallway*, *doorway*, and *anyway*, *way* in the first two words has the same meaning – *opening*, *passage* – but the *way* in *anyway* has a different meaning – *case*, *respect*. Two trial items were given. The reliability for the English version was .76, for the Chinese version .77.

### ***Select Interpretation Task***

This task was to assess whether children could apply their knowledge of the morphology of compounds and derivatives to select proper interpretations for low-frequency complex words that contain high-frequency base words. There were 16 items, which were presented in the form of multiple-choice questions, and children were asked to choose the proper interpretation of each word among four choices given. For instance, *rebuild*: (1) to build a house with bricks, (2) a man whose job is to build houses, (3) a tall building, (4) to build again. Children have to understand the meaning of the prefix *re-* and the base word *build* and recognize the meaning added by the prefix to choose the correct answer. The reliability for English version was .73, for the Chinese version .79.

### ***Vocabulary Task***

The Peabody Picture Vocabulary Test-III (PPVT-III) (Dunn and Dunn 1997) was used to measure the children's vocabulary knowledge. It has two parallel forms: Form M and Form L. In administering the test, the researcher read a word twice; the students were presented with four black-and-white pictures and asked to choose the picture that best described the word heard. Succeeding words increased in difficulty.

To facilitate test administration and to shorten administration time, modifications were made so that it could be administered to groups of children. For English, items appropriate for the age group in this study were chosen from Form M, with an alpha coefficient of .95. Two trial items were given.

For Chinese, equivalent items (with an alpha coefficient of .95 for this range of items) in Form L were translated into Chinese. To validate the translation, the translated Chinese words were translated back to English by another Chinese-English bilingual graduate student. In order to ensure the appropriateness of the test items, a P3 Chinese teacher was asked to rate the items with regard to the cultural relevance and the familiarity of the content. Although measures were taken to enhance validity and reliability, the translated test is not a standardized test so the scores can only provide an approximation of children's Chinese vocabulary. Two trial items were given.

### ***Reading Comprehension Task***

English reading comprehension was assessed using the Passage Comprehension subtest from the Woodcock Reading Mastery Tests – Revised-Normative Update (WRMT-R/NU) (Woodcock 1998). Participants were required to read a short passage and identify a missing key word that makes sense in the context of the passage. For instance, upon reading “Mama, Mama, can’t I have a bike?” asked Pedro. “All the boys have \_\_\_\_\_ to ride.”, children are supposed to fill the blank with words like “bikes,” “one,” “them.” Words like “some,” “a,” “rent,” or “get” are considered as incorrect. Passages appropriate for grade 2–4 were chosen, and the median split-half reliability for this age range was .83. Two trial items were given.

Chinese reading comprehension was measured with grade-appropriate reading comprehension tests available in Singapore. Passages with same number of questions were chosen. The reliability for this task was .79.

### **Procedure**

Permission to carry out the research was first obtained from the head of the department of the participating primary school and then from the parents of the participating children. The class teachers informed the children about the research and clarified that their participation would not affect their academic grades. All procedures for ethical research at the authors' institution were duly followed with permission granted from the affiliated university's Institutional Review Board.

Tests were administered in two sessions. During the first session, English vocabulary, reading comprehension tasks, and the two English morphological tasks were administered. On the second session, Chinese vocabulary, reading comprehension tasks, and the two Chinese morphological tasks were administered. Each test was

administered as a group test to the whole class in the children's classroom. Morphological tasks and vocabulary tests were read to the students, and reading comprehension tests were conducted in written form.

## Findings

### *Results*

#### **Descriptive Data**

Mean and standard deviation of the proportion correct for all tasks are provided in Table 6.1. The results show that Singaporean P3 bilingual children possess a certain level of morphological awareness in both languages. Since the test items in the morphological awareness tasks were designed to be of comparable difficulty in both languages, one-way analyses of variance (ANOVAs) were performed to compare the children's morphological awareness performances across languages. The results revealed that these children's scores for morphological awareness tasks in English were statistically significantly higher than those in Chinese ( $F(1,74)=79.97$ ,  $p<.001$ ). This indicates that these children have higher level of morphological awareness in English.

To gain more insight in children's morphological knowledge of derivatives and compounds, their performances on derivational and compound morphological awareness in English and Chinese were sought as well. Table 6.2 shows the mean scores and standard deviations for derivation morphological awareness and compound morphological awareness in both languages. For English, children performed equally well on derivatives and compounds in the English morphological awareness tasks. For Chinese morphological awareness tasks, children achieved higher scores

**Table 6.1** Mean percentage correct and standard deviation (SD) for all tasks

	Mean	SD
English tasks		
Discriminate Morphemes task	0.76	0.14
Select Interpretations task	0.59	0.13
Vocabulary	0.75	0.12
Reading comprehension	0.80	0.15
Chinese tasks		
Discriminate Morphemes task	0.59	0.17
Select Interpretations task	0.37	0.17
Vocabulary	0.59	0.14
Reading comprehension	0.67	0.27

**Table 6.2** Performance on derivatives and compounds in both languages

	Mean	SD
English morphological awareness of derivatives	0.69	0.13
English morphological awareness of compounds	0.69	0.13
Chinese morphological awareness of derivatives	0.45	0.21
Chinese morphological awareness of compounds	0.53	0.16

**Table 6.3** Morphological awareness, vocabulary, and reading comprehension in English

	English vocabulary	English reading comprehension
English morphological awareness	0.57**	0.62**
English vocabulary		0.48**

\*\* $p < .01$

**Table 6.4** Morphological awareness, vocabulary, and reading comprehension in Chinese

	Chinese vocabulary	Chinese reading comprehension
Chinese morphological awareness	0.41**	0.59**
Chinese vocabulary		0.48**

\*\* $p < .01$

on compound words than on derived words ( $t(75) = -19.81, p < .001$ ). This is consistent with the dominance of compounds in Chinese.

### Morphological Awareness, Vocabulary, and Reading Comprehension in English and Chinese

#### Within Language

Table 6.3 provides the Pearson correlations of morphological awareness with vocabulary and reading comprehension in English.

The results show that children’s English morphological awareness was statistically significantly correlated to vocabulary and reading comprehension ( $r = 0.57$  and  $0.62$ , both  $p < .01$ ). A higher correlation was obtained between morphological awareness and reading comprehension ( $r = 0.62, p < 0.01$ ) than between morphological awareness and vocabulary ( $r = 0.57, p < .01$ ).

Intercorrelations of morphological awareness with vocabulary and reading comprehension in Chinese are summarized in Table 6.4.

A similar pattern of correlations was demonstrated between Chinese morphological awareness and vocabulary and reading comprehension: morphological awareness was highly correlated to vocabulary and reading comprehension, with

**Table 6.5** Correlations among all measures

Variables	1	2	3	4	5	6	7
1. English derivational morphological awareness							
2. English compound morphological awareness	0.50**						
3. English vocabulary	0.49**	0.51**					
4. English reading comprehension	0.51**	0.56**	0.48**				
5. Chinese derivational morphological awareness	0.29**	0.21	0.14	0.38**			
6. Chinese compound morphological awareness	0.50**	0.34**	0.26*	0.39**	0.62**		
7. Chinese vocabulary	0.23	0.23	0.08	0.22	0.21	0.46**	
8. Chinese reading comprehension	0.54**	0.42**	0.38**	0.56**	0.45**	0.58**	0.48**

\*\* $p < .01$

higher correlation being obtained between morphological awareness and reading comprehension ( $r=0.59$ ,  $p<0.01$ ) than between morphological awareness and vocabulary ( $r=0.41$ ,  $p<0.01$ ).

### Crosslinguistic Transfer

To investigate the crosslinguistic morphological transfer, correlations among derivational and compound morphological awareness and literacy measures in both languages were carried out using the Pearson correlation. Results of these analyses are shown in Table 6.5.

Since the correlations between morphological awareness, vocabulary, and reading comprehension within the same language have been reported in the previous section, here, we focus only on associations between the same tasks across both languages, indicated in bold in Table 6.5. It was found that between the same tasks in the two languages, English derivational morphological awareness correlated with Chinese derivational morphological awareness ( $r=0.29$ ,  $p<.01$ ). Similarly, our analyses revealed that English compound morphological awareness was also statis-

tically significantly correlated with Chinese compound morphological awareness ( $r=0.34$ ,  $p<.01$ ). Taken together, the significant crosslinguistic correlations would suggest that morphological awareness could be transferred across languages in children who are learning to read in English and Chinese concurrently.

It is worth noticing that English derivational morphological awareness was statistically significantly correlated with Chinese compound morphological awareness ( $r=0.50$ ,  $p<.01$ ). The English derivational and compound morphological awareness were also found to be associated to a significant degree with Chinese reading comprehension ( $r=0.54$  and  $0.42$ , respectively,  $p<.01$ ). Similarly, Chinese derivational and compound morphological awareness were associated with English reading comprehension ( $r=0.38$  and  $0.39$ , respectively,  $p<.01$ ). These results imply that morphological skills might be transferable from one language to another language.

## Discussion

This study provides empirical, correlational evidence for a relationship between morphological awareness, vocabulary, and reading comprehension among English-Chinese bilingual children in Singapore. In addressing two aspects of morphological awareness, we depicted a more complete picture of derivational and compound morphological awareness in both English and Chinese. In terms of the impact on reading, our results suggest that for both languages, morphological awareness has a direct influence on reading comprehension beyond the mediating effect of vocabulary. Moreover, the results suggest there is a crosslinguistic transfer of morphological awareness.

### *Derivational and Compound Morphological Awareness in Both Languages*

Children displayed more compound ( $M=0.53$ ) than derivational morphological awareness ( $M=0.45$ ) in the Chinese morphological tasks. We believe this is due to the dominance of compound morphology in Chinese. Since derivatives constitute a larger share of multi-morphemic words than compounds in English (Anglin 1993; Tyler and Nagy 1989), it was expected that children display higher derivational morphological awareness. However, the results were not entirely consistent with this hypothesis as children performed similarly on derivatives and compounds in English. The results of the comparable performance may indicate that children's development of derivational morphological awareness lags behind that of compound morphological awareness. Previous studies showed that for English monolingual children, compound morphological awareness develops before formal literacy instruction begins, whereas knowledge of derivational morphology usually does not

emerge until mid-elementary grades, during which approximately 60% of the new words are derived forms (Anglin 1993). Hence, it is possible that for the P3 Singaporean bilingual children involved in the present study, their sensitivity to the prefixes and suffixes in derivational words was only beginning to develop as they were still in the process of learning to read in English, while their knowledge of compound morphology was well under way. These developmental trends may have led to the comparable performance in these two aspects of morphological awareness in the present study.

Another factor contributing to the comparable performance in these two aspects of morphological awareness may have been the language background of the current sample. Despite receiving English-medium education, the participating children have been exposed to both English and Chinese through media and intergenerational transmission resources at home. Given the constant exposure to both languages and the prevalence of compounds in Chinese, it is possible these children have become more sensitive to compound structures in both languages, and this tendency has continued into early primary school years.

### ***Contributions of Morphological Awareness to Reading Comprehension***

Although the research design does not clarify the influence of developmental or crosslinguistic factors in English derivational morphology, results from our study reveal strong evidence of within and crosslinguistic associations of morphological awareness overall to the biliteracy development of Singaporean English-Chinese bilingual children. These are summarized below.

#### ***Within Language Association***

The results demonstrate that performance in morphological tasks was statistically significantly correlated with vocabulary and reading comprehension in both languages, which further reinforces the importance of morphological awareness in literacy acquisition and is consistent with previous research of monolingual English- and Chinese-speaking children (Carlisle 2003; Carlisle and Fleming 2003; Chung and Hu 2007; Ku and Anderson 2003; McBride-Chang et al. 2005; Wang et al. 2006). The strong association of morphological awareness with vocabulary and reading comprehension may be due to the gradual increase of exposure to and acquisition of morphologically complex words through academic learning in mid-primary school years (Anglin 1993; Nagy and Anderson 1984). After children move beyond lower primary years, their reading vocabulary becomes more complex. The ability to recognize morphological relationships between words and conduct



morphological analysis enables children to decompose words into their constituent components and synthesize their meanings, that is, when children encounter unfamiliar multi-morphemic words such as *unacceptable*, they may recognize the familiar affixes un- and -able, and the base word accept, and then construct the meaning of the unfamiliar *unacceptable* from its familiar constituents. This ability is believed to greatly contribute to rapid vocabulary growth during mid-primary school years (Nagy and Anderson 1984). Given the close association between vocabulary and reading comprehension (Anderson and Freebody 1981; Hudson 2007), it would seem that morphological awareness may contribute indirectly to reading comprehension and directly to vocabulary development. Hence, a higher correlation between morphological awareness and vocabulary could be expected than between morphological awareness and reading comprehension. However, findings from our study are not consistent with this expectation. In our results, morphological awareness was found to be more related to reading comprehension than to vocabulary for both languages. Several earlier studies have reported similar results (Carlisle 1995; Ku and Anderson 2003; Nagy et al. 2003). This may indicate that morphological awareness is associated directly with reading comprehension, beyond the mediating effect of vocabulary. The underlying cause may be that, although understanding the pronunciations and definitions of specific words can facilitate comprehension of those words, it is less likely to help children decipher the meanings of other words or to generate original words in different contexts (Kirby et al. 2008). Therefore, skills that tap into deciphering the meaning of words and understanding word formation rules – such as morphological awareness – can assist children in learning new words across contexts.

Another possible explanation is that morphemes carry both semantic and syntactic meaning, which can be helpful in constructing meaning from text. Morphological insights can provide clues to the semantic decomposition process and the grammatical roles of words within sentences, whereby familiar morphemes are recognized within an unfamiliar context and are used to construct meaning. Therefore, morphological awareness may influence reading comprehension directly by assisting children derive semantic and syntactic information. However, there seems to be a threshold developmental level for morphological awareness to contribute independently to reading comprehension. In a longitudinal study, involving children from kindergarten and grade 1, Carlisle (1995) found a strong relationship between morphological awareness and reading comprehension among grade 1 children, but not in kindergarten children. Nagy et al. (2003) also found no association between morphological awareness and reading comprehension among younger children. They argue, therefore, that children may need to reach certain level of morphological awareness before they can utilize their morphological skills as a tool for comprehending a text.

## ***Crosslinguistic Association***

According to Cummins' Common Underlying Proficiency (CUP) theory (Cummins 1991, 2000), academic language proficiency and cognitive ability may be transferable across languages. Although the surface features, such as pronunciation and spelling, of any two languages may be different, an underlying cognitive proficiency supported by shared knowledge derived from learning/experience and the cognitive and linguistic abilities of the learner is common across languages. With adequate linguistic exposure and experience in the two languages, learners can be expected to develop common underlying proficiency skills which can be transferred from one language to the other.

The probability of such transfer depends on the extent to which the languages share semantic and syntactic structures. In Chinese, each morpheme represents an independent meaning in a complex word (dual or triple morpheme words). Words constructed with the same morpheme usually have similar meanings as they provide semantic information related to the original meaning of the morpheme. Examples of such complex dual morpheme words are 面 (flour)+包=bread, 面粉 (flour-powder), and 面条 (flour-noodle). English compound words function similarly to Chinese compound words, that is, two words in a compound word make up an independent meaning, for instance, *moonlight* and *sunshine*. This leads to the hypothesis that crosslinguistic morphological transfer occurs for the compound morphology between the two languages. The results tend to confirm this hypothesis by showing a significant correlation between English compound morphological awareness and Chinese compound morphological awareness which is consistent with the studies conducted by Wang et al. (2006) and Pasquarella et al. (2011).

One of the most interesting findings in this study is that the correlation between English derivational morphological awareness and Chinese compound morphological awareness ( $r=0.50, p<.01$ ) was higher than that between English compound morphological awareness and Chinese compound morphological awareness ( $r=0.34, p<.01$ ). To elucidate the implication of this result, we need to first consider the derivational words included in the English morphological awareness tasks. As mentioned earlier, those derivational words do not involve phonological or structure changes, and the affixes for the derivatives are of high frequency and productive, such as *dis-*, *-er*, *re-*, etc. The way to form such derivatives is to join affixes and base words, which is very similar to compound word formation rules. For example, when children come across the word 'rebuild' for the first time, they may recognize the familiar affix *re-* and base word 'build,' and then construct the meaning of the unfamiliar word based on its familiar constituents. Therefore, the process of decomposing such derivational words is similar to that of Chinese compounds. Given that English derivational morphological awareness just began to emerge among these children and their Chinese compound morphological awareness was well underway, this result may suggest that children can apply their knowledge of Chinese compound morphology (combining roots) in the learning of English transparent derived words that do not involve phonological or orthographic alterations.

These findings not only lend support to Cummins' CUP theory but may also help to explain the close association between morphological awareness in one language and reading comprehension in another language. The ability to combine several semantic units, which is central to morphological awareness, may influence the real-time processing of reading passages.

## Conclusion

Results from the present study fill some gaps in the understanding of the role of morphological awareness in literacy development. Firstly, it shows that the links between morphological awareness, vocabulary, and reading comprehension found among English and Chinese monolingual children are equally important for learning to read in both languages for children who learn concurrently to read in English and in Chinese. Secondly, the present study depicts a more complete picture of morphological awareness in both languages by including assessment of two aspects of morphological awareness – derivational and compound. Moreover, this study suggests that language transfer can occur for morphological awareness.

An important pedagogical implication arising from the findings of the study is to incorporate morphology into Chinese literacy instruction. English word formation rules such as derivational principles governing high-frequency and productive affixes (e.g., -er, un-, etc.) have been introduced during early primary years in Singapore (Ministry of Education [MOE] 2001), though not all schools put equal emphasis on these learning points (see Zhang and Li, this volume, Chap. 12). In contrast, Chinese language instruction has mainly focused on learning to pronounce and write the characters correctly rather than on analyzing the morphological structure of words (MOE 2007). Given the close association of morphological awareness with vocabulary and reading comprehension, promotion of students' Chinese morphological awareness should be seen as a metalinguistic tool to increase vocabulary and enhance reading comprehension in Chinese.

More importantly, findings from the present study highlight the critical role that language background, language structure, and medium of instruction play on bilingual children's morphological awareness development. Being bilingual may not on its own have a monolithic effect on the establishment of morphological awareness in either language; rather, biliteracy development is a series of interactions of bilingualism, language learning environment, language structures, and the focus of language instruction. Therefore, to understand how Singaporean Chinese bilingual children become literate in English and Chinese, a variety of factors must be taken into consideration, such as language learning environment, different features of English and Chinese language, and language instruction in school.

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## Appendix 1

### Language Background Questionnaire

Please fill in the blanks and tick “✓” at the “☐” where necessary

- 1. Name \_\_\_\_\_
- 2. Class \_\_\_\_\_
- 3. Date of birth: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(day / month / year)
- 4.  Boy  Girl
- 5. Please tick “✓” where necessary

	English	English and Mandarin	Mandarin	Mandarin and/or Chinese dialect	Malay	Tamil	Others
Language used between parents							
Language used from parents to you							
Language used from you to parents							

## References

Aman, N., Vaish, V., Bokhorst-Heng, W., Jamaludeen, A., Durgadevi, P., Feng, Y. Y., Khoo, B. S., Mardiana, R., Appleyard, P., & Tan, T. K. (2009). *The sociolinguistic survey of Singapore 2006*. Final report. Singapore: National Institute of Education. Retrieved from [http://repository.nie.edu.sg/jspui/bitstream/10497/3390/1/CRP22\\_04andCRP23\\_04AL\\_FinalResRpt.pdf](http://repository.nie.edu.sg/jspui/bitstream/10497/3390/1/CRP22_04andCRP23_04AL_FinalResRpt.pdf)

Anderson, R. C., & Freebody, P. (1981). Vocabulary knowledge. In J. Guthrie (Ed.), *Comprehension and teaching: Research review* (pp. 77–117). Newark: International Reading Association.

Anglin, J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society of Research in Child Development*, 58, i-186.

- Berko, J. (1958). The child's learning of English morphology. *Word*, 14, 150–177.
- Bialystok, E., McBride-Chang, C., & Luk, G. (2005). Bilingualism, language proficiency, and learning to read in two writing systems. *Journal of Educational Psychology*, 97(4), 580–590. doi:10.1037/0022-0663.97.4.580.
- Bokhorst-Heng, W. D., & Caleon, I. S. (2009). The language attitudes of bilingual youth in multilingual Singapore. *Journal of Multilingual and Multicultural Development*, 30(3), 235–251. doi:10.1080/01434630802510121.
- Carlisle, J. F. (1995). Morphological awareness and early reading achievement. In L. Feldman (Ed.), *Morphological aspects of language processing* (pp. 189–209). Mahwah: Lawrence Erlbaum Associates Inc.
- Carlisle, J. (2003). Morphology matters in learning to read: A commentary. *Reading Psychology*, 24, 291–332. doi:10.1080/02702710390227369.
- Carlisle, J. F. (2010). An integrative review of the effects of instruction in morphological awareness on literacy achievement. *Reading Research Quarterly*, 45(4), 464–487. doi:10.1598/RRQ.45.4.5.
- Carlisle, J. F., & Fleming, J. (2003). Lexical processing of morphologically complex words in the elementary years. *Scientific Studies of Reading*, 7, 239–253. doi:10.1207/S1532799XSSR0703\_3.
- Chomsky, N., & Halle, M. (1968). *The sound pattern of English*. New York: Harper & Row.
- Chung, W., & Hu, C. (2007). Morphological awareness and learning to read Chinese. *Reading and Writing*, 20(5), 441–461. doi:10.1007/s11145-006-9037-7.
- Cummins, J. (1991). Interdependence of first- and second-language proficiency in bilingual children. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 70–89). Cambridge: Cambridge University Press.
- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. Clevedon: Multilingual Matters.
- Curdt-Christiansen, X. L. (2009). Love of reading: The evaluation of KidsREAD programme in Singapore. *The International Journal of Learning*, 16(9), 69–85.
- Deacon, S. H., & Kirby, J. R. (2004). Morphological awareness: Just “more phonological”? The roles of morphological and phonological awareness in reading development. *Applied Psycholinguistics*, 25(2), 223–238. doi:10.1017/S0142716404001110.
- Dixon, L. Q. (2005). Bilingual education policy in Singapore: An analysis of its sociohistorical roots and current academic outcomes. *International Journal of Bilingual Education and Bilingualism*, 8(1), 25–47. doi:10.1080/jBEB.v8.i1.pg25.
- Dunn, L., & Dunn, L. (1997). *Peabody picture vocabulary test* (3rd ed.). Circle Pines: American Guidance Service.
- Geva, E., Wade-Wooley, L., & Shany, M. (1997). Development of reading efficiency in first and second language. *Scientific Studies of Reading*, 1, 119–144. doi:10.1207/s1532799xssr0102\_2.
- Goh, C. C. M. (2003). Speech as a psycholinguistic process: The missing link in oral lessons. *Review of Research and Advances for Classroom Teachers*, 22, 31–41.
- Goswami, U. (2006). Phonological awareness and literacy. In K. Brown (Ed.), *Encyclopedia of language & linguistics* (pp. 489–497). Oxford: Elsevier.
- Hudson, T. (2007). *Teaching second language reading*. New York: Oxford University Press.
- Kirby, J. R., Desrochers, A., Roth, L., & Lai, S. S. V. (2008). Longitudinal predictors of word reading development. *Canadian Psychology*, 49(2), 103–110. doi:10.1037/0708-5591.49.2.103.
- Koda, K., & Zehler, A. M. (Eds.). (2008). *Learning to read across languages*. Mahwah: Lawrence Erlbaum Associates.
- Ku, Y.-M., & Anderson, R. C. (2003). Development of morphological awareness in Chinese and English. *Reading and Writing: An Interdisciplinary Journal*, 16, 399–422.
- Kuo, L., & Anderson, R. C. (2006). Morphological awareness and learning to read: A cross-language perspective. *Educational Psychologist*, 41(3), 161–180. doi:10.1207/s15326985ep4103\_3.
- Li, W., Anderson, R. C., Nagy, W., & Zhang, H. (2002). Facets of metalinguistic awareness that contribute to Chinese literacy. In W. Li, J. S. Gaffney, & J. L. Packard (Eds.), *Chinese chil-*

- dren's reading acquisition: Theoretical and pedagogical issues*. London: Kluwer Academic Press.
- Liu, Y. B., & Zhao, S. H. (2008). Chinese language instruction in Singapore primary school classrooms. *Pedagogies: An International Journal*, 3(3), 168–186.
- McBride-Chang, C., Shu, H., Zhou, A., Wat, C. P., & Wagner, R. K. (2003). Morphological awareness uniquely predicts young children's Chinese character recognition. *Journal of Educational Psychology*, 95, 743–751. doi:10.1037/0022-0663.95.4.743.
- McBride-Chang, C., Wagner, R., Muse, A., Chow, R., & Shu, H. (2005). The role of morphological awareness in children's vocabulary acquisition in English. *Applied Psycholinguistics*, 26, 415–435. doi:10.1017/S014271640505023X.
- McBride-Chang, C., Shu, H., Ng, J. Y. W., Meng, X., & Penney, T. (2007). Morphological structure awareness, vocabulary, and reading. In R. K. Wagner, A. E. Muse, & K. R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 104–122). New York: Guilford Press.
- MOE. (2001) *2001 English language (primary and secondary) syllabus*. Retrieved from <http://www.moe.gov.sg/education/syllabuses/languages-and-literature>
- MOE. (2007). *2007 Chinese language (primary) syllabus*. Retrieved from <http://www.moe.gov.sg/education/syllabuses/languages-and-literature>
- Nagy, W., & Anderson, R. C. (1984). How many words are there in printed school English? *Reading Research Quarterly*, 19, 304–330. doi:10.2307/747823.
- Nagy, W. E., & Anderson, R. C. (1999). Metalinguistic awareness and literacy acquisition in different languages. In D. Wagner, R. Venezky, & B. Street (Eds.), *Literacy: An international handbook* (pp. 155–160). Boulder: Westview Press.
- Nagy, W. E., Berninger, V. W., Abbott, R. C., Vaughan, K., & Vermeulen, K. (2003). Relationship of morphology and other language skills to literacy skills in at-risk second-grade readers and at-risk fourth-grade writers. *Journal of Educational Psychology*, 95, 730–742. doi:10.1037/0022-0663.95.4.730.
- Pakir, A. (2008). Bilingual education in Singapore. In J. Cummins & N. Hornberger (Eds.), *Encyclopedia of language and education: Bilingual education* (pp. 191–204). Berlin: Springer.
- Pasquarella, A., Chen, X., Lam, K., Luo, Y. C., & Ramirez, G. (2011). Cross-language transfer of morphological awareness in Chinese–English bilinguals. *Journal of Research in Reading*, 34, 23–42. doi:10.1111/j.1467-9817.2010.01484.x.
- Ramirez, G., Xi, C., Geva, E., & Kiefer, H. (2010). Morphological awareness in Spanish-speaking English language learners: Within and cross-language effects on word reading. *Reading & Writing*, 23(3/4), 337–358. doi:10.1007/s11145-009-9203-9.
- Shu, H., McBride-Chang, C., Wu, S., & Liu, H. (2006). Understanding Chinese developmental dyslexia: Morphological awareness as a core cognitive construct. *Journal of Educational Psychology*, 98(1), 122–133. doi:10.1037/0022-0663.98.1.122.
- Singapore Department of Statistics. (2010). *Census of the population: Education, language and religion*. Singapore: Author. <http://www.singstat.gov.sg/>
- Tan, C. (2006). Change and continuity: Chinese language policy in Singapore. *Language Policy*, 5(1), 41–62. doi:10.1007/s10993-005-5625-7.
- Tyler, A., & Nagy, W. E. (1989). The acquisition of English derivational morphology. *Journal of Memory and Language*, 28, 649–667. doi:10.1016/0749-596X(89)90002-8.
- Vaish, V. (2007). Bilingualism without diglossia: The Indian community in Singapore. *The International Journal of Bilingual Education and Bilingualism*, 10(2), 171–185. doi:10.2167/beb400.0.
- Wang, M., Cheng, C. X., & Chen, S. W. (2006). Contribution of morphological awareness to Chinese-English biliteracy acquisition. *Journal of Educational Psychology*, 98(3), 542–553. doi:10.1037/0022-0663.98.3.542.
- Woodcock, R. W. (1998). *Woodcock Reading Mastery Tests – Revised-Normative Update (WRMT-R/NU)*. Allen: DLM.

# Chapter 7

## Taking Stock of the Effects of Strategies-Based Instruction on Writing in Chinese and English in Singapore Primary Classrooms

Lawrence Jun Zhang, Vahid Aryadoust, and Donglan Zhang

### Introduction

Singapore puts in place a unique quadrilingual policy in education, by which English is offered as the first language of the school and one of the other three mother tongue languages (Chinese, Malay and Tamil) as a second language subject in the national curriculum. All school children from Primary 1 onwards are expected to become bilingual and biliterate. The system as a whole is internationally regarded as successful. Considering just the English scores, for example, which would involve all students in the quadrilingual system, Singaporean students have performed well in English reading benchmarks against other English-speaking countries such as the UK, the USA, Australia, Canada and New Zealand on international tests such as the Programme for International Student Assessment (PISA) (OECD 2010) and the Progress in International Reading and Literacy Study (PIRLS) (Mullis et al. 2007, 2012).

However, there are challenges in biliteracy learning. The challenges come from two main sources. First, there is a lack of coordination between the English language teachers and the mother tongue teachers. This two-worlds apart view is partially a result of the lack of communication between the teachers of the two

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languages in school settings. Rather than promoting multilingualism, such policy and pedagogical practices promote language separation. Second, the standards for bilingual and biliterate proficiency are rather high. This has been particularly noted for the Chinese language, and, although the release of the Chinese Language syllabus 'B' (discussed below) has made it possible for Chinese Singaporean children who come from English-dominant homes to take Chinese at a lower level in the education system, the challenges for learning it remain. Such challenges are in part attributed to the dominant use of English in society and the prestige that it carries, as evidenced by more students succeeding in English examinations than in their mother tongue languages.

To facilitate communication among teachers of Chinese and teachers of English for better outcomes in students' biliteracy learning, we developed an intervention programme that introduced strategies-based instruction (SBI) simultaneously in both language classrooms. This chapter reports on that programme and on the effects of SBI in pedagogical practices in bilingual/biliteracy learning.

## English and Chinese Syllabuses

In the national language and literacy curriculum, the primary focus of the English Language syllabus (Ministry of Education [MOE] 2001) is language use.<sup>1</sup> Language is regarded as a system for making meaning and as a means of communication and expression; language use is determined by the purpose, audience, context and culture. That is, language in the curriculum is viewed as having grammar and linguistic structures and patterns which can be used to create various discourse forms or text types depending on the linguistic choices made. Schoolchildren thus have to be taught how to make these linguistic choices to suit the purpose, audience, context and culture (MOE 2001, p. 5). Communicative language teaching (CLT) principles are the driving force for the development of the English Language syllabus (MOE 2001). These principles, which essentially advocate teaching language skills for and as communication, are represented in a text-based approach that draws heavily on genre theory (e.g., Derewianka 1996; Halliday 1985).

The Chinese Language syllabus used to set a proficiency standard on par with that of Chinese language and literacy learning in Mainland China or Taiwan. However, given the predominant use of English in society and its role in education in Singapore, the number of Chinese Singaporean children who face challenges in learning the written script of the language has been increasing. The government formed a Chinese Language Curriculum and Pedagogy Review Committee to investigate the issue in 2004 and proposed a stratified system for instruction. Those who are able follow the regular syllabus; those who are not follow a relatively easier

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<sup>1</sup> During the time of this study, the 2001 English language syllabus was in place. A new syllabus was introduced in 2010. Although there are some changes, the new syllabus maintains the same focus on language use. See MOE (2010) for information.



programme, known as the Chinese Language syllabus ‘B’ (MOE 2007; Tan and Ng 2011). This syllabus recommends a focus on oral skills and basic literacy with a goal of developing effective communication and literacy (e.g., decoding, word recognition, reading comprehension and writing for an intended audience).<sup>2</sup> This stratification begins in primary school, where the conceptual understanding of language and literacy learning is in alignment with what is represented in the English Language syllabus. Although the syllabuses of both languages set learning outcomes for each stage of development, translating these goals into achievable outcomes in relation to the communicative language teaching principles needs teachers’ explicit instruction. Unfortunately, not all teachers know how to do so despite the availability of the syllabus documents.

One big difference facing Chinese language teaching and learning vis-à-vis the teaching and learning of English is the limited number of class hours allocated to Chinese (Chinese as a subject and its related Good Citizen textbook for civics education) in the national curriculum, which is about 6 hours per week. Although the number of hours for English language is similar, learners’ exposure to English in other subjects (Science, Physical Education, Maths and Social Studies), which are learned and taught through the medium of English, provides extra opportunities for learning and using English. Such a situation also gives learners an impression that English is more important than Chinese.

There are also other differences. Firstly, due to historical reasons as well as linguistic differences between English and Chinese, the teaching of Chinese in Singapore primary schools has always stressed the importance of memorisation of Chinese characters (or *moxie* in Chinese) for developing communication skills and literacy. There is not so much emphasis on memorisation in the English class. Secondly, the English Language syllabus 2001, which does not have a target word list as a learning outcome as does the Chinese Language syllabus, highlights “contextualisation”, “learner-centred interaction”, “integration”, “process orientation” and “spiral progression” as explicit instructional principles. But the Chinese Language syllabus states these principles in very broad terms such as becoming “autonomous” learners and “critical” readers. Thirdly, the English Language syllabus postulates the notion that English is key to success in society, but the Chinese Language syllabus promotes the idea of using the language for maintaining the cultural heritage. Also, although the English Language syllabus 2001 gives broad guidelines on how to teach reading and writing, teachers are not always clear about how to implement a pedagogy that takes into consideration these strategies (Goh et al. 2005). The Chinese Language syllabus (MOE 2007) does not mention any reading or writing strategies for student writers at all; neither does it recommend specific instructional strategies. Thus, the similarity and differences in syllabus design offer us an opportunity to examine biliteracy learning, specifically, learning how to write in Chinese and in English.

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<sup>2</sup>There is also an option for ‘higher mother tongue’ instruction for those who perform exceptionally well in mother tongue Chinese.

## Research on the Effects of Strategies-Based Instruction

Given the explicit stipulation in the English Language syllabus (MOE 2001) that language learning should be for “making meaning” (p. 3), we started a two-year intervention project in two primary schools in 2009. The goal was to determine whether, and to what extent, explicit strategy instruction would facilitate improvement in English and Chinese writing for Singaporean primary students, while also help them make meaningful connections to their own personal lives. To make the intervention more focused and more suitable for our target students, we conducted a preparatory study to evaluate the students’ status quo of strategy use in English and Chinese writing. We administered a writing strategies survey in two versions (one for English writing and the other Chinese writing) to the whole cohort of Primary 3 students at both schools in semester two prior to the intervention. At the same time, we collected demographic information about the participants as well as information about their interests, self-efficacy and out-of-school study effort in English and Chinese literacy learning. (See Gong et al. 2011, for findings from the pilot study). This chapter reports on the main study, which explored the effects of a strategies-based instruction (SBI) intervention programme that followed a parallel pedagogical cycle in both English and Chinese classrooms on students’ awareness of writing strategies and writing improvement in Chinese and English. Before presenting the study, we briefly discuss some issues related to SBI.

### *Writing as Strategic Processes*

Block and Duffy (2008) postulate that reading comprehension “is a strategic process; that is, good readers proactively search for meaning as they read, using text cues and their background knowledge in combination to generate predictions, monitor those predictions, re-predict when necessary, and generally construct a representation of the author’s meaning” (p. 21). Thus, reading strategies are “deliberate, goal-directed attempts to control and modify the reader’s efforts to decode text, understand words, and construct meanings of text” (Afflerbach et al. 2008, p. 368). Similarly, a number of scholars present evidence that writing is a series of strategic actions (Bereiter and Scardamalia 1987; Flower and Hayes 1981; Harris et al. 2010; Kellogg 1996).

Studies suggest that writing, too, as a process, involves multiple strategic behaviours on the part of the writer. Harris et al. (2010) posit that “writing is a recursive, strategic, and multidimensional process central to (1) planning what to say and how to say it; (2) translating ideas into written text; and (3) revising what has been written” (p. 226). As a productive skill, writing involves greater deliberate control and goal directedness because the writer must “negotiate the rules and mechanics of writing while maintaining a focus on factors such as organization, form and features, purposes and goals, audience perspectives and needs, and evaluation of

communicative intent and efficacy” (p. 132). Also, writers’ planning and revising have effects on composition quality (Ong and Zhang 2010a, 2013). Thus, it is clear that, to promote English-Chinese biliteracy development, it is very important to raise students’ awareness about the strategic nature of the writing process and familiarise them with the strategies that successful writers tend to use (Harris et al. 2008). Our application of SBI was intended to serve this purpose.

### *SBI in the Language Learning Curriculum*

Cohen and Dörnyei (2002) state that SBI, as a form of language teaching, focuses on developing student capacity. SBI is characterised by an explicit combination of strategy training activities with classroom-based language instruction. Its premise is that students should be given the opportunity to understand not only *what* they can learn in the language classroom but also *how* they can learn the language they are studying more effectively and efficiently. It is intended to help students become more aware of the kinds of strategies available to them, how to organise and use strategies systematically and effectively and when and how to transfer the strategies to new language learning and using contexts.

It needs to be mentioned that educational researchers offer various models for implementing SBI. Some models are purposefully developed for teaching strategies related to learning a first language (e.g., Pressley et al. 1992) and others related to learning a second language (Chamot et al. 1999; Cohen 1998; Macaro 2006). But all of these models share some common features in terms of the procedures recommended for classroom teachers to use. One of the most successful models is the Cognitive Academic Language Learning Approach (CALLA) (Chamot et al. 1999), which has been successfully implemented in US schools in second language and content-based English language instruction. We adopted the CALLA framework in our intervention because it takes into consideration content, language and learning/writing strategies (Chamot et al. 1999). Specifically, Chamot et al. (1999) recommend that, in conducting SBI, teachers should follow a 5-step cycle: (1) preparation (i.e., getting ready for strategic engagement), (2) presentation (teaching the strategies explicitly), (3) practice (practising strategies just taught), (4) self-evaluation (evaluating the appropriacy and effectiveness of strategy use) and (5) expansion (transferring the learned strategies to new learning tasks).

The advantage of this pedagogical cycle is that the steps allow for a gradual release of responsibility from the teacher to learners so that students can take charge of their learning through the use of LLSs independently. These steps have several benefits:

1. Learners are enabled to become aware of the strategies they already use.
2. Teachers’ presentation and modelling of how strategies can be used effectively to help students become aware of their own thinking and learning processes.

3. Teachers' provision of ample opportunities for students to use the learned strategies enables students to become autonomous users of these strategies when teacher scaffolding is removed.
4. Self-evaluation of the utility and effectiveness of the strategies enables students to subsequently transfer such strategies to new learning tasks.

There have been discussions about whether SBI should be integrated into the regular language curriculum, embedded in the teaching materials and made explicit or separated from the content the teacher teaches (e.g., O'Malle and Chamot 1990). After many years of debate, the collective wisdom from the field is that the fundamental goal of SBI is to promote learners' self-management, metacognitive knowledge and metacognitive regulation for more effective language learning (Anderson 2012; Chamot et al. 1999; Oxford 2011; Rubin et al. 2007; Zhang 2001, 2010a; Zhang and Goh 2006). The rationale behind SBI is that students will be developed into more effective, strategic language learners if they are made aware of useful strategies and become competent users of them. When SBI is provided and integrated into the regular curriculum, students will be able to select the strategies they already know and learn to use other strategies to which they have just been introduced and apply them to new learning contexts.

Given the promotion of reading and writing strategies in the 2001 English Language syllabus and the lack of it in the 2007 Chinese Language syllabus, we think that it is good to adopt the essence of SBI by integrating writing strategies into the Chinese and English curricula. We also think that implementing SBI in both English and Chinese classes will provide unique opportunities for teachers of English and teachers of Chinese to work together so that the compartmentalised knowledge base of the two groups of teachers could be synergised for student benefit.

## Research Questions

We intended to answer the following research questions:

1. When integrated into the regular curriculum, does SBI have an impact on bilingual students' understanding of the writing processes in their two languages?
2. Specifically, does SBI lead to writing improvement in both languages?

## Methodology

### *Participants*

A total of 612 Singaporean Primary 3 students from two neighbourhood primary schools were invited to participate in this study. They were requested to respond to a demographic questionnaire (Appendix A) and a survey on writing strategies

(Appendix B). All the participants answered the questionnaire and the survey, but some participants did not complete all the items in either the questionnaire or the survey. As a result, we had a valid sample of 601, which included 314 (52.25%) male and 287 (47.75%) female participants. Of all the participants, 441 (73.38%) were Chinese, 126 (20.97%) Malay and 34 (5.66%) Indian or from other ethnic groups.

As Table 7.1 shows, the total number of participants who reported coming from families using predominantly one language at home is 186. One hundred and seventy-nine of them reported that they were from families, where English, Chinese, Malay or Tamil was predominantly spoken, and another seven of them came from families where other languages were spoken. The rest were from bilingual families where English was spoken alongside another language. We included only the Chinese and English bilinguals in the intervention programme. Because our research design requires that all the participants in the intervention had to be students taking Chinese as a mother tongue in the school curriculum, we sought help from the teachers of English and teachers of Chinese involved in this research project to identify these students. We also requested assistance from the Heads of Department (HoDs) of English and Chinese, respectively, at the two schools. These HoDs, working together with the participating teachers, verified the students' second language status. In English classes all students of different ethnic backgrounds were immersed in the SBI intervention. Because Chinese lessons were only given to students of Chinese ethnicity, when teachers integrated our SBI package in their regular lessons, only these Chinese students were the participants in the intervention programme. In the end, a total of 326 Chinese-English bilinguals aged between 8 and 11 years ( $M=8.94$ ;  $SD=0.34$ ) from the two participating schools met our requirements and were invited to participate in the intervention study. In other words, they participated in the intervention programme in Chinese and English (see Table 7.2).

**Table 7.1** Participants' predominant family language background ( $n=601$ )

	Number	%
English only	49	8.20
Chinese only	84	14.0
Malay only	44	7.30
Tamil only	2	0.30
Other language only	7	1.20
Chinese and English bilinguals	321	53.4
Malay and English bilinguals	76	12.6
Tamil and English bilinguals	15	2.50
Other language speakers	3	0.50
Total	601	100.0

**Table 7.2** Participant information in the intervention study

Age	Intervention group	Comparison group	Total
8	18	11	29
9	157	134	291
10	1	2	3
11	2	1	3
Total	178	148	326

### *Intervention Group vs. Comparison Group*

The study included an intervention group and a comparison group, as shown in Table 7.2, to compare the pedagogical effects of SBI on students' improvement both in terms of their awareness of writing strategies and writing performance in English and Chinese over a period of one semester (10 weeks of teaching) in the regular school curriculum. The study was conducted in two parts, both of which included a pretest and a post-test.

Part I was a large-scale survey conducted in three Singaporean primary schools involving 901 students. Its purpose was to identify the Primary 3 school children's perceived use of writing strategies in both English and Chinese. Part II was classroom-based intervention, which involved a total of 326 English-Chinese bilingual students from two of the three primary schools chosen based on their similar demography in the control and intervention groups. While both the intervention group and the comparison group participated in Part I, the SBI-based writing instruction package was used only with the intervention group. The comparison group teachers were not provided with the training package nor were they invited to participate in the training workshop offered to the intervention group teachers at the two schools. Instead, they were expected to teach their own writing classes according to their own schedules and plans. To maintain equity, we sent our SBI-based writing instruction package to the comparison group teachers after our intervention programme was complete, so that they could implement it in their own classes in a subsequent semester.

Following the principles of purposive sampling, before the intervention proceeded, we assigned the 326 Chinese-English bilingual students to either the intervention or the comparison group based on their cumulative general proficiency in English and Chinese, obtained with reference to the students' performance on the continual assessment and other regular or informal tests conducted by the schools (see Table 7.1). The participants' English and Chinese writing scores, as measured by an assigned composition at the beginning, were also collected. The students' awareness of writing strategies for writing in English and in Chinese was assessed using a writing strategies survey in two slightly different versions (see below for explanation). There were thus two intervention classes in each of the two schools and two comparison classes.

Pretests of the participants' language proficiency and writing scores showed that the intervention and the comparison groups were not statistically different ( $p > 0.05$ ). Pretest results showed that the two groups' awareness of one strategy cluster, global planning for writing in English, was in favour of the intervention group ( $p < .05$ ). The two groups' awareness of Chinese writing strategies was also compared, but no statistically significant results were observed.

## ***Instrumentation***

We administered the writing strategy survey to the participants in two separate sessions. The survey was in two versions, one about writing in English and the other about writing in Chinese. We also used a SBI writing package in two versions (Chinese and English) and an English writing test and a Chinese writing test. We describe the procedures in some detail below.

### **Survey of Student Awareness of Writing Strategies**

Drawing on studies about language learning strategies in general (Chamot et al. 1999; Cohen 1998; Macaro and Cohen 2007; Oxford 1990, 2011; Zhang 2008), and on research findings about upper primary, i.e., Primary 4–6 (see, e.g., Gu et al. 2005; Rao et al. 2007; Zhang et al. 2008), and secondary school pupils' English learning strategies for Singaporeans in particular (Zhang and Goh 2006), we developed a 42-item writing strategies survey. The survey was piloted in a primary school with a similar proportion of students of different ethnic backgrounds, though we focused only on the Chinese-English bilingual students in this report (see Gong et al. 2011, for findings and other details). Statistical procedures for item reduction resulted in a final version of 40 items. An internal reliability test on the survey items shows that the alpha values for the strategy survey is greater than 0.9 (the benchmark value for good design is 0.8) (Cronbach 1951; Glass and Hopkins 1996; see also Aryadoust 2012). So we took the cut-off statistics as strong indication that the survey obtained a high level of internal consistency or reliability.

This 40-item, 5-point Likert scale writing strategy survey (Appendix B) was used for collecting data about students' strategy awareness when writing in English and Chinese for the main study, which is what we report on in this chapter. All 40 items were statements concerning what the student writer does in the writing process (e.g., item 18, 'When writing an English composition, I use details to support/elaborate on the main ideas' and item 37, 'I read my teacher's corrections and comments carefully and try to learn from them'). Under each statement, there were five options (1, 2, 3, 4 and 5) with 1 representing 'Never', 2 for 'Occasionally', 3 for 'Sometimes', 4 for 'Usually' and 5 for 'Always'. The students were asked to read each statement, think about their own experiences, then pick the number which best represented what they did when writing.

The survey was preceded with a demographic questionnaire (Appendix A) for collecting students' personal information (age, gender, home languages, interest in writing, preferred language(s) for writing, effort in out-of-school reading and writing). The questionnaire was administered to the participants only once, prior to the intervention, and the writing strategy survey was administered twice, before the intervention as a pretest and again after the completion of the intervention programme.

### **English and Chinese Writing Scores**

Student writing samples and composition scores were collected from both the intervention and comparison groups before the intervention and three months' later when the intervention concluded. We used a composition topic, 'An extraordinary experience in my life', in the pretest for both the English and the Chinese writing tasks. The students were required to complete their composition within two periods of classroom time, which was about an hour in duration in total. We used a similar writing topic, 'My trip to a tourist destination', to gauge students' progress in writing in English and in Chinese at the end of the intervention programme. The genre or text type expected of the students was that of a recount.

### **Intervention Programme**

The curriculum package mentioned above was developed by the research team together with the teachers of English and Chinese involved in the intervention group. It was used in the intervention lessons to implement the SBI in English and Chinese writing alongside the regular textbooks and teaching materials the two schools used (details available in Zhang et al. 2012). It reflected principles of SBI because it integrated writing strategies into the English and Chinese curricula (see Chamot et al. 1999). The whole writing intervention lasted for 10 teaching weeks. Although the teachers were encouraged to incorporate SBI throughout their lessons, we found out from our observations and research logs that about 2 hours each week was spent on SBI lessons. The intervention programme was completed within one semester. The teaching process was characterised with discussions between the teacher and the students and among the students in the intervention classes. Typically, teachers followed Chamot et al.'s (1999) 5-step pedagogical cycle throughout all the ten sessions, incorporating SBI into the regular English and Chinese writing lessons.

### **Writing Strategies Taught**

In the SBI intervention programme, teachers implemented SBI with reference to the curriculum package provided. Based on our review of the literature, especially Harris et al.'s (2008, 2010) recommendations, we came up with a list of writing



strategies for students to learn to use while they learned to write in the two languages. Table 7.3 is a snapshot of these strategies.

### Training Teachers

In order to implement the SBI programme successfully, we conducted a one-day training and briefing workshop for all the teachers involved in the intervention group on the two school premises. As mentioned above, teachers of English and teachers of Chinese often work with different syllabi, different materials and different planning teams in Singapore schools. They typically work within separate English and Chinese departments in the schools. Participating teachers in the two schools where the intervention was undertaken indicated this was also their situation. Therefore, we deliberately arranged the teachers of the two languages to go through the SBI training workshop together. We conducted the one-day training and workshop separately for each school. We did it in English, as all the teachers in our intervention group were Chinese-English bilinguals themselves. However, in cases where difficulties in understanding arose, research team members, who are bilingual, adopted a code-mixing strategy, i.e., using both languages to clarify any question raised.

In the workshop, we distributed the SBI English and Chinese writing package to the participating teachers and discussed each of the lessons with them. We talked about the research design with them to help them get a good understanding of how

**Table 7.3** List of writing strategies taught to students

Awareness raising	Planning	Execution	Monitoring	Revising
Talking about the text type or text organisation	Global planning	Thinking about useful text types	Checking appropriateness of organisation	Focusing on ideas
Considering target audience	Local planning (including language use)	Thinking of specific language features	Checking coherence in ideas	Focusing on text organisation
Thinking about the purpose of text	Brainstorming in groups	Thinking of effective writing/samples	Checking cohesion in language use (use of connectives, e.g., first, second, lastly, etc.)	Focusing on voice, choice of words and sentence-level fluency
Using right tenses	Using graphic organisers	Thinking of using right tenses	Finalising	Checking grammar
Liking ideas to voice, word choice	Sharing ideas across groups	Thinking of word choice to bring out the writer's voice	Checking the appropriateness in word choice, etc.	Seeking comments from peers (on ideas)

the study would be implemented. We also discussed the pedagogical principles for SBI, the genre-based English Language syllabus that guided our SBI intervention programme in teaching the two languages and one typical lesson presentation based on SBI principles. We emphasised all the above particularly for Chinese teachers' attention because the Chinese Language syllabus does not mention any writing strategies that teachers should teach in the Chinese language classroom.

## ***Data Analysis***

### **Preparing Writing Scores for Analysis**

In this study, we generated several bivariate correlation matrices to control for raters' homogeneity in English and Chinese pre- and post-test scoring. The raters who marked the Chinese and the English pre- and post-test compositions were not the same, but they were experienced school teachers with comparable teaching experiences. They were also experienced in marking the Ministry of Education's (MOE) Primary School Leaving Examination (PSLE) and held a teacher qualification (either a bachelor's degree with a diploma in education or a postgraduate diploma in education) from the National Institute of Education, the Singapore MOE's main teacher education provider.

Every English script was marked by two raters on a scale consisting of three criteria: content, language and organisation. Every Chinese script was marked by two other raters using a similar scale based on three criteria: knowledge, language and text clarity. We used the marking grids because they were widely used in schools in Singapore for marking school-based examinations. They were also used for marking high-stakes national examinations such as the Singapore-Cambridge Primary School Leaving Examination (PSLE) and the Singapore-Cambridge General Certificate in Education (GCE) Ordinary Level Examination, which were administered by the MOE. Correlation indices indicate that scores assigned by the two raters were in rather full agreement ( $p < 0.01$ ), with magnitudes greater than 0.9. In addition, correlation analysis of the English writing test marks on content, language and organisation yielded correlation indices ranging from 0.331 to .966 ( $p < 0.01$ ). The low indices (i.e.,  $< 0.70$ ) were related to different criteria—for example, content rated by rater 1 and organisation rated by rater 2—but the correlation of identical criteria was above 0.7. Next, we generated an average composite score for each test by summing the scores assigned by the two raters and dividing them by two. These average scores were used in later analyses of students' writing scores.

## Results

### *Effects of SBI on Students' Awareness of Writing Strategies*

Did SBI have an impact on bilingual students' awareness of writing strategies in the two languages when the strategies were integrated into the regular curriculum? To examine the effect of the intervention on students' awareness of writing strategies in writing in English and Chinese, we compared the writing strategy survey results which were obtained as a pre- and post-test measure for both the intervention and comparison groups.

Table 7.4 gives the results of the paired *t*-tests for the intervention group. Out of 12 *t*-tests performed, ten yielded statistically significant *t* values ( $p < 0.05, 0.01$ ) with small to medium effect sizes; that is, students made small to medium progress ( $p < 0.05$ ) in their awareness of all strategies in writing in English and Chinese except 'activating prior knowledge' and 'quality control' when writing in Chinese. This means that the intervention group made some progress in their awareness of the strategies for writing in English and Chinese after the intervention.

We also compared the comparison group's awareness of writing strategies when writing in Chinese with their writing in English. As Table 7.5 shows, although the students in the comparison group made progress in becoming aware of all English writing strategies ( $p < 0.05$ ), the effect sizes are small. Except for their awareness of

**Table 7.4** Intervention group's awareness of writing strategies when writing in Chinese and English in pre- and post-intervention ( $n = 178$ )

	Strategy clusters	Mean difference	<i>t</i>	<i>df</i>	<i>p</i>	Effect size <sup>a</sup>
Chinese writing strategies	Planning techniques	1.633	4.937	168	0.000	0.126
	Activating prior knowledge	0.136	0.370	167	0.712	0.000
	Global planning and monitoring	4.808	7.485	166	0.000	0.252
	Drafting	1.119	2.421	166	0.017	0.034
	Vocabulary strategy	0.625	2.315	167	0.022	0.031
	Quality control	0.073	.153	163	0.879	0.000
English writing strategies	Planning techniques	1.048	4.170	286	0.000	0.057
	Activating prior knowledge	0.548	1.962	287	0.050	0.013
	Global planning and monitoring	3.119	5.063	167	0.000	0.133
	Drafting	2.147	6.485	283	0.000	0.129
	Vocabulary strategy	0.406	1.985	289	0.048	0.013
	Quality control	0.823	2.473	282	0.014	0.021

Note: <sup>a</sup>Effect size was calculated as  $r^2 = t^2/t^2 + df$ ;  $r^2 = 0.01$ , small effect;  $r^2 = 0.09$ , medium effect;  $r^2 = 0.25$ , large effect

**Table 7.5** Comparison group's awareness of writing strategies when writing in Chinese and English in pre- and post-intervention ( $n = 148$ )

	Strategy clusters	Mean difference	$t$	$df$	$p$	Effect size <sup>a</sup>
Chinese writing strategies	Planning	0.836	1.302	282	0.194	0.005
	Activating prior knowledge	0.444	1.102	285	0.271	0.004
	Global planning and monitoring	0.631	1.204	283	0.230	0.005
	Drafting	2.067	2.298	283	0.022	0.018
	Vocabulary strategy	0.522	0.860	256	0.391	0.002
	Quality control	0.07	0.209	284	0.835	0.000
English writing strategies	Planning	1.312	3.465	124	0.001	0.088
	Activating prior knowledge	0.699	1.478	122	0.142	0.017
	Global planning and monitoring	1.549	2.258	121	0.026	0.040
	Drafting	2.219	4.154	122	0.000	0.123
	Vocabulary strategy	0.685	2.035	123	0.044	0.032
	Quality control	1.214	2.299	120	0.023	0.042

Note. <sup>a</sup>Effect size was calculated as  $r^2 = t^2/t^2 + df$ ;  $r^2 = 0.01$ , small effect;  $r^2 = 0.09$ , medium effect;  $r^2 = 0.25$ , large effect

the 'drafting' strategy, the comparison group did not make any sizeable progress in their awareness of other strategies for writing in Chinese.

In sum, although both the intervention and comparison groups made progress in their awareness of English writing strategies, the effect sizes of change in the comparison group were generally smaller than the effect sizes in the intervention group. In addition, the comparison group made no significant improvement in the awareness of Chinese writing strategies except for the drafting strategy, whereas the intervention group made a sizeable improvement.

### ***Effects of SBI on Score Gains in English and Chinese Writing***

Did SBI lead to writing improvement? To answer this question, we performed two rounds of  $t$ -tests on Chinese and English pretest and post-test writing component scores and composite writing scores to explore the effect of the intervention. The component scores refer to the three aspects that were used to measure student performance in English writing: content, language and organisation, and the English writing composite scores are the overall writing scores. We also performed  $t$ -tests to compare student performance in Chinese writing in three equivalent aspects in accordance with what is stated in the 2007 Chinese Language syllabus: knowledge,

language and text clarity (writers' tone), as well as Chinese writing composite scores.

Table 7.6 gives mean differences of the intervention group's Chinese and English pretest and post-test writing component scores and composite scores and *t*-test results. As the *t* values indicate, there was a statistically significant difference between the pre- and post-test English writing scores on components such as content, language and organisation ( $p < 0.01$ ) and between the pretest and the post-test English composite scores. There was also a statistically significant difference between the pre- and post-test Chinese writing scores on components such as knowledge, language and text clarity, as well as between the pretest and the post-test Chinese writing composite scores ( $p < 0.01$ ). Although the effect sizes of this intervention in SBI in English writing varied from small to medium and were large for English composite scores, the effect sizes for SBI in Chinese writing and composite scores were larger. This suggests that the use of SBI in teaching Chinese and English writing was effective, and it was particularly effective with regard to teaching Chinese writing.

Table 7.7 gives the mean differences of the Chinese and English pre- and post-test writing scores and *t*-test results of the comparison group. As indicated by the *t* values, there was no statistically significant difference between the pre- and post-test scores for content, language and organisation of English writing tests ( $p > 0.01$ ), but there was a statistically significant difference between the pre- and post-test English and Chinese composite scores, as well as scores on Chinese knowledge, language and text clarity (also known as the writer's tone). The effect sizes varied from low to high. This indicates that the comparison group did not make significant progress in English writing, either in the components or the composite scores, but the group made improvements in the targeted Chinese writing components. Relative to the progress of the intervention group, this improvement was smaller.

**Table 7.6** Effects of SBI on intervention group' Chinese writing score gains (pre- and post-test comparison,  $n = 178$ )

		Mean differences	<i>t</i>	<i>df</i>	<i>p</i>	Effect size <sup>a</sup>
English writing scores	Content	0.782	3.313	151	.001	0.067
	Language	0.500	2.851	151	.005	0.051
	Organisation	0.368	3.123	151	.002	0.060
	Composite writing score	3.019	6.364	151	.000	0.281
Chinese writing scores	Knowledge	4.373	6.111	82	.000	0.312
	Language	4.976	6.886	82	.000	0.366
	Text clarity (writer's tone)	9.590	6.544	82	.000	0.343
	Composite writing score	9.879	6.641	82	.000	0.349

Note. <sup>a</sup>Effect size was calculated as  $r^2 = t^2/t^2 + df$ ;  $r^2 = 0.01$ , small effect;  $r^2 = 0.09$ , medium effect;  $r^2 = 0.25$ , large effect

**Table 7.7** Effects of SBI on comparison group's Chinese writing score gains (pre- and post-test comparison),  $n = 148$ 

		Mean difference	$T$	$df$	$p$	Effect size <sup>a</sup>
English writing scores	Content	0.048	0.195	124	0.846	0.000
	Language	0.064	0.330	124	0.742	0.000
	Organisation	0.216	2.044	124	0.043	0.032
	Composite writing score	2.205	4.246	61	0.000	0.228
Chinese writing scores	Knowledge	4.065	4.298	61	0.000	0.232
	Language	4.387	4.533	61	0.000	0.251
	Text clarity (writer's tone)	8.452	4.464	61	0.000	0.246
	Composite writing score	7.943	6.007	123	0.000	0.226

Note: <sup>a</sup>Effect size was calculated as  $r^2 = t^2/t^2 + df$ ;  $r^2 = 0.01$ , small effect;  $r^2 = 0.09$ , medium effect;  $r^2 = 0.25$ , large effect

## Discussion

We found that the English and Chinese writing scores of participants in the intervention group improved over the time of the SBI and improved more than the comparison group in the same time period. Members of the comparison group, who were not provided with SBI, also made some progress in both English writing score (effect size=0.228) and Chinese writing score gains (effect size=0.226). We were not surprised at the comparison group's improvement, as ten weeks of teaching meant a large amount of language exposure and writing tasks that implicitly trained the students in writing. Furthermore, since the research was conducted in real schools, we were not sure whether the intervention group teachers and students indeed kept our training package away from those in the comparison group. Our speculation was that the comparison group's teachers' curiosity might have led them to occasionally chat with the intervention group teachers and students. Such speculation was confirmed by our conversations with the teachers involved in the intervention, who did mention that several comparison group teachers enquired about the teaching materials used in the intervention classes because they wanted to use them in their own classes. We assumed that those teachers might have used some of the SBI ideas in teaching the comparison groups. Such being the case, we think that we also achieved some of the purposes embedded in the training package, although it was not intended for the comparison group to use at that time.

In our opinion, the fact that the intervention group made significant score gains is illustrative of the benefits of systematic provision of SBI in teaching writing. This is because the effect sizes for the intervention group's score gains are far larger (0.281 for English and 0.343 for Chinese). Specifying writing strategies for more effective text production seems to have benefitted the students in producing better

compositions. These results suggest that the absence of a guide to teaching writing strategies in the Chinese Language syllabus was compensated for by our provision of a SBI Chinese curricular package.

It can be surmised that effective writing in whichever language shares certain similarity despite linguistic differences between them. We deliberately crafted the curriculum package for the intervention group teachers to teach bilingual writers to make use of the linguistic resources they had to optimise their learning. Such a package might have helped these students see the value of being bilingual. When writing in Chinese, these students could draw on their more developed English lexis as needed. Such a vocabulary strategy might be an example of the multiple strategies in the SBI that would cross-pollinate. SBI in the classroom also appeared to have enhanced these students' awareness of writing strategies because from our lesson observation and field notes we find that dialogic discussion, which allowed students and teachers to have equal opportunities within the learners' "zone of proximal development" (Vygotsky 1978), characterised all the lessons as designed. We think that SBI provided the learners with necessary scaffolding, helping them improve their writing performance. The CALLA principles (Chamot et al. 1999) promote scaffolded instruction. It is the teacher who takes the responsibility at the earlier stages of SBI, and, gradually, the teacher's responsibility is transferred to the students. This might be why the intervention group achieved score gains in both English and Chinese writing more significantly, because through the dialogic classroom processes introduced through SBI, students became more confident and therefore were offered options to actively engage in meaningful language learning and writing activities.

The results above are in line with most of the findings reported in the literature. In first language learning contexts, it is shown that SBI can help learners develop high degrees of self-awareness and efficacy through teachers helping them take active control of their learning (Boekaerts and Cascallar 2006; Harris et al. 2010; Pressley et al. 1992; Schunk and Zimmerman 2007). This is because SBI involves learners' internal monitoring and controlling of their learning processes (Anderson 2012; Macaro and Cohen 2007; Oxford 2011; Rubin et al. 2007; Zhang 2010b). In second language learning contexts, researchers also show that learner training in the English as a second language (ESL) or English as a foreign language (EFL) curriculum allows learners to have control over their own cognition (Cohen 1998; Zhang 2008). Effective and competent teachers do so by enabling learners to coordinate their planning, organising and evaluating of the learning processes, which are part and parcel of SBI. Parr and Limbrick (2010) and Glasswell et al. (2003) found that the success in writing depends a great deal on effective teachers of writing (see also Goh et al. 2005; McNaughton and Lai 2009). Indeed, we found that teachers' readiness to participate in the research project as codevelopers and teachers of the curriculum materials helped them become stronger practitioners. SBI and the repertoire of teacher knowledge about and expertise in language teaching, some of which were gained through our training workshop and training package, appeared to be working collectively towards effective learning and teaching.

## Conclusion and Implication

The research was designed to implement SBI for the purposes of building student capacity in bilingual/biliteracy learning. Understanding the linguistic differences between the two languages, English and Chinese (see, e.g., Ehrich et al. 2013; Odlin 1989; Ong and Zhang 2010b; Jiang and Cohen 2012; Zhang 2013), and the relative difficulty in learning Chinese in Singapore, we implemented SBI writing instruction for raising students' awareness of writing strategies and improving their performance in writing in English and Chinese. Results suggest that the use of SBI not only raised students' awareness of writing strategies but also improved their English and Chinese writing scores. Thus, we can conclude that SBI was a useful dimension to the writing curriculum in the two schools involved in this study.

Despite its relatively small sample size, the study might have some implications for bilingual/biliteracy teaching and learning. We maintain that SBI in biliteracy teaching and learning is a mediator between personal and contextual characteristics and actual performance. This is a useful angle from which the teaching of writing in either language can be better understood. It is not only individuals' cultural, demographic or personality characteristics that influence achievement and learning of biliteracy directly nor just the contextual characteristics of the classroom environment that shape achievement. Individuals' self-regulation of their cognition, motivation and behaviour that mediate the relations between the person, context and eventual achievement also plays an important role. With the help of the linguistically and pedagogically stronger person, i.e., the teacher, who is the knower of local practice but meanwhile aspires to understand how the world of teaching should look like (Zhang and Ben Said 2014), students can be assisted to make more steady improvement in biliteracy learning with pedagogical intervention such as SBI.

If teachers of biliteracy intend to enhance the effectiveness of their teaching and their students' learning, they can do so through well-organised lessons, of which SBI with ample opportunities of student-teacher interaction in the process should be a salient feature. Also worthy of mentioning is that, although space does not permit us to go into any extensive discussion of the utility of teacher-researcher collaborations and collaborations such as those involving the two groups of teachers of English and Chinese, we realised that in the implementation process the participating teachers subconsciously found themselves deepening their understanding of biliteracy learning. This was also the case while they were going through the training workshop and using the codeveloped teaching materials (i.e., the SBI curricular package). Based on our observation, we think that it should be our future direction to foster the bond between the two groups of language teachers for mutual professional growth as well as for more effectively and efficiently raising the biliteracy standards in Singapore schools.

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## **Appendices**

### ***Appendix A***

#### **Questionnaire About Yourself**

1 School:

2 Name:

3 Class:

4 IC Number

5 Age

6 How do you rate your interest in writing in English?

High

Fair

Low

7 How do you rate your English writing ability?

Very Good

Fair

Poor

8 Do you write in English after school? (If your answer is YES, please answer questions 9 and 10 as well.)

Yes

No

9 How much time do you spend on writing in English after school (excluding your homework)?

1 h & above  
per day

30 mins to  
1 h per day

Around 30  
mins per day

Below 20  
mins per day

10 What do you write in English after school?

11 What is the language you use most often at home? If you use two or three languages at home, list them according to the frequency they are used, with the most frequent used language listed first (e.g. Chinese Mandarin, English, Hokkien).

## Appendix B

### Survey on Writing Strategies

**Directions:** Listed below are statements about what you may or may not do when you **write in English**. Under each statement, there are five answers (1, 2, 3, 4 and 5). The numbers mean the following:

- 1=Never** (meaning “**I almost never do this**”)  
**2=Occasionally** (meaning “**I do this around 25% of the time**”)  
**3=Sometimes** (meaning “**I do this around 50% of the time**”)  
**4=Usually** (meaning “**I do this around 75% of the time**”)  
**5=Always** (meaning “**I almost always do this**”)

After reading each statement, think about your own experience and then **circle** a number (1, 2, 3, 4 **or** 5) which best represents what you do and **shade** the corresponding number **on the Answer Sheet**.

**Here is an example:**

If you read a statement like the following:

I do warming-up exercises before I do sports.

- 1=Never  
 2=Occasionally  
 3=Sometimes  
 4=Usually  
 5=Always

Then you think about how often you do warming up when you do sports. If you never do it, you should circle the number  and **shade it on the Answer Sheet**.



- 
1. I read good English compositions (model compositions) in order to write well.
  2. Before I write an English composition, I tell myself to enjoy writing.
  3. Before I write an English composition, I tell myself not to worry.
  4. Before I write an English composition, I make sure that I understand what I have to do.
  5. Before I write an English composition, I think about the purpose of writing it.
  6. Before I write an English composition, I read about the topic.
  7. Before I write an English composition, I think about who will read it.
  8. Before I write an English composition, I think about what ideas to write about by listing them.
  9. Before I write an English composition, I think about what words, phrases and sentences to use.
  10. Before I write an English composition, I recall a similar text type I read before and try to follow it.
-

- 
11. Before I write an English composition, I write out an outline for it.
  12. Before I write an English composition, I use graphic organisers (such as mind maps) to help me plan my writing.
  13. Before I write an English composition, I think about how to write it.
  14. Before I write an English composition, I select what I want to focus on.
  15. When writing an English composition, I put down my ideas first and improve the language later.
  16. When writing an English composition, I use words, phrases or sentences that I have read before.
  17. When writing an English composition, I use ideas that I read before.
  18. When writing an English composition, I use details to support/elaborate on the main ideas.
  19. When writing an English composition, I make sure that my sentences are linked to one another.
  20. When writing an English composition, I make sure that my paragraphs are well linked.
  21. When I do not know a word or phrase in writing an English composition, I stop writing and look it up in a dictionary.
  22. When I cannot think of an English word when writing a composition, I paraphrase it.
  23. When I do not know the right words to use when writing an English composition, I invent new words.
  24. After finishing my composition, I make sure that it meets the expectation of the writing task.
  25. After finishing my composition, I make sure that it has a beginning, the main body and an ending.
  26. When I check my English composition, I make sure that the grammar is correct.
  27. When I read my composition, I think about whether my readers will like it.
  28. When I check my English composition, I change the ideas in it.
  29. When I revise my English composition, I reorganise the ideas in it.
  30. When I check my English composition, I read it aloud to make sure that it reads well.
  31. When I revise my English composition, I make sure that the spelling and punctuation are correct.
  32. When I revise my English composition, I change words or phrases.
  33. When I read my English composition, I think about whether my reader can understand it.
  34. I think about the strengths and weaknesses of my composition after I have written it.
  35. I ask my friends for comments after I have written my composition.
  36. I reward myself (e.g. eating my favourite food or playing computer games) when I have completed an English composition.
  37. I read my teacher's corrections and comments carefully and try to learn from them.
  38. I ask myself whether my writing ability is improving.
  39. I ask myself whether my writing quality is getting better.
  40. I look out for opportunities to write in English (e.g. keeping journals/diaries, blogs, book reviews, etc.) to improve my writing ability.
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## References

- Afflerbach, P., Pearson, P. D., & Paris, S. G. (2008). Clarifying differences between reading skills and reading strategies. *Reading Teacher*, *61*, 364–373. doi:[10.1598/RT.61.5.1](https://doi.org/10.1598/RT.61.5.1).
- Anderson, N. J. (2012). Metacognition: Awareness in language learning. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and pedagogy* (pp. 169–187). Basingstoke: Palgrave.
- Aryadoust, V. (2012). Evaluating the psychometric quality of an ESL placement test of writing: A many-facets Rasch study. *Linguistics Journal*, *6*, 8–33.
- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale: Erlbaum.
- Block, C. C., & Duffy, G. G. (2008). Research on teaching comprehension: Where we've been and where we're going. In C. C. Block & S. R. Paris (Eds.), *Comprehension instruction: Research-based best practices* (2nd ed., pp. 19–37). New York: Guilford.
- Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review*, *18*, 199–210. doi:[10.1007/s10648-006-9013-4](https://doi.org/10.1007/s10648-006-9013-4).
- Chamot, A. U., Barnhardt, S., El-Dinary, P. B., & Robbins, J. (1999). *The learning strategies handbook*. White Plains: Pearson Education.
- Cohen, A. D. (1998). *Strategies in learning and using a second language*. White Plains: Longman.
- Cohen, A. D., & Dörnyei, Z. (2002). Focus on the language learner: Motivation, styles, and strategies. In N. Schmitt (Ed.), *An introduction to applied linguistics* (pp. 170–190). London: Arnold.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*, 297–334. doi:[10.1007/BF02310555](https://doi.org/10.1007/BF02310555).
- Derwianka, B. (1996). *Exploring the writing of genres*. London: UK Reading Association.
- Ehrich, J. F., Zhang, L. J., Mu, J. C., & Ehrich, L. C. (2013). Are alphabetic-language derived models of L2 reading relevant to L1 logographic background readers? *Language Awareness*, *22*, 39–55. doi:[10.1080/09658416.2011.644796](https://doi.org/10.1080/09658416.2011.644796).
- Flower, L. S., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication*, *32*, 365–387. doi:[10.2307/356600](https://doi.org/10.2307/356600).
- Glass, G. V., & Hopkins, K. D. (1996). *Statistical methods in education and psychology* (3rd ed.). Boston: Allyn and Bacon.
- Glasswell, K., Parr, J., & McNaughton, S. (2003). Working with William: Teaching, learning, and the joint construction of a struggling writer. *The Reading Teacher*, *56*, 484–500.
- Goh, C. C. M., Zhang, L. J., Ng, C. H., & Koh, G. H. (2005). *Knowledge, beliefs and syllabus implementation: A study of English language teachers in Singapore*. Singapore: National Institute of Education, Nanyang Technological University.
- Gong, W., Zhang, D. L., Zhang, L. J., Kiss, T., & Ang-Tay, M. Y. (2011). Socio-psychological factors and strategy use in Singaporean schoolchildren's English literacy learning. *Reflections on English Language Teaching*, *10*, 1–24.
- Gu, P. Y., Hu, G., & Zhang, L. J. (2005). Investigating language learner strategies among lower primary school pupils in Singapore. *Language and Education*, *19*, 281–303. doi:[10.1080/09500780508668682](https://doi.org/10.1080/09500780508668682).
- Halliday, M. A. K. (1985). *Language, context, and text: Aspects of language in a social-semiotic perspective*. Geelong: Deakin University.
- Harris, K. R., Graham, S., Mason, L. H., & Friedlander, B. (2008). *Powerful writing strategies for all students*. Baltimore: Paul H. Brookes.
- Harris, K. R., Santangelo, T., & Graham, S. (2010). Metacognition and strategies instruction in writing. In H. S. Waters & W. Schneider (Eds.), *Metacognition, strategy use, and instruction* (pp. 226–256). New York: The Guilford Press.
- Jiang, X., & Cohen, A. D. (2012). A critical review of research on strategies in learning Chinese as both a second and foreign language. *Studies in Second Language Learning and Teaching*, *2*, 9–43.

- Kellogg, R. T. (1996). A model of working memory in writing. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences and applications* (pp. 57–72). Mahwah: Erlbaum.
- Macaro, E. (2006). Strategies for language learning and for language use: Revising the theoretical framework. *Modern Language Journal*, *90*, 320–337. doi:10.1111/j.1540-4781.2006.00425.x.
- Macaro, E., & Cohen, A. D. (2007). LLS and the future: Resolving the issues. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies: Thirty years of research and practice* (pp. 275–284). Oxford: Oxford University Press.
- McNaughton, S., & Lai, M. (2009). A model of school change for culturally and linguistically diverse students in New Zealand: A summary and evidence from systematic replication. *Teaching Education*, *20*, 55–75. doi:10.1080/10476210802681733.
- MOE. (2001). *English language syllabus*. Singapore: Author.
- MOE. (2007). *2007 Xiaoxue Huawen kecheng biaozhun* [The 2007 syllabus for Chinese Language, Primary]. Singapore: Author.
- MOE. (2010). English Language syllabus 2010: Primary & secondary (Express/Normal [Academic]). Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/english-language-and-literature/files/english-primary-secondary-express-normal-academic.pdf>
- Mullis, I. V. S., Martin, M. O., Kennedy, A. M., & Foy, P. (2007). *PIRLS 2006 international report*. Boston: TIMSS & PIRLS International Study Center, Boston College.
- Mullis, I. V. S., Martin, M. O., Foy, P., & Drucker, K. T. (2012). *PIRLS 2011 international results in reading*. Boston: TIMSS & PIRLS International Study Center, Boston College.
- O'Malle, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. New York: Cambridge University Press.
- Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. New York: Cambridge University Press.
- OECD. (2010). *PISA 2009 results: Executive summary*. Paris: Organization for Economic Cooperation and Development.
- Ong, J., & Zhang, L. J. (2010a). Effects of task complexity on the fluency and lexical complexity in EFL students' argumentative writing. *Journal of Second Language Writing*, *19*, 218–233. doi:10.1016/j.jslw.2010.10.003.
- Ong, K., & Zhang, L. J. (2010b). Metalinguistic filters within the bilingual language faculty: A study of young English-Chinese bilinguals. *Journal of Psycholinguistic Research*, *39*, 243–272. doi:10.1007/s10936-009-9137-z.
- Ong, J., & Zhang, L. J. (2013). Effects of the manipulation of cognitive processes on EFL writers' text quality. *TESOL Quarterly*, *47*, 375–398. doi:10.1002/tesq.55.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- Oxford, R. L. (2011). *Teaching and researching language learning strategies*. White Plains: Pearson Education.
- Parr, J., & Limbrick, L. (2010). Contextualising practice: Hallmarks of effective teachers of writing. *Teaching and Teacher Education*, *26*, 583–590. doi:10.1016/j.tate.2009.09.004.
- Pressley, M., El-Dinary, P. B., Gaskins, I., Schuder, T., Bergman, J. L., Almasi, J., & Brown, R. (1992). Beyond direct explanation: Transactional instruction of reading comprehension strategies. *Elementary School Journal*, *92*, 513–555. doi:10.1086/461705.
- Rao, Z., Gu, P. Y., Zhang, L. J., & Hu, G. (2007). Reading strategies and approaches to learning of bilingual primary school pupils. *Language Awareness*, *16*, 243–262. doi:10.2167/la423.0.
- Rubin, J., Chamot, A. U., Harris, V., & Anderson, N. J. (2007). Intervening in the use of strategies. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies: Thirty years of research and practice* (pp. 141–160). Oxford: Oxford University Press.
- Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading and Writing Quarterly*, *23*, 7–25.

- Tan, C., & Ng, P. T. (2011). Functional differentiation: A critique of the bilingual policy in Singapore. *Journal of Asian Public Policy*, 4, 331–341. doi:[10.1080/17516234.2011.630227](https://doi.org/10.1080/17516234.2011.630227).
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness*, 10, 268–288. doi:[10.1080/09658410108667039](https://doi.org/10.1080/09658410108667039).
- Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: Exploring pathways to learner development in the English as a second language (ESL) classroom. *Instructional Science*, 36, 89–116. doi:[10.1007/s11251-007-9025-6](https://doi.org/10.1007/s11251-007-9025-6).
- Zhang, L. J. (2010a). A dynamic metacognitive systems account of Chinese university students' knowledge about EFL reading. *TESOL Quarterly*, 44, 320–353. doi:[10.5054/tq.2010.223352](https://doi.org/10.5054/tq.2010.223352).
- Zhang, L. J. (2010b). Negotiating language, literacy and identity: A sociocultural perspective on children's language learning strategies in a multilingual ESL classroom in Singapore. *Applied Linguistics Review*, 1, 247–270. doi:[10.1515/9783110222654.247](https://doi.org/10.1515/9783110222654.247).
- Zhang, L. J. (2013). Second language writing as and for second language learning. *Journal of Second Language Writing*, 22, 446–477. doi:[10.1016/j.jslw.2013.08.010](https://doi.org/10.1016/j.jslw.2013.08.010).
- Zhang, L. J., & Ben Said, S. (2014). Toward a global understanding of local initiatives in language teaching and language teacher education: Global rules, local roles. In S. Ben Said & L. J. Zhang (Eds.), *Language teachers and teaching: Global perspectives, local initiatives* (pp. xix–xxx). New York: Routledge Taylor & Francis.
- Zhang, D. L., & Goh, C. (2006). Strategy knowledge and perceived strategy use: Singaporean students' awareness of listening and speaking strategies. *Language Awareness*, 15, 199–218. doi:[10.2167/la342.0](https://doi.org/10.2167/la342.0).
- Zhang, L. J., Gu, P. Y., & Hu, G. W. (2008). A cognitive perspective on Singaporean primary school pupils' use of reading strategies in learning to read in English. *British Journal of Educational Psychology*, 78, 245–271. doi:[10.1348/000709907X218179](https://doi.org/10.1348/000709907X218179).
- Zhang, L. J., Zhang, D. L., Zeng, Y. J., Gong, W. G., Ang-Tay, M. Y., Kiss, T., Aw, G. P., Chin, C. K., & Choong, K. W. (2012). *Enhancing Singaporean students' efficacy, engagement and self-regulation for more effective bilingual/biliteracy learning*. Singapore: Office of Education Research, National Institute of Education, Nanyang Technological University.

# Chapter 8

## Commentary on ‘Competencies’

Andy Kirkpatrick

### Introduction

In reading the editors’ introduction and these interesting and informative accounts of how skills and competencies are learned and taught under the umbrella of the Singaporean quadrilingual language policy in which everyone is to learn English and their respective mother tongue, it is interesting to compare the Singaporean policy with the trilingual–biliterate language education policy of Hong Kong, where the government’s aim is to ensure its citizens are trilingual in Cantonese, *Putonghua* Mandarin and English and biliterate in Chinese and English.

### International Comparisons

The first point of difference is the definition and treatment of mother tongues. In Hong Kong, Cantonese is promoted and is the major medium of instruction in most government primary schools. It is also the real mother tongue of the vast majority of the population, in that it is their first language. This contrasts sharply with the situation in Singapore, where mother tongue is determined, uniquely, I believe, by ethnicity, not language. Thus, ethnic Chinese are ascribed *Putonghua* (or *Huayu*, as it is termed in Singapore) as their mother tongue, no matter what (Chinese) language their mothers might actually speak. The second point of difference is that Chinese languages other than *Putonghua* are promoted in Hong Kong – hence the role of Cantonese as the medium of instruction in primary schools – while their use is discouraged, if not actually proscribed, in Singapore.

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To an outsider, the proscription of Chinese languages other than *Huayu* seems strange, especially given that the aim of insisting that Singaporeans learn their respective mother tongues is to keep them in touch with their Asian identities and cultural roots, with English as the language to ensure Singaporeans not only keep up with but actively participate in modernisation and globalisation. One might argue that keeping in touch with Asian identities and values might be more effectively achieved in the case of the ethnically Chinese by allowing them the use of their actual mother tongues. Forcing people away from the use of their real mother tongues could be predicted to undermine their sense of identity and to sever their cultural roots. As it happens, it may be that the development of a new variety of English – Singaporean English – is, in its colloquial, vernacular form, fulfilling the identity function. The figures reported in this volume indicate that an increasing number of Singaporean children are reporting that English is the main language of the home, although it must be stressed that the majority also indicate that English is not the sole language spoken in the home. Ironically, it may also be that *Huayu* will be more useful in modernisation and globalisation as China's influence on the region and world continues to increase. One might therefore argue that Hong Kong's trilingual policy might prove more effective, with Cantonese providing a sense of local identity, *Putonghua* providing national belonging along with access to the swiftly developing areas of Chinese influence and English allowing participation in globalisation.

A second point of difference is the language each country or territory has chosen to act as the main medium of instruction. In Singapore, English is the medium of instruction for all content subjects from Primary 1. The respective mother tongues – *Huayu*, Malay and Tamil – are taught as subjects, for some 3 h per week. As the chapters in this book illustrate, this has led to concern, especially, but not exclusively, in connection with the teaching of *Huayu*, as children are finding it difficult to achieve high levels of proficiency in their respective mother tongues. As Zhang et al. (this volume) point out, one problem arose from setting benchmarks and targets which were too ambitious. This, coupled with the teaching of Chinese as though it was a first language using pedagogical techniques such as memorisation and *moxie*, led to disappointing levels of achievement. As a consequence of this, a new Chinese syllabus was designed for those ethnic Chinese whose home language was either English or a combination of English and Chinese. Suggestions for changes in the pedagogy used for the teaching of Chinese are also made in the Sun and Curdt-Christiansen chapter, where they show how important training in morphological awareness is for promoting reading and comprehension skills. Their study offers strong evidence for the value of following the method adopted in the teaching of English and introducing morphological awareness training in the teaching of Chinese (see also Zhao and Shang, this volume; Zhang and Li, this volume).

Singapore's language policy is often held up to be a success in that English is spoken fluently by most Singaporeans. While this is undoubtedly the case, the study by Shegar and Ward (this volume) reminds us how important socioeconomic status remains in educational success. The findings of their single-school case study illus-



trate that the majority of the school’s Chinese, Malay and Indian Singaporean students come from low socioeconomic backgrounds and from homes where English is not the dominant language. As a result “a fairly large cohort of students entering Primary 1 are not decoding and comprehending texts at age appropriate levels” (p. 79). The authors recommend therefore that schools offer such students extended language support, extended in the sense that this support is offered throughout primary school, not simply while the students are in Primary 1. (See Vaish, this volume, for one type of language support that is offered.)

Hong Kong’s medium of instruction policy has been the cause of much controversy over many decades. Cantonese remains the medium of instruction in most government primary schools, although there is increasing pressure for *Putonghua* to become the medium for some subjects, including Chinese itself. A recent case study of a Hong Kong primary school (Wang Lixun and Kirkpatrick 2012) showed how one school is combining the three languages in complementary ways throughout primary school. The authors conclude with a proposal for trilingual education which basically calls for Cantonese at the early stages of primary, with *Putonghua* gradually becoming more used towards the later years of primary. English is taught as a subject and as the medium of instruction in selected subjects such as physical education.

Even though Hong Kong’s schools are trilingual sites, the official policy is that only one language should be used at a time. This means that the only language used in English classes is ruled to be English. This includes content subjects which are taught in English in many – and in an increasing number of – secondary schools. The languages are to be kept separate. The reality is somewhat different as many teachers use Cantonese in the English classroom, but feel guilty for so doing, as well they might, as they can be disciplined for using Cantonese or *Putonghua* in English lessons. By the same token, only Chinese is to be used in Chinese lessons. The linguistic benchmarks set for achievement in English and *Putonghua* also treat the languages completely separately, in that they are based on the language of monolingual speakers of both languages. Thus, the English target for Hong Kong’s school children is to sound like native speakers of English (using standard British English as a model) and the *Putonghua* target is an idealised monolingual speaker of the language. A similar problem is recorded in the study conducted by Zhang et al. where the bilingual benchmarks set for the children are reported as being too high. In both Hong Kong and Singapore, there seems to be official hesitation or doubt about applying multilingual benchmarks to multilingual children. But, as García has argued, a bilingual education should not use monolingual standards and that “we must avoid the inequities of comparing bilingual children to a monolingual child in one of the languages” (2009, p. 386).

As the studies reported here illustrate, there is immense benefit to be gained from encouraging teachers and students to use the linguistic resources available to them in learning and teaching languages. Sun and Curdt-Christiansen’s study (this volume), in concluding that “morphological awareness could be transferred across language in children who are learning to read in English and Chinese concurrently” (p. 94), supports Cummins theory (2000) of a common underlying proficiency

through which academic language proficiency and cognitive ability can be transferred across languages.

Zhang et al. (this volume) conclude that teaching bilingual writers to make use of their linguistic resources – for example, that when writing Chinese, they can be encouraged to “resort to English for equivalent lexis” (p. 119) – is useful and effective. They also point out that involving both the Chinese and the English teachers is important and that the ties between these two groups of teachers need to be fostered.

The importance of a multilingual pedagogy and the need for Chinese and English teachers to confer are important lessons from these chapters. In the Hong Kong context, it is not unusual to observe a Chinese class where the children are studying Tang poetry and then move to an English class where the topic is “Giving Directions to Foreigners”. Apart from being stultifyingly dull and offering little cognitive challenge, these English classes ignore the potential advantages of using the content taught in Chinese class to teach English. If, for example, the English teacher could bring the content of the Chinese classroom into the English classroom, not only would the children have some familiarity with the content but also have an inherent interest in it. In the case of Tang poetry, for example, children could be asked to complete a number of tasks including translating the poem into English and identifying culturally specific concepts and how these might be explained in English. Teaching children to become bilingual is facilitated by teaching bilingually (e.g., Littlewood and Yu 2009; Turnbull and Dailey-O’Cain 2009). By the same token, thought could be given to the introduction of English content class subject matter to the Chinese language classrooms in Singapore. This does not mean that Chinese should be taught entirely through the medium of English or that English should be taught through the medium of Chinese. In the case of teaching Chinese, however, there is no reason why English cannot be used, as long as the use of English is designed to help the students learn Chinese (Wang and Kirkpatrick 2013). Guidelines for the use of Cantonese in the Hong Kong English classroom show how the L1 can be used for a number of reasons including making content and input more comprehensible, providing translations for complex concepts and grammar, making cross-linguistic comparisons and languaging (Swain 2013), whereby, for example, students may use the L1 while working in groups on a project to be delivered, either orally or in written form, in the L2 (Swain et al. 2011).

In conclusion, these important studies provide further evidence of the importance of language teachers working in bilingual and multilingual environments to work together and to work with teachers of content subjects. Competencies associated with bilingualism are best gained in bilingual settings where the respective languages can be used to facilitate their mutual acquisition. In today’s Singapore, the current emphasis may be too heavily upon English at the expense of the mother tongues. Research of the type included in this volume gives us valuable guidance in understanding the ways in which languages can be combined in language education to create successful bilinguals and the potential dangers of separating them and treating each as a discrete subject.

## References

- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. Clevedon: Multilingual Matters.
- García, O. (2009). *Bilingual education in the 21st century: A global perspective*. Malden: Wiley-Blackwell.
- Littlewood, W., & Yu, B. (2009). First language and target language in the foreign language classroom. *Language Teacher*, 42, 1–14. doi:[10.1017/S0261444809990310](https://doi.org/10.1017/S0261444809990310).
- Swain, M. (2013). Cognitive and affective enhancement among older adults: The role of language. *The Australian Review of Applied Linguistics*, 36(1), 4–19.
- Swain, M., Kirkpatrick, A., & Cummins, J. (2011). *How to have a guilt-free life using Cantonese in the English class: A handbook of the English language teacher in Hong Kong*. Hong Kong: Institute of Education.
- Turnbull, M., & Dailey-O'Cain, J. (Eds.). (2009). *First language use in second and foreign language learning*. Bristol: Multilingual Matters.
- Wang, D., & Kirkpatrick, A. (2012). Code choice in the Chinese as a foreign language classroom. *Journal of Multilingual Education*, 2(3). doi:[10.1186/2191-5059-2-3](https://doi.org/10.1186/2191-5059-2-3).
- Wang, L., & Kirkpatrick, A. (2013). Trilingual education in Hong Kong primary schools: A case study. *International Journal of Bilingual Education and Bilingualism*, 16(1), 100–116. doi:[10.1080/13670050.2012.689479](https://doi.org/10.1080/13670050.2012.689479).

# **Part IV**

## **Practices**

# Chapter 9

## Student Engagement in Reading

Viniti Vaish

### Introduction

My interest in student engagement was piqued by the impression most people have that students in remedial programmes tend to be the ones with not only low grades but also low levels of motivation and engagement. However, my research in Singapore's Learning Support Programme, a remedial reading programme for children in Primary 1 and 2, revealed quite the opposite: students are at least moderately engaged and in some cases show visible excitement to be learning how to read. This chapter is about students' level of engagement in a pull-out reading programme and the interactional patterns that are linked with high, moderate and low student engagement. In this chapter 'interactional patterns' refer to discourse features in teacher and student talk.

### *Background of Research*

Launched in 1992, Singapore's Learning Support Programme (LSP) is a nationwide early intervention programme in all primary schools. Singapore has a quadrilingual education policy in which English is the medium of instruction and three 'mother tongue' languages are also taught as required subjects. (See Silver and Bokhorst-Heng, this volume, for an overview.) Children who participate in the LSP are identified on the basis of a screening test created by Singapore's Ministry of Education, administered as soon as they enter primary school. At the time they enter school, the Singapore Word Reading Test (SWRT) is administered, also created by Singapore's

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Ministry of Education, which determines the ‘reading age’ of the child (Yang 2004). For instance, for a 5-year-old with weak reading skills, the results of the SWRT could be that his/her reading age is that of a 3-year-old.

The LSP is divided into Tiers 1, 2 and 3 which are developmental: children enter in Tier 1 and exit the programme after Tier 3. Tier 1 focuses on teaching basic skills in phonics and phonemic awareness, while Tier 3 has a whole language approach (Vaish 2012). Those who teach in the LSP are called ‘Learning Support Coordinators’ and receive training from Singapore’s Ministry of Education for 3–4 weeks in teaching reading skills. The Learning Support Coordinators are trained teachers and these 3–4 weeks are in addition to the preservice training they have already received.

The purpose of this chapter is to explore the nature of student engagement in classes conducted as part of the LSP. Through analysis of 19 h of video, I document the types of interactional patterns that engaged young learners in this programme. Through an analysis of quantitative and qualitative data, I discuss what a highly engaged class in reading looks like for the LSP.

## **Student Engagement and Reading**

Student engagement in reading has been measured on the basis of a variety of dimensions. These include cognitive, motivational and behavioural characteristics of students. Observations of teachers’ practices can also provide data about student engagement. Methodological approaches to measuring student engagement in reading are eclectic with diversity rather than consistency in the way that student engagement in reading is described and measured. Wigfield et al. (2008) found a strong correlation between engaged reading and reading comprehension: “Highly engaged readers are very strategic, using such comprehension strategies as questioning and summarizing to gain meaning from text. Likewise, highly engaged readers are internally motivated to read, while reading frequently and deeply” (p. 443).

### ***Measuring Student Engagement***

In their analysis of engagement, Wigfield et al. (2008) developed an eight-item index, the Reading Engagement Index (REI). According to this index, an engaged reader is assumed to be behaviourally active (e.g., reading frequently), internally motivated (e.g., liking to read) and cognitively active (e.g., uses strategies in reading). The response format for these items is 1 = not true to 4 = very true. The REI addresses the following characteristics for each student:

1. Often reads independently
2. Reads favourite topics and authors
3. Is easily distracted in self-selected reading

4. Works hard in reading
5. Is a confident reader
6. Uses comprehension strategies well
7. Thinks deeply about the content of texts
8. Enjoys discussing books with peers

Taylor et al. (2003) focused on cognitive engagement and teacher instructional style. They found that teaching practices in which teachers ask high-level questions (HLQs) regarding the text resulted in engaged readers in elementary school. These HLQs tend to be about making connections with prior knowledge, thematic elements of the text and interpreting character's motives. In contrast teachers who ask mainly lower-level questions (LLQs), which are about detail, tend to have disengaged readers.

Nystrand and Gamoran (1990) defined and analysed student engagement "as a cognitive phenomenon essentially having to do with the extent to which students are mentally involved with the issues and problems of academic study. Hence, it may be considered in terms of sustained mental concentration, focus, and habits of thoughtfulness..." (p. 22). They identified two types of student engagement: procedural and substantive. The former is superficial engagement that consists of students answering the teacher in Whole Class Elicitation through short phrases or single words. On the other hand, substantive engagement is manifested through sustained and probing conversations between a teacher and one student in which the teacher uses strategies like uptake to co-construct meaning and knowledge with the student. Uptake, according to Nystrand and Gamoran (1990), is a discourse feature of classroom talk in which the teacher uses utterances from a student to elaborate, clarify and/or co-construct meaning.

### ***Teacher Characteristics and Student Engagement***

Other scholars link teacher characteristics, student outcomes and engagement. For example, Pressley et al. (1998) identified engaged classrooms as those in which nearly all the students were productively reading and writing most of the time. At the end of 1 year of literacy instruction, these students were writing long compositions, often several pages in length, which included capitalization and punctuation, correct spelling of high-frequency words and imaginative spellings of less frequent words. These students were also reading books beyond 1st grade level. Therefore, teachers of these students were considered to be effective teachers. However, in classes where students, at the end of 1st grade, wrote only a few sentences without a clear understanding of capitalization, punctuation and spelling rules, teachers were judged to be less effective.

Pressley et al. (2001) built on Pressley et al. (1998). After a close observation of ten teachers across five states in the USA, they came up with 103 behaviours and characteristics, organized under seven categories, which were typical of highly

effective 1st grade reading teachers. These seven categories were excellent classroom management, a cooperative environment, explicit teaching (i.e., of comprehension), emphasis on literature, large quantities of reading and writing, scaffolding, encouragement of self-regulation and making connections across the curriculum. They defined an engaged reading classroom behaviourally: 90% of the students were engaged in productive reading and writing more than 90% of the time. They claimed that the more effective teachers also had more engaged classrooms.

Non-engaged readers have also been described behaviourally. For example, summarizing prior research in early literacy, Bryan et al. (2003) described non-engaged readers as passive and inactive, seldom seeing reading as pleasurable and often unwilling to take risks or venture beyond their limited reading comfort zone. Some measures like 'seeing reading as pleasurable' are attitudinal, which indicates that there is some overlap between behavioural and attitudinal aspects of engagement.

While Wigfield et al. (2008) looked only at student characteristics, Taylor et al. (2003) and Nystrand and Gamoran (1990) suggested that the ways teachers and students interact can impact student engagement. Similarly, Wharton-Macdonald et al. (1998) and Pressley et al. (2001) suggested that teacher behaviours and student engagement interact; however, their definition of student engagement relied solely on student reading and writing behaviours, similar to what Nystrand and Gamoran refer to as 'procedural engagement'. Analysis of more 'substantive engagement' requires examining not only student reading and writing behaviours but also how teachers and students engage in conversations in and around literacy. Therefore, this study considers student behaviours and the interactional patterns of teachers and students in the LSP.

Given this background I explore the following questions:

1. Which types of interactional patterns and activities in the reading classroom are indicative of high, moderate and low student engagement?
2. What implications do these data have for teacher education and the structure of an intervention programme in reading?

## Methodology

The study involved five teachers in the Learning Support Programme, known as Learning Support Coordinators (LSCs), and their students. Lesson observations with video recording and analysis were done using a coding scheme developed for the project. Ethical clearance for research with human subjects was obtained from the National Institute of Education (Singapore) before the start of the study, following the Institute's guidelines.

My approach was informed not only by this review but also by what was most discernible about student engagement in the videos in my data set. For instance, I began by looking for cognitive, motivational and behavioural aspects of student engagement, but realized that because of my focus on video as the primary data



source, the behavioural aspects of engagement would be a key emphasis. Repeated viewings revealed four aspects of student behaviour that indicated engagement: bidding, eye contact, student talk and excitement. At the same time, the viewings also provided evidence to support the idea that certain interactional patterns led to heightened student engagement. Given the nature of my data set, I developed my analysis within a behavioural and affective framework describing student engagement. Also, the videos reveal rich data on teachers' practices which I analysed on the basis of interactional patterns and which are linked to specific interactional patterns with high, moderate and low student engagement.

### ***Participants and Lesson Observations***

In 2010, a survey about pedagogy and teacher beliefs regarding bilingualism was sent to all the Learning Support Coordinators (LSCs) in Singapore primary schools: a total of 250 surveys which yielded 97 responses. Briefly the survey responses showed that teachers were ambivalent regarding the use of mother tongue in the teaching of English. More specifically there was an approximately 50–50 split between teachers who believed that the mother tongue could assist in the teaching of English and those who preferred total immersion in the target language (in this case English) (Vaish 2012). The last item in the survey asked if the LSCs would be willing to allow the research team to observe one unit of lessons conducted within the LSP. Nine teachers responded positively. Of these, five teachers were selected such that the project team could observe classrooms in all the three tiers of the LSP. The rationale for selecting these five teachers was logistical: though nine teachers were willing to be observed, only five of them had the time for a unit of lessons to be observed during the life of the research project.

One 'unit' of lessons is defined within this project as a series of consecutive lessons on one theme. Typically a unit is about 1 or 2 weeks of lessons and a lesson is a daily class of half an hour. The teachers were asked to choose a unit of lessons that they felt was typical of their pedagogy. For instance, in one of the schools, a series of seven consecutive lessons focused on a book titled *The Grasshopper and the Ant* (Loughhead 2006). Since each lesson was half an hour, the total time that this teacher was observed was 3.5 h. Table 9.1 summarizes the data collected for each school.

All observations were completed in the year 2010, though each school was observed at a different time in the year. The classrooms were cheerfully decorated with posters of high-frequency words and well equipped with audio visual equipment. The children sat either on chairs around a table or, if the teacher was conducting an activity that required kinaesthetic learning (rolling on the ground, etc.), on the floor. These classes tended to have 6–10 students.

The LSP student population is linguistically and ethnically diverse: 30% of the teachers in the LSP reported that they have foreign-born students in their class whose dominant home language is not English. Furthermore, my conversations with teachers revealed that many of the Singapore-born children also come from homes

**Table 9.1** Summary of classroom observations

School <sup>a</sup>	Hours of observations	Teacher <sup>a</sup>	Tier within LSP
Qin Hua Primary	3.5	Ms. Ang Lim Sin	1
Jin Hua Primary	5	Ms. Pamela Fernandez	2
Nan Xin Primary	3	Ms. Tan Sun Hee	
Hazelnut Primary	4	Ms. Lina Lim	
Everbest Primary	3.5	Ms. Siti	3

<sup>a</sup>All the names of teachers and schools are pseudonyms

where English is not their dominant home language. Teacher perceptions are that these children come to school with very little proficiency in English.

### ***Video Analysis of Engagement and Classroom Interaction***

One of the main methodological concerns in a study of student engagement through video analysis is deciding on the unit of analysis. Two choices confront the researcher: one focal student or the whole class. Repeated viewings of the videos in my data set revealed little difference in the way each of the 6–10 children interacted with the teacher or their peers in each class. Thus I took the whole class as the unit of analysis. As a result, the focus of this discussion is on the way the class interacts with the teacher at times of higher and lower engagement.

### ***Coding Interactional Patterns and Activities***

The 19 h of lessons were coded by two researchers while watching the video recordings. The researchers coded for two main variables: interactional patterns and student engagement. Interactional patterns are defined in terms of the way the teacher interacted with the class. More specifically, an interactional pattern is identified as a speech event (Hymes 1972) that lasted in the class for at least 3 min. “The term speech event will be restricted to activities, or aspects of activities, that are directly governed by rules or norms for the use of speech. An event may consist of a simple speech act, but will often comprise several” (p. 56). In other words, a speech event is a unit of discourse that can be set off from the rest of the transcript. For example, in a long transcript of teacher talk, it might be possible to look for instances of ‘clarification’; each of the instances in which the teachers try to clarify a point could be considered as a separate speech event in a larger data set. Interactional patterns that occurred for less than 3 min were not coded separately but were subsumed under a longer interaction.

Coding for interactional patterns revealed seven broad patterns in the 19 h of video. Six of these were based on whole-class interaction: Whole Class Lecture, Whole Class Elicitation, Whole Class Reading and Elicitation, Whole Class Choral

**Table 9.2** Definitions of whole-class interactional patterns

No.	Name of interactional pattern	Definition
1	Whole Class Lecture	The teacher delivers a monologue to the class
2	Whole Class Elicitation	The teacher asks a series of questions (usually closed questions) to check comprehension
3	Whole Class Reading and Elicitation	The teacher reads aloud. In between the reading, she asks questions as an 'elicitation'
4	Whole Class Choral Recitation	The whole class reads or recites as one voice
5	Whole Class Activity	An activity in which the whole class is involved but which does not involve role play or dramatization. For instance, the class could be given individual words that have been cut up and they have to piece the words together to make one sentence
6	Whole Class Role Play	Each student is given a role in a story to act out
7	Individual Activity	Students are given pencil and paper to write something. In all my observations, this was individual seatwork. Or the activity could be a non-writing one, e.g., the child puts magnetic letters together to form a word, but the child does this individually

Recitation, Whole Class Activity and Whole Class Role Play. Whole Class Role Play was distinguished from other types of whole-class activities not only because of a difference in its nature, as described in Table 9.2, but also because Whole Class Role Play created a lot of excitement amongst the students and thus warranted further scrutiny. The seventh interactional pattern did not involve the whole class but focused on Individual Activity: writing and non-writing. Definitions are given in Table 9.2.

In each 30-min class, each use of an interactional pattern was identified as an 'episode'. For example, if the teacher used Whole Class Lecture, followed by Whole Class Elicitation and then again Whole Class Lecture, this constituted three episodes. Thus, each episode could be set off from the others in that it mapped on to a distinct interactional pattern. Additionally, the coders described the activities in each of the episodes. For instance, for the individual activity of placing magnetic letters on the board, the coder would write a few sentences about this on the coding sheet to facilitate understanding of the classroom activities without constantly revisiting the video.

### *Coding for Student Engagement*

Evidence of student engagement was documented in behavioural terms. The coders looked for the four components indicating student engagement in each episode: bidding, eye contact, student talk and excitement. These four components of student

engagement were as much a result of grounded analysis as they were based on the review of literature. For instance, student talk is mentioned in the literature as a demonstrable feature of student engagement (Nystrand and Gamoran 1990). At the same time, from repeated viewings of the videos, the coders were able to see that classes in which students bid enthusiastically were different from those in which students did not respond to the teacher through bidding. In other words, classes with enthusiastic bidding appeared more engaged than those in which students did not respond through bidding.

The four components were given weighted, numerical values. Three components were worth three points each: bidding, eye contact and student talk. For each of these, 0 meant that engagement was nonexistent, 1 meant it was low, 2 meant it was moderate, and 3 meant engagement was high. For example, bidding, or a show of hands in order to be nominated to answer a question, was observed closely for all the 6–10 children in each class. A high score of 3 points was awarded to those episodes in which most of the children in the class enthusiastically raised their hands to answer the question. Eye contact or eye gaze was observed in relation to the task. If the teacher was talking and most of the children were looking elsewhere, 0 points were recorded for that particular episode; however, if most of the class was looking at what the teacher was trying to highlight, e.g., a word on a flash card, then 3 points were awarded for eye contact.

An additional point was given for visible display of excitement for a total of 10 possible points for each episode. Behaviours like shivering, dancing, jumping and clapping were coded as signifiers of excitement. If these behaviours were displayed by most of the children in one episode, then 1 point was awarded to that episode (by 'most' I mean all but 1–2 children in the class). Only 1 point was allocated for excitement as this behaviour was difficult to scale reliably. I am aware that these behaviours might not always signify engagement. For instance, it is possible that student could be jumping around the class in a display of disengagement rather than being engaged with the task at hand. To counter this, the videos were reviewed to ascertain that the excitement was indeed in response to what the teacher was trying to achieve in class and thus an indication of engagement and not disengagement. The coders agreed that most of the students in one episode must show excitement for that episode to earn this extra point. If only one or two students out of a class of 6–10 showed excitement, this point was not awarded.

Thus for student engagement, each episode was coded by both coders for bidding, eye contact, student talk and excitement, and all points were tallied. Out of 10, a total score of 1–3 was determined to signify low student engagement, 4–7 indicated moderate student engagement, and 8–10 showed high student engagement. Finally, the interactional patterns and activities were examined in relation to low, moderate and high engagement to address the first question of the study.

## Findings and Discussion

### *Overall Picture of Engagement in the LSP*

Figure 9.1 shows high, moderate and low engagement in all five classes that were part of this study. The percentage refers to the percentage of episodes showing student engagement as defined above. For instance, in Everbest Primary School, 40% of all the episodes coded had high student engagement, 47% had moderate student engagement, and 13% of episodes had low student engagement. The overall picture that emerges from Fig. 9.1 is that moderate student engagement is more commonly observed across the five schools as compared with either high or low student engagement.

Figure 9.2 summarizes the student behaviour in episodes of high student engagement. One of the patterns that stands out is that the first two schools, Everbest Primary School and Qin Hua Primary School, show fairly similar trends in the way that the components of high engagement are distributed. This means that high engagement in these two schools looks quite similar. Hazelnut Primary is a bit different from these two schools in that the level of eye contact and excitement were higher.

The presence of excitement was noticeable in all three schools with episodes of high student engagement. As Fig. 9.2 shows, Hazelnut Primary School led the other two schools as 15% of the score in high engagement episodes was awarded for behaviour that displayed excitement. In Qin Hua Primary School, this score was 12%. A very small percentage of episodes with high engagement were based on displays of excitement in Everbest Primary School. There was a variety of interactional patterns in episodes with excitement: Whole Class Activity, Whole Class Elicitation and Individual Activity (Writing).

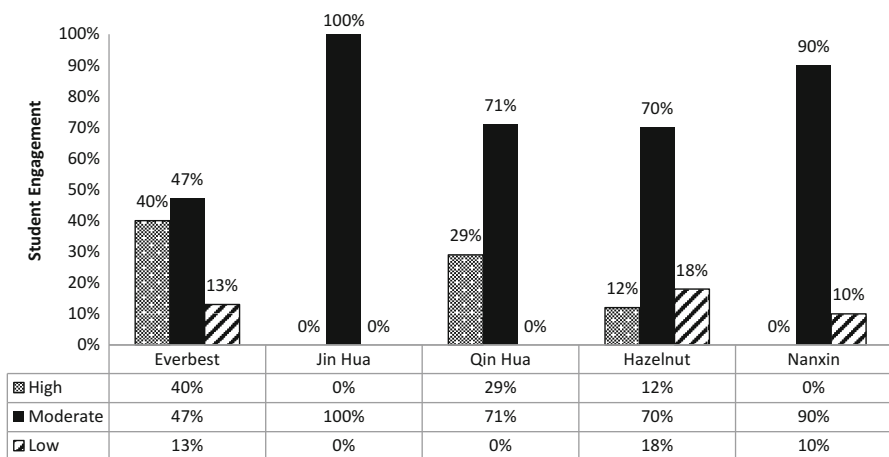
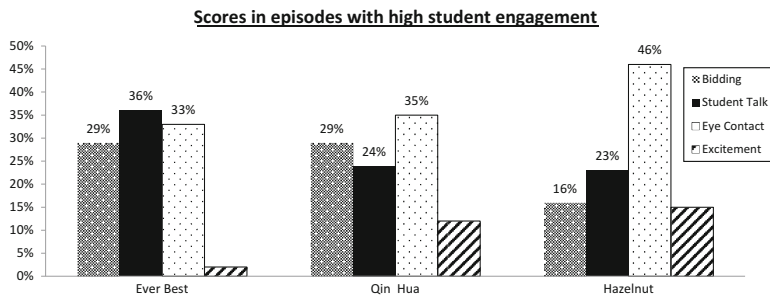


Fig. 9.1 Student engagement in five schools



**Fig. 9.2** Scores in episodes with high student engagement

### *Interactional Patterns and Student Engagement*

In this section I link interactional patterns (i.e., the way the teacher interacts with the students) with high, moderate and low student engagement.

Table 9.3 is an overall summary of the percentage of episodes showing high, moderate or low engagement by type of interactional pattern across the five participating schools. I will focus my discussion on the key findings. The first two interactional patterns in this table, Whole Class Lecture and Whole Class Elicitation, not only dominated in the types of interactional patterns found in the LSP classes but these two interactional patterns also presented an interesting contrast. In 78% of the episodes in which the teacher used Whole Class Lecture, there was low engagement in the class. Thus, it is reasonable to assume that in the LSP class, the interactional pattern of lecture does not engage these young children. A different outcome in terms of engagement was seen in episodes where the teacher used Whole Class Elicitation. With Whole Class Elicitation, the majority of episodes resulted in high or moderate student engagement (71%). This suggests that though the use of Whole Class Lecture in the LSP class is likely to result in low engagement, the use of Whole Class Elicitation manages to engage students in the lesson.

I now move on to Table 9.4, which provides more detail by showing the actual breakdown of the number of episodes in each interactional pattern. The majority of episodes in the LSP, i.e., 123, showed moderate student engagement, which led to the overall finding that in general the students in the LSP class are moderately engaged and that though there were few episodes of high engagement in these classes, there were also few episodes of low engagement.

Having established that classes in the LSP tend to be moderately engaged, Table 9.4 also shows that though in moderate and high engagement episodes, there were a variety of interactional patterns, in episodes with low student engagement, there were only two: Whole Class Lecture and Whole Class Elicitation. Thus, it is possible that one of the reasons for low engagement is that the teacher does not vary the interactional patterns. Also, by choosing mainly Whole Class Lecture and Whole Class Elicitation, the teacher was choosing interactional patterns which discouraged student interaction. In other words, the type of interaction that the teacher chose could determine how engaged the class would be.

**Table 9.3** Percentage of the nature of engagement across schools

Interactional patterns	High engagement	Moderate engagement	Low engagement
Whole Class Lecture	0	4	78
Whole Class Elicitation	40	31	22
Reading and Elicitation	20	0	0
Choral Elicitation	0	39	0
Whole Class Role Play	20	4	0
Whole Class (other) Activity	10	18	0
Individual Activity	10	4	0
Total	100	100	100

Note. '0' indicates no episodes for that cell

**Table 9.4** Engagement by episode type and number of episodes

Episodes of interactional patterns ( $n = 174$ )	High engagement		Mid engagement		Low engagement	
	No. of episodes	%	No. of episodes	%	No. of episodes	%
Whole Class Lecture	0	0	5	4	14	78
Whole Class Elicitation	13	40	38	31	4	22
Whole class Reading and Elicitation	7	21	0	0	0	0
Choral Recitation	0	0	48	39	0	0
Whole Class Role Play	7	21	5	4	0	0
Whole Class (other) Activity	3	9	22	18	0	0
Individual Activity	3	9	5	4	0	0
Total	33	100	123	100	18	100

Finally, the dominance of Whole Class Choral Recitation, as shown in Table 9.4, needs explanation. In 39% of the episodes with moderate engagement, the interactional pattern observed was Whole Class Choral Recitation. In keeping with Paige's (2011) definition (see below), Whole Class Choral Recitation was documented when the whole class answered as one voice. In contrast, when only one student answered, then this was documented as 'student talk'. In this environment Whole Class Choral Recitation is important for emergent readers as it gives them an opportunity to produce and practise their developing English language and literacy skills.

Paige (2011) recommends whole-class choral reading (WCCR), a pedagogy in which the class is taught to read aloud from one text in 'one voice' like a choir to improve decoding ability and oral fluency. Before reading begins the teacher models accurate pronunciation, appropriate reading rate and prosody. At the end of the reading, the teacher provides feedback by modelling the pronunciation of difficult words and phrases and by calling attention to prosodic markers. In most LSP classes, the teacher did preface the choral reading by modelling and reciting for the children. Thus, choral reading was an important part of the output for children in the LSP class though it tended to bring about only moderate engagement.

## *High Student Engagement*

While the quantitative data provide some evidence of student engagement in the classroom, they cannot fully capture the nuances of the classroom interactions. In this section I discuss transcripts from two lessons, both from the same teacher and same group of students, but one showing high engagement and the other showing moderate engagement.

The transcript in Example 9.1 was taken from Hazelnut Primary School, day 5. This episode, with high student engagement, had a duration of 6 min and 31 s and was taught by Ms. Lina Lim. The four components of high student engagement, namely, bidding, eye contact, student talk and excitement, are all present in this episode. Ms. Lim was introducing the six students to phonics. At the beginning of this lesson, Ms. Lina Lim had said that this lesson was on ‘Magic E’. She articulated two rules about why ‘E’ is magical: it is silent at the end of a word and it changes the vowel. Ms. Lim gave the class examples like “Sam” which changes to ‘same’ if an ‘E’ is added to the end of the word. In Example 9.1 Ms. Lina Lim illustrated the Magic E rule with a new word: nightmare.

### Example 9.1

Turn	Speaker	Utterance
1	T	OK, very good (). OK, let’s see the two words that we learnt today. () let’s hope you can try hunh but I will help you with some words. I need some words on the board for you OK. What’s the word here? (most of the children raise their hands) Have you done this in class? What is it called? What is this word? (some children wave their raised hands) Nightmare.
2	S	Nightmare.
3	T	Nightmare (makes her voice sound scary).
4	S	Nightmare.
5	T	There are two () with the word: nightmare. Say here. I was afraid because I had a nightmare the previous night. And look. This is the nightmare (laughs). Yes this is the nightmare.
6	S	The ghost.
7	T	Ya, the ghost in your mind. OK, so we are going to try to start the word nightmare.
8	S	I afraid who there.
9	T/SS	Night.
10	T	What happened to my ‘T’? Why is it different? And then ‘mare’.
11	T/SS	Mare.
12	T	OK we try. Ready. Ready. Ready on the table. Ready go.



- 13 T/SS Nightmare.  
Raj: I like this.
- 14 T You think I can clean off some words. Some of this. We try  
Ok. Let's clean off the letter N. Ready let's try.
- 15 T/SS Nightmare.
- 16 S Let's do the scratch hand.
- 17 T OK, I will clean off this one, the letter 'E'.
- 18 S2 Let's do it in our butt.
- 19 T You want to do on the butt?? OK, come. What is this scratch  
hand? Oh you want to write on your hand, is it?
- 20 S No no. The body. Body.
- 21 T OK, you write on body. Those who want to write on your  
hands, write on your hand. Those who want their butt () butt.
- 22 S Body.
- 23 T OK, body. Ready, one, two, go: nightmare
- 24 T/SS Nightmare.
- 25 T OK, sit down. We are going to clean off some more words.  
Some more letters. We are only going to leave this last one  
out there. May we can try nightmare again. Ready?

*T* teacher, *S* student, *SS* students, *T/SS* teacher and students

The four components of high student engagement, namely, bidding, eye contact, student talk and excitement, are all present in this example. In the beginning of this episode, turn 1, there were instances where the children bid furiously. Also, their eye contact was always on the teacher when she was talking and on the task, when they were writing on the desk with their fingers.

In terms of student talk, this example shows how the teacher shared leadership in the classroom by deviating from a scripted pedagogy and allowing the students to make suggestions. In turns 16, 18 and 20, three different students made three suggestions regarding how they should write the word 'nightmare'. In turn 16 a student said, "Let's do the scratch hand". In turn 19 the teacher sought clarification for this suggestion. She asked: "What is this scratch hand?" And in the very next sentence, she answered her own question: "Oh, you want to write on your hand, is it?" Usually the children used their fingers to form the shape of the letters on their desks, but in this case the student was suggesting that they should do the same action on their hands/arms. This is evident in turn 19 when the teacher said: "Oh, you want to write on your hand, is it?", responding to the student's demonstration by using his fingers to write on his arm and hand.

The second suggestion was by a student in turn 18: "Let's do it in our butt". The student had used an incorrect preposition and the teacher rephrased his suggestion with the correct one: "You want to do it on the butt? OK". Finally in turn 20, a student suggested: "No, no. The body. Body". Thus, the suggestions were that the class should write the word 'nightmare' on their hands, on their butts and on their bodies

using their fingers to write invisible letters. From turn 16 onwards, the video shows an increasing level of excitement in the class. The suggestions of the students and the openness of the teacher to these seemingly ridiculous suggestions created a fun orientation as evidenced by a class that exuded energy as the students moved their bodies around, giggling and laughing occasionally.

Example 9.2 is an illustration of moderate student engagement with the same class of students and the same teacher. The six students were sitting in front of Ms. Lim, who sat on a chair, holding a book in which the text and pictures were facing the children. Ms. Lim had read this story to the class before and they were familiar with it. In this episode Ms. Lim was checking if the class had understood the story.

### Example 9.2

Turn	Speaker	Utterance
1	T	OK, let's read the sentence again.
2	T/SS	'Come back, Bingo' shouted Sam. 'You are a naughty dog'
3	T	What did he say? (two hands are raised to answer this question)
4	T/SS	'Good dog, Bingo', said Sam. 'You come back'
5	S	Little dog died.
6	T	You read the story again tomorrow.
7	S	() dog died.
8	T	No. He can swim, not ().
9	S	Dogs are very good swimmers. I saw Mickey Mouse (). The dog swims, it swims.
10	T	OK, did you like the story about Bingo?
11	SS	Yes.
12	T	OK, who did Bingo go walk with? Do you remember?
13	S	Sam and Mum.
14	T	Sam and Mum. Very good. And in the end, who did, what happened when they went for a walk? Who did they see?
15	S	The duck.
16	T	Hmm
17	S	The duck.
18	T	They saw the ducks.
19	S	Then Bingo go in the river.
20	T	He went into the river. What did he do before he went into the river? He went and what?
21	S	Run and bark.
22	T	Run and bark at who?
23	SS	The ducks.
24	T	The ducks. And then after that they went to the river. Correct or not?
25	S	Next time I am going to chase dogs.
26	T	I am going through this again with you. Then later on you have to read your sight words. We are going to create a new one for you. See next, the next few. I have 1-40 again.

- 27 S Very very easy
- 28 T Oh, I'm so glad you think it's very easy. OK, as I had gone through with you yesterday, you have to read them yourself. OK, before I start I will give your papers. I want you to write your name and class on it.

A number of differences are evident between Examples 9.1 and 9.2. Crucially, Example 9.2 has no kinaesthetic learning and no visible displays of excitement. The students were sitting on their chairs facing the teacher and answering her questions. As shown in Table 9.3, Whole Class Choral Recitation and Whole Class Elicitation were the dominant interactional patterns in episodes with moderate student engagement. In Example 9.2 Whole Class Choral Recitation is evident in turns 2 and 4 where the teacher reads along with the students. At the same time, she modelled correct pronunciation and prosody. In turn 12 she began a comprehension check through a series of closed 'who' and 'what' questions. For instance, in turn 12 she asked: "Who did they see?" The purpose of these questions seemed to be to scaffold the students towards a better understanding of the text.

Overall Example 9.2 shows Ms. Lim was conducting a traditional class with Whole Class Choral Recitation and closed questions that resulted in limited student responses. We might assume engagement would be low. However, a closer reading of Example 9.2 clearly shows moderate, though not high, student engagement. Students were allowed to interject as can be seen in turn 4 when a student commented about Bingo: "Little dog died". At first the teacher brushed this comment aside by saying the student should read the story again. However, when in turn 7 the student repeated himself, the teacher clarified in turn 8 by explaining that Bingo could not have died because he could swim. Now the student understood and reinforced the teacher's explanation by confirming in turn 9 that he had seen a Mickey Mouse movie that showed dogs are good swimmers. The moderate engagement in this example is evident mainly by student talk and eye contact. All six children had their eyes fixed either on the teacher when she talked or on the text book, which provided evidence that they were on task. However, there is not much evidence of bidding. In the beginning of this example, a few children did bid for turns, but the teacher did not call on them to answer her questions.

## Conclusion

The focus of this chapter was on student engagement in a low-track reading programme in Singapore. As discussed in the review of literature, student engagement has been measured through the use of surveys that were either self-reports from the students or reports from teachers who were commenting on their students. Engagement has also been measured by coders observing a classroom and filling

out a coding sheet. Finally, test results have been an important measure of student engagement. However, there are few studies which have used video data to code a small class of 6–10 pupils in terms of behavioural engagement. My attempt has been to fill this gap in the literature by identifying and analysing engagement in students designated as low achieving. Using four major components of student engagement – bidding, eye contact, student talk and excitement – I found moderate student engagement in most classes.

As shown above, the LSP lessons with low student engagement tended to use Whole Class Lecture as the predominant interactional pattern. Thus, the main pedagogical implication of this study is that in teacher training, teachers should be sensitized to the variety of interactional patterns that are available to them in the teaching of reading in English. In this data set, Whole Class Lecture as an interactional pattern was not effective for the development of early literacy in young children. As seen in the classes of Ms. Lina Lim, she hardly used Whole Class Lecture. Instead she tended to use Whole Class Activity which created engagement in the children towards learning. She also used Whole Class Elicitation to make the children talk. Thus, interactional patterns that involve activities or more student talk appear to increase levels of engagement in classrooms. This finding was also corroborated by Nystrand and Gamoran (1990) who analysed transcripts of student and teacher talk to comment on student engagement. They found that larger quantities of student talk were one demonstrable feature of robust engagement.

Several limitations to this study should be noted. As only five teachers in five schools were observed, this study cannot speak for the entire Learning Support Programme in Singapore, which is offered in all primary schools. It is not reasonable to assume that moderate student engagement is present in the entire Learning Support Programme or indeed that there are very few classes with low student engagement. Also, the lack of survey data and test results puts the entire burden of this study on the coding of videos and a behavioural analysis of student engagement, which can be subjective. Despite these limitations, the analysis was able to link interactional patterns with student engagement to show that, within the context of the LSP, certain types of interactions result in better engagement for struggling readers.

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## References

- Bryan, G., Fawson, P. C., & Reutzel, R. D. (2003). Sustained silent reading: Exploring the value of literature discussion with three non-engaged readers. *Literacy Research and Instruction*, 43, 47–93. doi:10.1080/19388070309558400.

- Hymes, D. (1972). Models of the interaction of language and social life. In J. Gumperz & D. Hymes (Eds.), *Directions in Sociolinguistics: The ethnography of communication* (pp. 107–123). New York: Holt.
- Loughead, I. (2006). *The grasshopper and the ant*. Toronto: Scholastic.
- Nystrand, M., & Gamoran, A. (1990). *Student engagement: When recitation becomes conversation* (Research Report No. G-008690007). Madison: National Center on Effective Secondary Schools. Retrieved from: <http://www.eric.ed.gov/PDFS/ED323581.pdf>
- Paige, D. D. (2011). “That sounded good!”: Using whole-class choral reading to improve fluency. *The Reading Teacher*, 64, 435–438. doi:10.1598/RT.64.6.5.
- Pressley, M., Wharton-McDonald, R., Allington, R., Block, C. C., & Morrow, L. (1998). *The nature of effective first-grade literacy instruction* (CELA Research Report No. 11007). Retrieved from: <http://cela.albany.edu/1stgradelit/index.html1998>
- Pressley, M., Wharton-McDonald, R., Allington, R., Block, C. C., Morrow, L., Tracey, D., Baker, K., Brooks, G., Cronin, J., Nelson, E., & Woo, D. (2001). A study of effective first-grade literacy instruction. *Scientific Studies of Reading*, 5, 35–58. doi:10.1207/S1532799XSSR0501\_2.
- Taylor, B. M., Pearson, D. P., Peterson, D. S., & Rodriguez, M. C. (2003). Reading growth in high-poverty classrooms: The influence of teacher practices that encourage cognitive engagement in literacy learning. *The Elementary School Journal*, 104, 3–28. doi:10.1086/499740.
- Vaish, V. (2012). Teacher beliefs on bilingualism in a reading program. *International Journal of Bilingual Education and Bilingualism*, 15, 53–69. doi:10.1080/13670050.2011.594496.
- Wharton-McDonald, R., Pressley, M., & Hampston, J. (1998). Outstanding literacy instruction in first grade: Teacher practices and student achievement. *Elementary School Journal*, 99, 101–128. doi:10.1086/461918.
- Wigfield, A., Guthrie, J. T., Preencevich, K. C., Taboada, A., Klauda, S. L., McRae, A., & Barbosa, P. (2008). Role of reading engagement in mediating the effects of reading comprehension instruction on reading outcomes. *Psychology in Schools*, 45, 432–445. doi:10.1002/pit520307.
- Yang, T. P. C. (2004). *Effectiveness of the learning support program in a primary school*. Unpublished Master’s thesis, National Institute of Education, Nanyang Technological University, Singapore.

# Chapter 10

## Distinctiveness and Uniformity: Teaching Language in Singapore Primary Grades 1 and 2

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### Introduction

Given the national education system and the language-in-education policy which claims equal status for four official languages in Singapore (Chinese, English, Malay and Tamil) but provides them with different roles in society (e.g., Alsagoff 2011; Leimgruber 2012; Silver 2005), to what extent does teaching in the four languages show distinctiveness or uniformity? In other words, if all four languages are part of the same system, and are official languages purported to have equal status, but have different histories, cultural attachments, as well as differences in the languages themselves (grammatical structure, writing system, etc.), in what ways might classroom pedagogy be different or similar for the four languages? Most research to date examines the languages in isolation, considering policy, pedagogy or policy-pedagogy links. For example, Wong (2007) and Sripathy (2007) both look at the pedagogy of English reading lessons in the primary grades; Liu and Zhao (2008) examine the implementation of the Chinese curriculum in Primary 1 and 2 classes; Shegar and Thinnapan (2007) examine the teaching of Tamil at Primary 5 and secondary grades; and Subhan (2007) considers curriculum changes in light of

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language shift and Malay language proficiency in the broader society. Similarly, in this volume, articles examine the pedagogy of each language individually (Abdullah; Goh and Lim; Lakshmi; Yang; Zhao and Shang). There are few, if any, investigations of language pedagogy across the national, quadrilingual system.

A number of recent educational policy initiatives by the Ministry of Education (MOE), Singapore, are intended to influence pedagogy across all subjects, including language.<sup>1</sup> Particularly relevant for the study described in this chapter is the Primary Education Review and Implementation Committee (PERI) report (MOE 2009). The committee was formed to consider ways to enhance primary school education by building on past strengths while preparing students with “21st skills” (MOE 2010b). The focus of the PERI report was not on specific academic subjects but on broader issues of enhancing nonacademic programmes, balancing skills and values and fostering student engagement. However, there were some subject-specific suggestions. For instruction in the mother tongues (Chinese, Malay, Tamil), these suggestions were to develop “pupils’ confidence and fluency in oral communication” and to imbue moral values in lessons (p. 31). Similarly, specific suggestions for English language were to enhance the development of oracy (defined as “listening and speaking skills”), use “distinctive research-based and age-appropriate teaching methods which are focused on the learner” and encourage a love of reading (p. 31). The suggestions across languages, then, are similar in that they encourage an increased emphasis on communication and oracy, but distinct in their emphasis on moral values for the mother tongues (MTs) and a love of reading for English language (EL). These suggestions – emphasising values in MT instruction and skills in EL instruction – echo long-standing policy guidelines for the official languages. Given the different syllabi and curricula but similar policy initiatives within the national educational system, this chapter sets out to examine the extent to which classroom language teaching indicates uniformity or distinctiveness across languages.

## ***Policy Background***

Singapore’s language policy, and the history of that policy, is well known (e.g., Alsagoff 2011; Dixon 2005; Silver 2005; Tupas 2011). A brief summary of relevant points is given here. Firstly, all students must take English language plus one of the MTs throughout primary and secondary school. MT selection is usually based on the ethnicity of the student’s father regardless of home language use or student proficiency (See also Silver and Bokhorst-Heng, this volume). A significant proportion of the primary school curriculum is devoted to language instruction: about one-third of all hours are devoted to languages with a slightly higher percentage in Primary 1 and 2 (P1 and P2) and a slightly lower percentage from P3 onwards when students

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<sup>1</sup>For discussion of how the various initiatives influence pedagogy in one language, English, see Silver et al. (2013).

add Science to their core subjects (MOE. n.d.). Students are supposed to develop language and literacy skills in two languages; comprehensive assessments of speaking, reading, writing, listening, grammar and vocabulary in each language are given. EL and MT are supposed to be taught “at the appropriate level according to the ability of the student” (MOE 2013, p. 4); however, students are also expected to learn English to ‘first language level’ and their MT to ‘second language level’. In the Singapore educational system, this seems to mean that EL should be learned to the highest degree of proficiency and literacy as it is the medium of instruction for all courses except MT (and, at the primary level, Character and Citizenship Education [CCE]<sup>2</sup>). Census figures show that there has been substantial success in educating the citizenry in two languages as 79.9% of census respondents report they are literate in English and 70.5% state they are literate in two or more languages (Singapore Department of Statistics 2010).

Secondly, while English is the medium of instruction for most classes and is considered to be crucial for education and work, the MTs are considered to be the moral foundation of society. Thus, there is a separation in the roles and declared relevance for EL and the MTs. The role of MT for teaching moral values is evident not only in the teaching of CCE but also in the language syllabi. For example, the English language syllabus emphasises necessary skills for students to learn (e.g., listen to, read and view with understanding; make presentations; interpret and evaluate fiction and non-fiction) (MOE 2001, p. 3), while the MT syllabi emphasise language skills and explicitly refer to moral and cultural values. For example, the Malay language syllabus refers specifically to the teaching the concept of *Arif Budiman*, a person of good character (see Abdullah, this volume), the Tamil syllabus also refers to development of good character especially in reference to citizenship, and for Chinese this is interpreted as ‘citizen with values’ (see Yang, this volume). Numerous policy speeches reiterate this separation; research on the history of Singaporean language policy has also discussed and critiqued the distinction (e.g., Gopinathan et al. 2004; Tupas 2011).

Despite the policy division of language for education and profession vs. language for character and citizenship, intercultural dimensions of personal and social values are embedded in all language learning. Gutiérrez et al. (2011), for example, highlight the ways in which bilingual children make use of two languages along with intercultural experiences for enhanced language learning and literacy. Curdt-Christiansen and Silver (2013) found that embedded values can conflict with suggested pedagogical innovations in English and recommended that surface changes of the type often attempted though policy initiatives must go much deeper if educational reform goals are to be met.

Internationally, researchers have pointed out the difficulty of implementing policy initiatives in classroom teaching (e.g., Fullan 2007) because teachers do not *deliver* policy, they *mediate* it (Hayward et al. 2004; Lefstein 2008; Stritikus 2003; Wiley et al. 2008).

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<sup>2</sup>Previously referred to as CME – Civics and Moral Education.



## *Curriculum Reform*

The current, overarching education policy umbrella in Singapore is referred to as *Teach Less, Learn More* (TLLM) (MOE 2005a; Tharman 2004), which encourages less structured teacher-fronted teaching and more interactive lessons. *TLLM* is embedded in the foundational *Thinking Schools, Learning Nation* (Goh 1997), which requires schools to “develop future generations of thinking and (TSLN) committed citizens, capable of making good decisions to keep Singapore vibrant and successful in the future” (Goh 1997, para 18). (See also Gopinathan 2007; Silver et al. 2013, for discussion and critique). Curricular reforms specific to languages include new syllabi in 2001 (English) and 2007 (Chinese, Malay and Tamil) with an EL syllabus revision in 2010. All of these syllabi are intended to address the broad policy goals of TSLN and TLLM. However, there are a number of distinctions between the EL and MT syllabi and, indeed, among the MT syllabi.

The EL syllabus 2001 (MOE 2001), as compared with the 1991 syllabus, shifted from an emphasis on discrete teaching of language skills through thematic units to an emphasis on “text types” and a view of language as meaning-making. This syllabus was in use but under revision in 2009, the time of data collection for the study presented in this chapter. Subsequently, in 2010, an EL syllabus revision reintegrated more explicit grammar instruction by refocusing on “receptive skills”, “productive skills” and “knowledge about language” (MOE 2010a, p. 10) while maintaining the same emphasis on language use and “effective communication” (p. 7) and the same instructional principles as the 2001 EL syllabus. Neither the 2001 nor the 2010 EL syllabi mention citizenship, good character or values – in keeping with the image of English as having a utilitarian rather than identity-building role in Singapore. Instead the focus is solely on learning English language skills to a high level of linguistic proficiency. This is supported by the English language curriculum, STELLAR, which was introduced in lower primary at the time of this study and which has an emphasis on improving language and reading skills (MOE 2008–2014).

Compared with previous versions of the CL syllabus, the 2007 revision emphasises a customised approach to the teaching of CL for students with different language competencies and family backgrounds (MOE 2007a). The major changes for the 2007 syllabus were to: (1) divide a lesson into bridging module, core module and enrichment module to meet the needs of different levels of student (see Zhao and Shang, this volume); (2) encourage teachers to develop school-based textbooks as supplementary materials; and (3) give priority to listening and speaking skills at the beginning stage of CL teaching, especially P1 and P2. The deployment of a policy of customisation gave rise to the CL ‘B’ syllabus, which aims to help secondary school students who have difficulties with CL learning (as evidence by their grades in primary school). The ‘B’ syllabus (MOE 2006) thus has relatively lower proficiency requirements. It is claimed that the CL ‘B’ syllabus with a lower level of content is in the best interest of students as it encourages continued learning at a more attainable level rather than forcing students to try to reach unachievable goals.

The CL syllabi also emphasise the teaching of moral values and traditional Chinese culture (see, again, Yang, this volume).

The current Malay language (ML) syllabus was also implemented in 2008 (MOE 2007b). The syllabus emphasises developing language proficiency and cultural depth. The syllabus also introduced the *Arif Budiman* vision – the vision of a learned person who contributes to society. Overall, this vision is integrated with three objectives: passion for excellence, speaking Malay well and differentiated learning. Oral skills were given increased importance with an emphasis on a contextual approach in developing such skills. It is expected that learning in primary school will ensure a good foundation in listening and speaking skills, acquisition of wide range of vocabulary and understanding patterns and structures of language – all of which will also facilitate their writing skills as the students' progress. With regard to differentiated instruction, provisions were made for teachers of P1 and P2 to adapt their teaching to cater to ML students with varied home language backgrounds and abilities. Within the Arif Budiman vision, there is also an emphasis on teaching Malay cultural traditions and values, although this may not be carried explicitly in Malay language lessons (see Abdullah, this volume).

The Primary School Tamil Language Syllabus (MOE 2007c) was also implemented in 2008. This version of the syllabus focuses on oral communication, especially aural and oral skills, which is considered to be especially important for students from English-speaking homes. At the same time, it agrees with a higher profile for oral communication in the most recent syllabi of all four languages. With the emphasis on oral communication, 'Spoken Tamil' has a special place in Tamil language (TL) classroom activities. As explained by Lakshmi (this volume), Tamil is diglossic, with differentiated 'high' and 'low' varieties for more informal/formal uses and for speaking/writing; therefore, it is necessary for TL students to understand the distinctions. The goal is for student to be able to use Tamil in the classroom as in life, according to the situation (informal or formal). In addition to an emphasis on teaching Spoken Tamil as an educated spoken variety, the 2007 TL syllabus allows the teaching of the Tamil alphabet over 2 years (Primary 1 and 2) instead of 1.25 years, as compared to the earlier syllabi. This is intended to help teachers lay a strong foundation for literacy along with the integration of language skills.

Since the introduction of these syllabi and continuing since, there have been efforts to encourage more formative assessment across all primary school grades, with more variety in assessment instruments and modes, and to reduce formal examinations especially for lower primary grades. Teachers are encouraged to "adopt assessment practices that provide information on how well students have performed and provide timely feedback to improve learning" (MOE 2008b, Appendix B). Although the focus of the current study was on daily classroom teaching and not on formal assessment practices, teachers confirmed that formal examinations were recommended for each semester, rather than each quarter (as was the practice in the past). In principle, this could allow for alternative assessments throughout the year or at the end of each term.

Thus, all four language syllabi emphasise good communication skills and, to some extent, oral/listening skills and contextualised use. There are different emphases on the teaching of reading and writing although all of the syllabi require literacy instruction along with basic alphabetic or character reading/writing skills. The MT syllabi make specific reference to moral values and ethnic culture, while the EL syllabus does not. The latest MT syllabi also reflect awareness of the changing linguistic environment in Singapore with more families shifting to English as one of, if not the sole, family language, through ‘differentiated’ or ‘customised’ instruction.

## ***Research Objectives***

Based on the broad policies for language in education in Singapore as well as the syllabus and curriculum revisions, we set out to describe and compare instruction in P1 and P2 classes for EL and all three MTs. We were particularly interested in the extent to which policy statements and initiatives such as greater emphases on oral communication and customisation for student knowledge/ability were evident in observed lessons. The earliest years of schooling were chosen because most new initiatives in Singapore, such as the new syllabi, are introduced from P1 and then move progressively up through the school years along with that cohort of children. The focus of the study was on in-class instruction. The primary means of data collection was lesson observations with a predetermined coding scheme with support from teacher interviews, as described below.

## **Methodology**

### ***Participants***

There are four geographic zones or ‘clusters’ in the Singapore school system: North, South, East and West. Schools within the same cluster in Singapore were invited to participate. Ten schools agreed, although not all of them offered all four languages (Table 10.1). Depending on the ethnic composition of the student population, some schools offered only Chinese or only Chinese and Malay, along with English. Nine of ten schools were mixed gender; one was a single-gender school. Two of the ten were ‘government-aided’ schools, meaning they were funded partially by the government and partially by private sources. One was a ‘Special Assistance Plan’ school: These schools offer higher-level Chinese for those students who are academically strong as well as a variety of programmes to enrich learning of Chinese language and culture (MOE 2008a). Thus, the schools comprised a mix of Singaporean school types with the majority being the most common ‘government-funded’ or ‘neighbourhood’ schools.

**Table 10.1** Lessons observed, by language

	English	Chinese	Malay	Tamil	Total
No of participating schools/teachers	10	9	8	5	32
Lesson observed	19	17	16	10	62

Participating teachers were those who volunteered following an information session at each school. Schools could participate only if there was at least one volunteer teacher at P1 and P2 for each language offered. In this way we could consider instruction across languages at the same schools for both grades. Due to scheduling difficulties one EL and three CL teachers withdrew. The final number of lessons observed was 62: half at P1 and half at P2.

### *Lesson Observation and Coding*

All lessons were observed and recorded with audio and video. Copies of lesson materials were collected as needed, and photographs were taken of the empty classrooms in order to capture materials/student artefacts posted on walls as well as other resources available in the rooms (e.g., in-class libraries, role play corners). Observed lessons were coded using a coding scheme developed for the project (Silver et al. 2010). Briefly, the coding scheme emphasised:

- Classroom participation patterns (e.g., whole class teacher-fronted, individual private [seatwork], pair work)
- Physical arrangement (e.g., student seated in rows, at desks arranged in clusters, on the floor at the front of the room)
- Activities (e.g., drill and practice, choral reading, teacher exposition, classroom discussion)
- Language subskill focus (e.g., listening, writing, grammar)
- Child-centred instruction (e.g., evidence of student engagement, teacher's classroom management strategies, evidence of encouraging/discouraging interaction, risk-taking, problem-solving, collaboration and independent learning)
- Continuous assessment of student learning (e.g., student-produced work, documentation of learning)

Lessons were coded hierarchically: first by participation patterns with other features of coding (e.g., physical arrangement, language subskills) coded within each participation pattern.

A team of coders, one specialising in each language with all MT coders bilingual in English plus the MT, was trained to the coding system using sample recordings from a prior study as well as initial recordings from this project. A subset of six English lessons (1/3 of the lessons for that subject) was used to check pairwise inter-coder agreement with one 'master coder' and each individual in the team (five in all). These lessons were used because English was the common language for all

members of the research team. Agreement for coding of English lessons was above 80% overall, with inter-coder agreement 75% or higher for the individual categories in the coding scheme. Subsequently, a subset of at least two lessons per subject were watched and discussed by the full research team to ensure uniform understanding of the coding categories across languages and to reconcile any coding difficulties across topics. All other lessons were coded by a team of two coders – one specialising in the language of the observed lesson and one other member of the research team. As they watched the video together, they discussed the coding, questioning and clarifying until the coding was finalised. If any disputes on coding could not be resolved or any questions on coding remained, the problematic excerpt was shown to the research team as a whole and resolved by consensus. This was done because of the difficulty of verifying inter-coder agreement on MT lessons (i.e., in languages which other members of the team did not understand). In sum, after training and establishing baseline coding agreement, all remaining lessons were coded by at least two coders, working collaboratively, with cross-checks across lessons and subjects and final resolutions made by consensus with the research team as a whole.

All lessons were subsequently transcribed and translated, with visual information from the videos added as needed to understand the classroom discourse. For example, if a teacher said, “Look at this”, visual information was added to indicate where the teacher was pointing. In addition, lesson transcripts were not coded as separate data sources; instead they were used as supplementary material to better understand how lessons developed in relation to the coding scheme. For example, common participation patterns and activities were identified, and then lesson transcripts with these participation patterns and activities were read within and across languages to see how the participation patterns were enacted through classroom talk.

## Findings

Observational data showed that across all four languages, there was considerable uniformity in terms of instructional practices. Specifically, teacher choices for participation patterns, physical arrangement of classrooms and activity types were very similar, reflecting common classroom practices for organising learning. There were also similarities in the way authority was exercised and presented in classrooms including classroom management choices. However, there were striking differences in encouraging interaction, risk-taking, problem-solving, collaboration and independent learning during lessons. There were also some differences in student engagement as evidenced by on-task behaviour and student enjoyment. Lesson content (i.e., skill foci and types of student-produced work) also showed some differences across languages, possibly reflecting differences in the syllabi and curricula. There was no evidence of the type of continuous, formative assessment proposed by

recent policy reforms. Finally, there was a consistent lack of linkage to language and literacy development across languages (i.e., students' bilingual development) between continuous, formative assessment and lesson content across all four languages. Each of these is discussed in turn.

### ***Participation Patterns, Physical Arrangement and Activity Selection***

Participation patterns, physical arrangements and classroom activities selected by the teacher were interlinked, with particular types of activities most often done in a specific physical arrangement and a particular participation pattern (cf Silver and Kogut 2009). For example, giving instructions (activity) was typically done with students sitting at their desks or all together on the floor, in a whole class teacher-fronted participation pattern. In terms of participation patterns, teachers' most frequent choice was to lead the classes 'from the front'. This made up over half of all participation patterns and was evident in all lessons. Whole class teacher-fronted participation was not only most frequent but also consumed most of the lesson time (Table 10.2).

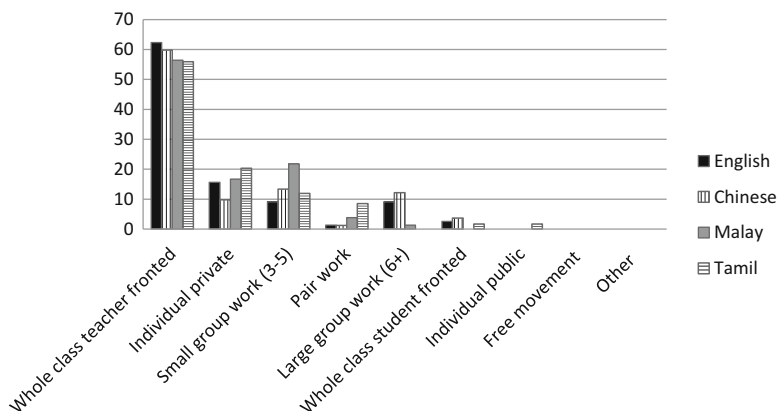
Peer work (pair, small and large group) and individual private, or seatwork, were relatively infrequent as compared with whole class teacher-fronted participation patterns (Fig. 10.1). In addition, when peer work was used, Tamil and Malay teachers usually preferred small groups and pairs, while Chinese and English teachers tended to use small groups and large groups rather than pair work.

Equally notable is what was not done: in general teachers made very limited use of participation patterns which might encourage more self-directed or student-led learning, an explicit goal of current policy initiatives such as PERI (MOE 2009). For example, 'free movement' which would capture use of learning centres, reading in class library corners or working independently at self-set tasks was not observed in any lesson although learning centres and class libraries are recommended. 'Individual public', which would encourage students to work individually in a public space, rather than at separate desks, and could include, for example, having students display work in progress on the board or creating literacy-related artefacts while sharing materials, was never observed.

**Table 10.2** Time used for most common participation patterns (%)<sup>a</sup>

	English	Chinese	Malay	Tamil
Whole class teacher-fronted	73	82	63	68
Individual private	10	2	16	16
Peer work	16	14	21	14

<sup>a</sup>Tables show the % of each participation pattern for each language, i.e., 73% of EL participation pattern were whole class teacher-fronted



**Fig. 10.1** Participation patterns used in language lessons (%)

### Physical Arrangement

In all four languages, the choice of participation pattern types was linked to the physical arrangement of classrooms and the types of activities during lessons (Table 10.3). Cluster seating, which is usually intended to foster peer work, was used in more than half of the participation patterns across all subjects, though teacher-fronted and individual seatwork were as common as peer work while students were seated in clusters. Teachers also had students sit at the front of the room on the floor for teacher-fronted activities, at least in English, Chinese and Tamil lessons; this was especially true when working on the whiteboard or using the projector. In this way, students could see the board/projected information, and the teacher could watch over the students. Students in these three languages then returned to their desks for individual seatwork and peer work. In some ways cluster seating represented an unrealised ideal of students working together, following policy recommendations for more interactive classrooms, while floor seating was a realisation of practical considerations such as visibility and classroom management with the integration of instructional technology.

### Activity Types

The most common activities were conducted in whole class teacher-fronted participation patterns: teacher questioning (teacher-led question and answer with short student replies), teacher exposition (explanation), joint work (with the teacher and students working on something together such as taking turns reading from a text) and drill and practice. The latter was most common in Malay and Tamil lessons. Joint work was most common in Chinese lessons. Choral reading was common only in English lessons although used occasionally by teachers in the other languages. The most common activity type for each language is shown in bold in Table 10.4.

**Table 10.3** Frequency of physical arrangement in classrooms (%)

	English	Chinese	Malay	Tamil
Clusters	51.9	58.5	74.4	69.5
Floor seating	28.6	11	2.6	13.6
Other <sup>a</sup>	15.6	9.8	0	5.1
Single columns	0	17.1	15.4	5.1
Double columns	3.9	3.7	7.7	6.8
Learning centres	0	0	0	0
Free movement	0	0	0	0

<sup>a</sup>‘Other’ physical arrangements usually involved students standing (e.g., while singing a song, doing choral reading or reciting). In a few cases ‘other’ indicated mixed arrangements such as cluster seating with limited ‘free movement’ for students to get materials, consult with other groups or go up to the teacher to ask questions. A few lessons used triple column seating though this was quite rare

Student reporting typically was done following peer work. Since there was little peer work, it follows that there was little student reporting. Teacher correction and answer checking usually followed seatwork. Since seatwork was used in less than 20% of all participation patterns – especially low in Chinese – it is perhaps not surprising to see little of this. In addition, students in P1 and P2 are still developing basic literacy skills along with the ability to read and write independently; therefore, individual writing, silent reading and peer correction were used quite infrequently. Activities with the potential to integrate more speaking and listening – e.g., role play, games, sharing/telling (based on student’s own experiences), decision-making (in which a decision must be made based on information presented), information gap/jigsaw (in which students are not initially given the same information and thus must work to describe, explain and provide details) or teacher-led elicitation and discussion (which includes more substantive exchange of ideas) – were rare or non-existent. These types of activities can be important for language learning as they not only engage students in expressing their own ideas and talking about their own experiences, they also create opportunities for more extended turns, greater student output and more linguistically complex utterances. (For discussion, see, e.g., Cazden 2001; Nystrand 1997; Pica et al. 2006; Van den Branden 2000.)

### Teacher Questioning

A prominent activity across all four languages was teacher questioning. Though not the most common activity in any language, it appears in the top three for all languages and was regularly interspersed with other activities in lessons. For example, in a P1 English lesson, the teacher and students engaged in choral reading – a common activity for English. Together they read the story *Whose Hooves*. This was followed by teacher questioning with the teacher asking students to identify animals seen in the pictures of the book. Consistent teacher questions such as “What’s this?”



**Table 10.4** Frequency of classroom activity types (% of participation pattern)

	English	Chinese	Malay	Tamil
T questioning	10.7	12.6	14.8	10
T exposition	9.3	15.5	7.4	5.6
Joint work (teacher and students)	14	<b>17.2</b>	5.7	11.1
Drill and practice	8	9.2	<b>24.6</b>	<b>27.8</b>
Choral reading/recitation	<b>14.7</b>	5.7	3.3	3.3
Student reporting	8	8	7.4	3.3
T correction/answer checking	4.7	4.6	9	6.7
Writing	3.3	2.9	4.9	0
Role play/drama	2.7	2.9	1.6	1.1
Decision-making	3.3	4.6	3.3	3.3
Game	0.7	3.4	4.9	0
Brainstorming	2	0.6	1.6	4.4
Sharing/telling	1.3	1.1	1.6	1.1
Peer editing/correction	0.7	4	1.6	0
Reading silent	0	0.6	0.8	1.1
Free choice	0.7	0	0	0
T led elicitation and discussion	0	0	0	3.3
Information-gap task/jigsaw	0	0	0	1.1
Assessment	0	0	0	1.1
Others	16	6.9	7.4	15.6

led to very short student responses (e.g., “Goat”). The exchanges followed an initiation-response-evaluate (IRE) pattern (Mehan 1979) with teacher and student turns alternating except in one instance when a student asked “Teacher, why the baby one don’t have?” referring to one of the pictures and asking why the baby animal didn’t have horns. At that point another student replied “It’s because they haven’t grown up”. This was followed by the teacher commenting, “Yes...horns have not grown out yet”. In this case, the student question and the other student’s reply were two of the few instances when student comments extended beyond a few words. Throughout 492 turns in the lesson, only 14 student turns were longer than 5 words. All of these were either student self-initiated questions (6 examples), self-initiated comments based on personal experience or giving additional information (3 examples) (e.g., after the teacher pointed out the hill in a picture, one student commented that her brother had climbed up a hill) or responses to teacher questions that asked for an explanation (5 examples) (e.g., “What are hooves for? Can someone tell me?” to which a student replied, “The hooves some are .. for climbing, some for trekking, some are for other things”).

Similarly, in a P2 Chinese language lesson, the teacher asked the students to look out the school window and describe what they saw as a pre-reading activity. An extended IRE sequence of 58 turns ensued. The first eight turns, translated into English, are shown in Example 10.1 and are representative of the sequence as a whole. As seen in the example, student replies were quite brief throughout.

Example 10.1: P2 Chinese Pre-reading<sup>3</sup>

- |   |           |   |
|---|-----------|---|
| 1 | Teacher   | Everyone look out of the window, what do you see in the sky?                    |
| 2 | Student 1 | White cloud   |
| 3 | Teacher   | White cloud, what else?   |
| 4 | Student 2 | Sky   |
| 5 | Teacher   | What is the colour of the sky?  |
| 6 | Student 3 | Blue  |
| 7 | Teacher   | Sky is blue and the cloud is white. How about the weather? Good or bad weather? |
| 8 | Student 4 | Good weather  |

Similar interactions occurred in Malay and Tamil lessons. For example, a P1 Malay lesson started with a song about free time activities, followed by teacher questioning on the students' free time activities which elicited short student responses (e.g., "swimming", "watching TV"). Subsequently the class discussed a story they had read previously with more teacher questioning and short student responses. While revisiting the story, the teacher incorporated the students' own experiences into the discussion (e.g., Example 10.2, turn 9, "What activities can we do on the beach?"), keeping the students engaged while covering vocabulary related to their daily lives, but with short student replies.

## Example 10.2: P1 Malay Lesson, Pre-reading

- |    |           |  |
|----|-----------|--|
| 1  | Teacher   | The houses, buildings or perhaps the school. Okay, so can paint. Ok, can paint during free time. Next, you know what is this picture? <sup>4</sup>   |
| 2  | Student 1 | River  |
| 3  | Teacher   | River? Really river?   |
| 4  |           | (inaudible students' voice)  |
| 5  | Teacher   | Fish... (prompting students)   |
| 6  | Student 2 | Fishing...   |
| 7  | Teacher   | Bea... (prompting students)  |
| 8  | Students  | Beach...   |
| 9  | Teacher   | Beach. Ok, the beach. This is a beach right, Azlinda? This is a beach, right? Below is water right? Sea water. See this. This is the sea water and beaches. What activities can we do on the beach? Who knows? |
| 10 | Student 3 | Swimming...  |
| 11 | Student 4 | Aah...build...   |

<sup>3</sup>All examples from Chinese, Malay and Tamil lessons are translated from the MT language to English for this chapter. Translations are for gist/main meaning for the sake of easy reading.

<sup>4</sup>A common question form in Singapore English (Leimgruber 2011).

- 12 Teacher Build ... build what, build what ah?  
 13 (inaudible student's voice)  
 14 Teacher Build what? Sandcastle. Natasha,<sup>5</sup> you know what is  
 sandcastle? What?  
 15 Natasha Sandcastle...  
 16 Teacher Sandcastle. Very Good. What else, Omar?  
 17 Omar Pitch tents...  
 18 Teacher Pitching the tent. We camped. What next?  
 19 Student 7 Swimming...  
 20 Teacher Swimming. Well done. Fishing

Example 10.3 is excerpted and translated from a P2 Tamil lesson which started with teacher questioning about common games and toys. This was followed by pair reading of a short text (more common in Tamil lessons than in the other languages), with students taking turns reading page by page and the teacher moving around the room correcting vocabulary and pronunciation.

#### Example 10.3: P2 Tamil Lesson, Pre-reading

- 1 Student 1 Toy cycle  
 2 Teacher Toy cycle. These all belongs to the vehicle category. All are  
 travelling things. Sam...  
 3 Samuel Winnie the Pooh!  
 4 Teacher Winnie the Pooh! The bear toys type, right? The toy bears.  
 Teddy bear. Winnie the Pooh, okay? These are called the toy  
 bears. Okay?  
 5 Student 3 Winnie the Pooh very hard to carry, very big  
 6 Teacher No, there are small ones. There are small Winnie the Poohs.  
 If you go into my room, you will find it in a box. Since I am  
 not able to carry the box, I left it there. There are, there are  
 small toy bears. Okay?  
 7 Student 4 Animals  
 8 Teacher Aa...Animals. Okay. Aa...These days you can find toys like  
 .. what you call them aa...Dalmatians. Hundred and One  
 Dalmatians. These come in huge forms. Then like Mickey  
 Minnie...aa...  
 9 Students Donald! Donald!  
 10 Teacher Aa... Donald! Right? Okay, all these are animal toys. Okay?

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<sup>5</sup>Where student names were used in lessons, pseudonyms are given for this chapter. Otherwise individual students are identified only as Student 1, Student 2, etc. to indicate that same/different students were replying to teacher questions and comments.

Thus, looking across all lessons in all four languages, we find common participation, activity and discourse patterns. In general, the ways in which the teachers handled the classroom discourse led to little in the way of student production or student expression of their own ideas or experiences, despite emphases on oracy in the syllabi. Requests that students explain their ideas were limited to instances when the teacher did not understand what the students said or meant; students were not asked to expand on their ideas for the benefit of other students. Similarly, students were not asked to reply to or comment on the ideas of other students as teachers consistently took on the roles of leader and mediator in classroom conversations. Explanations were given by the teachers, even explanation of student ideas (as in Example 10.3, turn 4).

### *Exercise of Authority*

The picture that begins to emerge from the findings above is of lessons which consistently engaged students in classroom interaction, but only through strict turn taking during teacher questioning and teacher-fronted whole class participation patterns. Rather than enhancing learning, these patterns, coupled with the physical arrangement of classrooms, were found to be a dominant classroom management strategy. There was limited evidence of teachers employing either rewards-based or punishment-based classroom management strategies with any frequency (Table 10.5). Students were briefly praised within IRE sequences (e.g., “Very good”,

**Table 10.5** Use of reward- and punishment-based classroom management (% of participation pattern)

		Rewards	Punishment
English	Almost never	32.5	<b>62.3</b>
	Infrequently	<b>35.1</b>	32.5
	Sometimes	24.7	5.2
	Almost always	7.8	0
Chinese	Almost never	<b>32.9</b>	<b>48.8</b>
	Infrequently	29.3	42.7
	Sometimes	29.3	7.3
	Almost always	8.5	1.2
Malay	Almost never	<b>50</b>	<b>93.6</b>
	Infrequently	25.6	6.4
	Sometimes	20.5	0
	Almost always	3.8	0
Tamil	Almost never	<b>45.8</b>	<b>72.9</b>
	Infrequently	18.6	20.3
	Sometimes	28.8	5.1
	Almost always	6.8	1.7

Example 10.2), but seldom outside of these exchanges; punishment was also rare. Instead brief pointed instructions (“Sit properly!” “All look forward and don’t talk.”) as well as more indirect comments on behaviour (“It will be good if one person speaks.” “Today is our first lesson to go on the web, yet someone quarrel [sic], you do not want to co-operate?”) were common.

### ***Learning Environment***

Five other factors related to the classroom learning environment and highlighted in recent policy initiatives were investigated: encouragement of interaction, risk-taking, problem-solving, collaboration and independent learning. These were coded on a four-point Likert scale ranging from ‘always discourages’ to ‘always encourages’ within each participation pattern. The findings on learning environment support the initial picture of lessons, which are more teacher than student centred with little encouragement of student interaction or risk-taking in learning and few opportunities for problem-solving, collaboration or independent learning.

#### **Encouraging Interaction and Risk-Taking**

There were some small but noteworthy differences across languages in terms of encouraging interaction and risk-taking (Table 10.6). In English and Malay, encouragement of interaction and risk-taking was spread across ‘always discourages’ to ‘always encourages’, reflecting individual teacher differences, with ‘sometimes encourages’ the most prominent. English lessons tended to encourage risk-taking slightly more, while Malay lessons tended to encourage interaction slightly more. Tamil lessons tended to be slightly more discouraging of interaction as compared with English and Malay but the most encouraging of risk-taking across all four languages. This was due to Tamil teachers consistently asking students to first read out from a text and try spelling and pronunciation, with teacher modelling and correction provided after student attempts. In classes for the other languages, teachers tended to first model and then ask students to replicate teacher reading and pronunciation with explicit information on spelling. Chinese lessons were most likely to discourage both interaction and risk-taking, with more participation patterns overall that ‘always’ and ‘sometimes’ discouraged interaction and risk-taking as teachers consistently led all activities, with students following along.

#### **Encouraging Collaboration, Problem-Solving and Independent Learning**

Across all four language collaborations, problem-solving and independent learning were uniformly discouraged in terms of the types of activities used (Table 10.7). For example, there were very few activities which required students to collaborate with

**Table 10.6** Encouraging interaction and risk-taking in learning (% of participation patterns)

		Interaction	Risk-taking
English	Always discourages	16.9	13
	Sometimes discourages	29.9	20.8
	Sometimes encourages/facilitates	<b>35.1</b>	<b>46.8</b>
	Always encourages/facilitates	18.2	19.5
Chinese	Always discourages	19.5	22
	Sometimes discourages	<b>43.9</b>	<b>40.2</b>
	Sometimes encourages/facilitates	32.9	32.9
	Always encourages/facilitates	3.7	4.9
Malay	Always discourages	17.9	20.5
	Sometimes discourages	20.5	23.1
	Sometimes encourages/facilitates	<b>38.5</b>	<b>41</b>
	Always encourages/facilitates	23.1	15.4
Tamil	Always discourages	18.6	8.5
	Sometimes discourages	<b>39</b>	27.1
	Sometimes encourages/facilitates	33.9	<b>57.6</b>
	Always encourages/facilitates	8.5	6.8

each other or to engage in independent learning as most activities required students to replicate what was presented by the teacher. Similarly, students did not have to engage in problem-solving as teachers gave frequent and extensive explanations while emphasising the ‘product’ (i.e., the correct answer) rather than the process of finding an answer. For example, in one P2 Chinese lesson, the teacher started by projecting a reading passage on the screen and then asking the students “What is our lesson?” The students read the title aloud and the teacher then asked if they had read the short passage: “Did you read through just now?” When the students replied, “Yes”, the teacher asked, “You can understand all the words?” When the students replied, “No”, the teacher said that she would clarify. Subsequently the teacher played a recording, so that students could listen to the passage while reading from the screen, followed by the teacher asking questions and explaining. There were very few opportunities for students to try to work through their own misunderstandings, to find information on their own or to collaborate with each other in exploring their ideas. Though this example is from Chinese, these types of interaction were common across all four languages and all lessons.

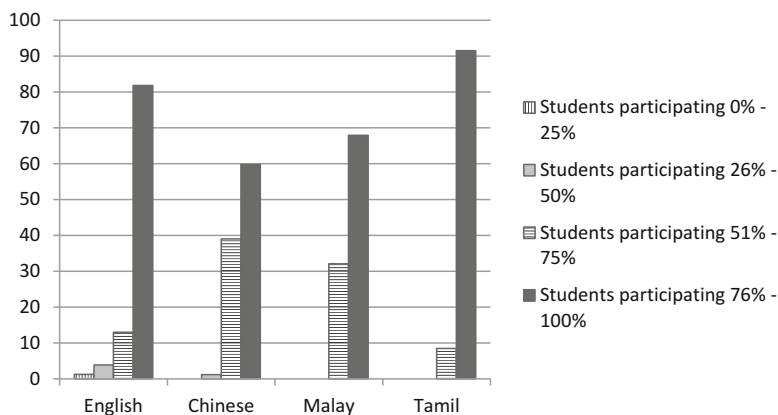
### *Student Engagement*

While it is true that very little disciplinary action was seen or was needed, it is also true that ‘compliance’ does not necessarily indicate ‘engagement’. Student engagement has been a focus of curriculum innovations in Singapore for more than a

**Table 10.7** Encouraging collaboration, problem-solving and independent learning (% of participation patterns)

		Collaboration	Problem-solving	Independent learning
English	Almost never	<b>62.3</b>	<b>90.9</b>	<b>50.6</b>
	A little	16.9	3.9	32.5
	Sometimes	9.1	5.2	13
	Almost always	11.7	0	3.9
Chinese	Almost never	<b>48.8</b>	<b>92.7</b>	35.4
	A little	24.4	7.3	<b>46.3</b>
	Sometimes	24.4	0	17.1
	Almost always	2.4	0	1.2
Malay	Almost never	<b>62.8</b>	<b>97.4</b>	<b>55.1</b>
	A little	7.7	0	21.8
	Sometimes	1.3	1.3	9
	Almost always	28.2	1.3	14.1
Tamil	Almost never	<b>66.1</b>	<b>83.1</b>	<b>50.8</b>
	A little	11.9	16.9	25.4
	Sometimes	15.3	0	22
	Almost always	6.8	0	1.7

decade. In particular the SEED (Strategies for Effective Engagement and Development) initiative inaugurated in 2004 was intended to enhance school-based curriculum development to meet diverse students' needs and enhance engagement across the curriculum (MOE 2005b). While student engagement is considered to be a positive feature in education, it can be difficult to operationalise. Skinner and Belamont point out it includes both behavioural and emotional components (1993, p. 572). They suggest that ongoing participation and signs of affirmative emotion indicate engagement. Using this as a guideline, our observational data indicate high participation, i.e., most students were participating in the assigned activity and on task most of the time (Fig. 10.2). Often, however, this involved merely listening to the teacher, especially during whole class teacher-fronted activities. Nystrand and Gamoran refer to this as "procedural engagement" because students are engaged in "the motions of schooling" (1991, p. 262), while Bloome and Argumedo (1983) refer to this sort of compliance as "procedural display". Enjoyment, however, measured as visible displays of enjoyment such as smiling or laughing, was lower (Table 10.8). Though students were more likely than not to show enjoyment, the results are somewhat disappointing given the emphasis on greater student engagement in recent policy initiatives, the low threshold of the measure (a simple smile constituted 'enjoyment') and the variety of materials and activities intended to enhance student enjoyment and engagement.



**Fig. 10.2** Student on-task behaviour (%)

**Table 10.8** Evidence of enjoyment (% of participation pattern)

	Almost never	Infrequently	Sometimes	Almost always
English	5.2	18.2	37.7	39
Chinese	0	6.1	37.8	56.1
Malay	6.4	3.8	59	30.8
Tamil	0	8.5	33.9	57.6

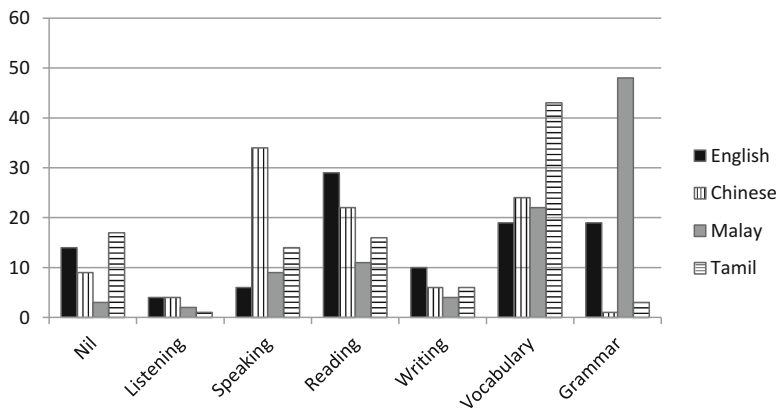
## *Lesson Content*

While there were many similarities in terms of how lessons were structured, as above, there were differences in lesson content. The differences included language skill focus (e.g., reading, vocabulary), teacher materials (e.g., textbook, internet), and source of authoritative knowledge (e.g., teacher, textbook, data for students to examine) and student-produced work (e.g., short oral responses, cut and paste, sustained written text).

## **Language Skill Focus**

For the most part, skill foci reflected differences in the syllabi and curricula of the different languages. Reading was prioritised in English, speaking in Chinese, grammar in Malay and vocabulary in Tamil (Fig. 10.3). For example, the STELLAR curriculum for English emphasises foundational skills in reading and the use of Shared Book Approach (based on Holdaway 1979). Other language skills such as grammar and vocabulary are taught based on the reading materials. The new Chinese curricula are intended to encourage more speaking and oral communication than in the past (see Liu and Zhao 2010; Zhao and Shang, this volume). Although the Malay





**Fig. 10.3** Language skill focus (% of activities)

syllabus does not necessarily stress the teaching of grammar above other skills, it is possible that teachers stressed grammar because most students in Malay classes also use Malay at home and teachers feel these students need to learn more formal grammar in school. As the report of the Malay Language Review Committee states "... there was a general consensus that grammar needed to be taught explicitly for students to be competent ML users. There were suggestions that the teaching of grammar to be made more contextualized to help students to understand the importance of grammar in language acquisition" (MOE 2005c, p. 68).

Similarly, the Tamil syllabus (MOE 2007c) does not stress vocabulary over other skills, but teachers emphasised the teaching of vocabulary along with the correct pronunciation of vocabulary items in lessons. This may be due to the diglossic nature of Tamil: In these lessons teachers emphasised the distinctions between the informal variety used at home and the more formal variety expected at school for which vocabulary and pronunciation especially relevant for examinations. This is particularly interesting in light of distinctions between Standard Spoken Tamil and Written Tamil which teachers are expected to address but do not always produce accurately themselves (see Lakshmi, this volume).

We also noted that teachers did not refer to other languages or students' knowledge of other languages and language skills in other language in the lessons. For example, English teachers did not refer to reading, speaking or listening skills in other languages; MT teachers did not refer to knowledge of English, other MTs or any other language varieties in which the students might be conversant.

### Teacher Materials and Source of Authoritative Knowledge

Although there were differences in skill foci, the presentation of information in terms of materials used and authoritative knowledge were similar across languages. Table 10.9 shows the materials used by teachers during activities in lessons. Most

**Table 10.9** Teacher materials (% of activities)

	English	Chinese	Malay	Tamil
Nil	27	33	55	36
Textbook/activity book/workbook	26	05	09	17
Worksheet	0	01	02	07
PowerPoint/Internet	11	14	16	12
Class-produced materials	23	13	06	14
Manipulatives	01	04	02	0
Artwork	0	0	0	01
Others	13	30	10	13

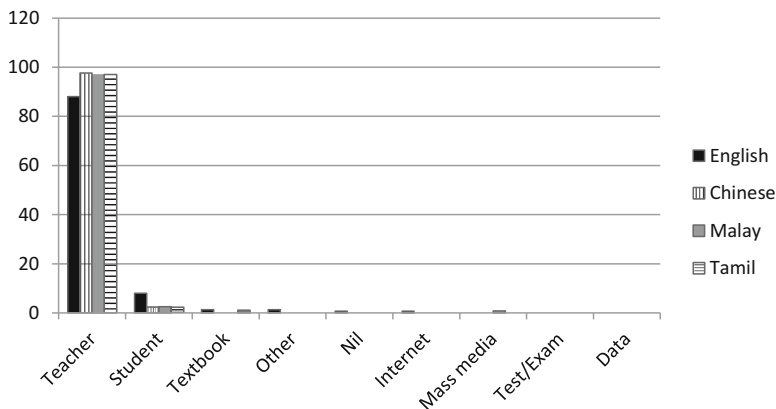
frequently teachers used no materials at all. Instead they relied on their own knowledge, positioning themselves as the primary source of authoritative knowledge for the subject (rather than, for example, textbooks, stories, news broadcasts or other materials which student could access and evaluate independently). In addition, across all languages knowledge was represented as something to reproduce, rather than something to interpret or apply. Thus, when addressing the question ‘Where does the knowledge come from: teacher, textbook, students, other sources?’ the answer was consistently ‘the teacher’ (Fig. 10.4), and students were, for the most part, expected to reproduce this knowledge to indicate learning.

### Student-Produced Work and Assessment of Learning

Excluding classroom management and (teacher) instruction activities (in which there was no student-produced work), other activities tended to require short oral responses across all language as discussed above and shown in the examples. Students also produced multiple-choice responses or short written responses (on worksheets) and multimodal texts (in a few cases) and read aloud (in all four languages). There was limited use of cut and paste, drawing, physical displays and music, as well as some ‘other’ (unspecified) types of produced work. Although these uses of different types of student-produced work were limited, they did indicate attempt to bring variety into lessons.

From our observations, documentation of student learning was done solely through teacher assessment of lesson products (e.g., marking of worksheet responses), with no involvement of students in assessment of their own learning and no documentation or discussion of the processes of learning. Teachers reported that activities such as show-and-tell or group writing, conducted as part of class activities and assessed by rubrics, were used on a scheduled basis. This seemed to be true across all four languages.

Simply put, students were expected to learn the content taught by the teacher, in the ways that teachers proposed, with little reflection on learning processes or formative assessment, and this was true across all subjects and both grade levels. This type of teaching allowed teachers to cover the specified content efficiently, to move



**Fig. 10.4** Source of Authoritative Knowledge (% of activities)

ahead with lessons with minimal disruption and to maintain order in the classroom. The degree of similarity across subjects – despite different subject syllabi with different foci – speaks to a similarity of perspective on what it means to teach and learn and suggests a common Singapore pedagogy which is difficult to change substantially through top-down policy initiatives. However, there were several ways in which policy innovations clearly did influence classroom teaching, including use of tools and materials (ICT, textbooks), changes in physical environment and, to some extent, teaching strategies. This topic is taken up in the final discussion, below.

## Discussion and Conclusion

Our analysis, using a common coding scheme across all four languages, shows more similarities than differences in language instruction in the early primary grades in Singapore. The lessons were similar in the way they were structured, the ways in which teachers presented information and the ways in which teachers managed the student interactions. Skill foci, on the other hand, showed some distinction across the four languages. These can be traced to the different language syllabi and curricula. While there are broad calls to emphasise oral skills in all languages at lower primary, there are also recognised differences in student needs and backgrounds. Thus, for example, the STELLAR curriculum for English is centred around reading of children’s literature as we saw in our data. In this curriculum, oral and other skills are intended to be linked to reading. This is expected to give all children, regardless of home language, a strong foundation in English – a foundation on which they can build as years go by (MOE 2008–2014). In contrast, grammar was emphasised in Malay language classes. According to the MLCPRC (MOE 2005c, p. 68), there is a consensus among Malay language teachers that grammar needs to be taught explicitly even among children who are already Malay speakers.

Another similarity across languages was that interaction during lessons was controlled fairly tightly by all teachers. However, looking more closely, we see noteworthy differences with English and Malay being more likely to encourage than discourage interaction, while Chinese and Tamil tended to be more discouraging. Risk-taking in learning was most discouraged in Chinese and most encouraged in Tamil, though the latter was largely due to encouraging students to try out spelling and pronunciation during reading.

Considering the alignment of lesson pedagogy with broad, national policy, there was little evidence of some of the aspects of learning that are encouraged by policy initiatives such as *Teach Less, Learn More* and the PERI report. For example, there was little evidence of frequent or sustained attempts “to develop interpersonal, collaborative and communication skills”, “to help students find deeper meaning in their learning” or “to emphasize the process of learning” (over product-based formal assessment) – all part of the key thrusts of the PERI recommendations (MOE 2009, p. 29). Despite repeated calls for more differentiated instruction and greater student engagement (Tharman 2006, echoed in the PERI report), whole class teacher-fronted interaction was the overwhelming choice for lessons with almost no opportunities for students to explore new information on their own, document their own learning or act as authoritative knowledge bearers. Although whole class teacher-fronted interaction is certainly common in other settings, the predominance of this interaction pattern along with limited variety in activity types and especially low usage of role plays, decision-making or information-gap tasks, games, brainstorming or discussion to elicit students’ opinions and experiences suggests a strong preference for teacher control of learning and emphasis on teacher authority. This in turn suggests a common and persistent Singaporean pedagogy which might be grounded in a local culture of learning as Curdt-Christiansen and Silver (2012) have previously argued based on their analysis of English language lessons.

The emphasis on explicit teaching of skills and limited classroom interaction is linked to a broader trend of treating language as academic content. While the materials and foci of all lessons were clearly on language, the dominant activities used (teacher questioning, teacher exposition, joint work and drill and practice) suggest a pedagogy based on general educational principles rather than being specific to language learning. Contemporary language and literacy learning theory – whether for language learners in first or second language or for bilinguals – recommends that time and space be given for active student involvement in interaction with teachers and peers (e.g., García 2009; Mackey and Goo 2007; Martin 2006; Riches and Genesee 2006). The New London Group has suggested that developmental literacy must include not only overt instruction in literacy practices, as we see in our data to some extent, but also authentic situated practice, critique of practices in order to understand social context, as well as purposes and practices which allows student to move from one context to another, experiment and innovate (Cope and Kalantzis 2000). In addition, awareness of different task types and the differential opportunities they offer for language learners in classroom has become a rich area of research and pedagogical innovation (Bygate et al. 2001; East 2012; Johnson 2003; Van den Branden et al. 2009; Willis 1996), but this was not evident from the limited types of

activities used in lessons – activities which by and large could have been used for studying any subject.

Finally, a notable aspect of the lessons was the lack of any evidence of linkage across languages or attempts to view and develop students' bilingual competence holistically. Teachers did not refer to student learning in other subjects (e.g., EL teachers referring to similar skills being learned in MT lessons or vice versa). Skills were addressed in an isolated fashion, as if the students were not also learning to read, write, speak and listen in another language. Topics were also distinct, with no common topics addressed in EL and MT lessons.

Cummins (1979) has suggested positive carry-over of academic skills from one language to another (see also Rolstad and MacSwan 2008). García (2009, p. 351) has recommended that students must be immersed in “reading and writing practices in two languages” and that students be “*apprenticed* as a member of biliterate social practices”. These suggestions might argue against the sort of siloed approach to language instruction that we found in our data. More co-referencing of lessons, skills and topics with opportunities for bilingual language use and more cooperation of EL and MT teachers might facilitate development of students' overall academic and linguistic competence. In addition, teachers very rarely used or encouraged code-switching which might have facilitated communication while recognising students' expertise in another language. There was some evidence of use of English in MT lessons, but this was so limited that it did not surface in the coding reported in this chapter. Although there have been some calls for use of a ‘bilingual method’ (especially for English and Chinese, see Goh and Lim, this volume), teachers continue to show ambivalence to these suggestions (see Vaish, this volume; 2012).

To conclude, we find that these language lessons show a great deal of uniformity, with only a few distinctions based on different language syllabi and little to distinguish language lessons from teaching in other content areas. At the same time, we recognise that research across a wider spectrum and greater quantity of language lessons is needed. We submit that a particularly rich area for future research is in investigation of students' bilingual competencies and options for teachers to share knowledge of students as well as their own expertise across languages.

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## References

- Alsagoff, L. (2011). The development of English in Singapore: Language policy and planning in nation building. In E.-L. Low & A. Hashim (Eds.), *English in Southeast Asia: Features, policy and language in use* (pp. 137–154). Amsterdam: John Benjamins.

- Bloome, D., & Argumedo, B. (1983). Procedural display and classroom interaction: Another look at academic engaged time. In T. Erg (Ed.), *Middle school research: Selected studies*. Columbus: National Middle Schools Association.
- Bygate, M., Skehan, P., & Swain, M. (Eds.). (2001). *Researching pedagogic tasks: Second language learning, teaching and testing*. Essex: Pearson Education.
- Cazden, C. (2001). *Classroom discourse: The language of teaching and learning* (2nd ed.). Portsmouth: Heinemann.
- Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy learning and the design of future societies*. New York: Routledge.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49, 222–251. doi:10.3102/00346543049002222.
- Curd-Christiansen, X.-L., & Silver, R. E. (2012). Educational reforms, cultural clashes and classroom practices. *The Cambridge Journal of Education*, 42(2), pp. 141–161. ISSN 1469-3577. doi:10.1080/0305764X.2012.676631. <http://centaur.reading.ac.uk/view/creators/90005559.html>
- Curd-Christiansen, X.-L., & Silver, R. E. (2013). New wine into old skins: The enactment of literacy policy in Singapore. *Language and Education*, 27(3), 246–260. doi:10.1080/09500782.2012.704046.
- Dixon, Q. (2005). Bilingual education policy in Singapore: An analysis of its sociohistorical roots and current academic outcomes. *International Journal of Bilingual Education and Bilingualism*, 8(1), 25–47. doi:10.1080/jBEB.v8.i1.pg25.
- East, M. (2012). *Task-based language teaching from the teachers' perspective: Insights from New Zealand*. Amsterdam: John Benjamins.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York: Teachers College Press.
- García, O. (2009). *Bilingual education in the 21st century: A global perspective*. Malden: Wiley-Blackwell.
- Goh, C. T. (1997). Speech by Prime Minister Goh Chok Tong at the opening of the 7th International Conference on Thinking on Monday, 2 June 1997, at 9.00 am at the Suntec City Convention Centre Ballroom. Singapore: MOE. Retrieved from <http://www.moe.gov.sg/media/speeches/1997/020697.htm>
- Gopinathan, S. (2007). Globalisation, the Singapore developmental state and education policy: A thesis revisited. *Globalisation, Societies and Education*, 5(1), 53–70. doi:10.1080/14767720601133405.
- Gopinathan, S., Ho, W. K., & Saravanan, V. (2004). Ethnicity management and language education policy: Towards a modified model of language education in Singapore schools. In L. A. Eng (Ed.), *Beyond rituals and riots: Ethnic pluralism and social cohesion in Singapore* (pp. 228–257). Singapore: Institute of Policy Studies and Eastern Universities Press.
- Gutierrez, K. D., Bien, A. C., Seland, M. S., & Pierce, D. M. (2011). Polylingual and polycultural learning ecologies: Mediating emergent academic literacies for dual language learners. *Journal of Early Childhood Literacy*, 11(2), 232–261. doi:10.1177/1468798411399273.
- Hayward, L., Priestly, M., & Young, M. (2004). Ruffling the calm of the ocean floor: Merging research, policy and practice in Scotland. *Oxford Review of Education*, 30(3), 397–415. doi:10.1080/0305498042000260502.
- Holdaway, D. (1979). *The foundations of literacy*. Sydney: Ashton Scholastic.
- Johnson, K. (2003). *Designing language teaching tasks*. New York: Palgrave Macmillan.
- Lefstein, A. (2008). Changing classroom practice through the English National Literacy Strategy: A micro-interactional perspective. *American Educational Research Journal*, 45(3), 701–737. doi:10.3102/0002831208316256.
- Leimgruber, J. (2011). Singapore English. *Language and Linguistics Compass*, 5(1), 47–62. doi:10.1111/j.1749-818X.2010.00262.x.
- Leimgruber, J. (2012). Singapore English: An indexical approach. *World Englishes*, 31(1), 1–14. doi:10.1111/j.1467-971X.2011.01743.x.

- Liu, Y.-B., & Zhao, S. H. (2008). Chinese language instruction in Singapore primary school classrooms: A comparative study. *Pedagogies: An International Journal*, 3, 168–186.
- Liu, Y.-B., & Zhao, S. H. (2010). Changing Chinese language pedagogy in Singapore primary classroom. *North Star: A Publication for Educational Practitioners*, 2(1), 11–24.
- Mackey, A., & Goo, J. (2007). Interaction research in SLA: A meta-analysis and research synthesis. In A. Mackey (Ed.), *Conversational interaction in second language acquisition* (pp. 407–452). Oxford: Oxford University Press.
- Martin, J. (2006). Metadiscourse: Designing interaction in genre-based literacy programmes. In R. Whittaker, M. O'Donnell, & A. McCabe (Eds.), *Language and literacy: Functional approaches* (pp. 95–122). London: Continuum.
- Mehan, H. (1979). *Learning lessons*. Cambridge: Harvard University Press.
- MOE. (2001). *English Language Syllabus 2001 for Primary and Secondary Schools*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/english-language-and-literature/files/english-primary-secondary.pdf>
- MOE. (2005a). *Contact: The Teachers' Digest*, 3. Retrieved from [www.moe.edu.sg/corporate/contactprint/pdf/contact\\_oct05.pdf](http://www.moe.edu.sg/corporate/contactprint/pdf/contact_oct05.pdf)
- MOE. (2005b). *Contact: The Teachers' Digest*, 2. Retrieved from [www.moe.edu.sg/corporate/contactpring/contact\\_Jul05.pdf](http://www.moe.edu.sg/corporate/contactpring/contact_Jul05.pdf)
- MOE. (2005c). *Report of the Malay Language Curriculum and Pedagogy Review Committee [MLCPRC]*. Singapore: Author.
- MOE. (2006). *Chinese Language 'B' syllabus*. Singapore: Author.
- MOE. (2007a). *2007 Primary Chinese Language syllabus*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/mother-tongue-languages/files/chinese-primary-2007.pdf>
- MOE. (2007b). *Sukatan Pelajaran Bahasa Melayu Sekolah Rendah 2008*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/mother-tongue-languages/files/malay-primary-2008.pdf>
- MOE. (2007c). *Tamil Language Primary syllabus*. Singapore: MOE. Retrieved from <http://www.moe.gov.sg/education/syllabuses/mother-tongue-languages/files/tamil-primary-2008.pdf>
- MOE. (2008a). *Enhanced programmes by Special Assistance Plan Schools to enrich students' learning of Chinese Language and values [Press release]*. Retrieved from <http://www.moe.gov.sg/media/press/2008/02/enhanced-programmes-by-special.php>
- MOE. (2008b). *More support for school's "Teach Less, Learn More" initiatives [Press release]*. Retrieved from <http://www.moe.gov.sg/media/press/2008/01/more-support-for-schools-teach.php#annex-b>
- MOE. (2008–2014). *Strategies for English language learning and reading*. Retrieved from <http://www.stellarliteracy.sg/>
- MOE. (2009). *Report of the Primary Education Review and Implementation Committee*. Singapore: Author.
- MOE. (2010a). *English Language syllabus 2010: Primary & Secondary (Express/Normal [Academic])*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/english-language-and-literature/files/english-primary-secondary-express-normal-academic.pdf>
- MOE. (2010b). *Nurturing our young for the future: Competencies for the 21st century*. Retrieved from <http://www.moe.gov.sg/committee-of-supply-debate/files/nurturing-our-young.pdf>
- MOE. (2013). *Primary school education: Preparing your child for tomorrow*. Retrieved from <http://moe.gov.sg/education/primary/files/primary-school-education-booklet.pdf>
- MOE. (n.d.). *Primary school curriculum*. Retrieved from <http://www.moe.gov.sg/education/primary/curriculum/>
- Nystrand, M. (1997). Dialogic instruction: When recitation becomes conversation. In M. Nystrand, A. Gamoran, R. Kachur, & C. Prendergast (Eds.), *Understanding the dynamics of language learning in the English classroom* (pp. 1–29). New York: Teachers College Press.



- Nystrand, M., & Gamoran, A. (1991). Instructional discourse, student engagement and literacy achievement. *Research in the Teaching of English*, 25(3), 261–290.
- Pica, T., Kang, H., & Sauro, S. (2006). Information-gap tasks: Their multiple roles and contributions to interaction research methodology. *Studies in Second Language Acquisition*, 28, 301–338. doi:10.1017/S027226310606013X.
- Riches, C., & Genesee, F. (2006). Cross-linguistic and cross-modal aspects of literacy development. In F. Genesee, K. Lindholm-Leary, W. Saunders, & D. Christian (Eds.), *Educating English language learners: A synthesis of research evidence* (pp. 64–108). New York: Cambridge University Press.
- Rolstad, K., & MacSwan, J. (2008). BICS/CALP: Theory and critique. In J. M. Gonzalez (Ed.), *Encyclopedia of bilingual education* (pp. 62–65). Thousand Oaks: Sage.
- Shegar, C., & Thinnapan, S. (2007). Evaluation of Tamil grammar instruction in four Singapore schools: Implications for language pedagogy. In V. Vaish, S. Gopinathan, & Y. B. Liu (Eds.), *Language, capital, culture: Critical studies of language and education in Singapore* (pp. 227–248). Rotterdam: Sense Publishers.
- Silver, R. E. (2005). The discourse of linguistic capital: Language and economic policy planning in Singapore. *Language Policy*, 4(1), 47–66. doi:10.1007/s10993-004-6564-4.
- Silver, R. E., & Kogut, G. (2009). Teacher talk, pedagogical talk and classroom activities: Another look. *Educational Research Association of Singapore (ERAS) Conference, 2009: Unpacking teaching and learning through educational research*. Singapore: Educational Research Association of Singapore. Retrieved from <http://www.eras.org.sg/papers/2-3-11.pdf>
- Silver, R. E., Pak, S., & Kogut, G. (2010). *CIEPSS Coding scheme manual*. Singapore: Centre for Research in Pedagogy and Practice, National Institute of Education. Retrieved from <https://repository.nie.edu.sg/handle/10497/2911>
- Silver, R. E., Curdt-Christiansen, X.-L., Stinson, M., & Wright, S. (2013). Working through the layers: Curriculum implementation in language education. In Z. Deng, S. Gopinathan & C. K.-E. Lee (Eds.), *Globalization and the Singapore curriculum* (pp. 151–167). Singapore: Springer
- Singapore Department of Statistics. (2010). *Census of population 2010, Statistical release 1. Demographic characteristics: Education, language and religion*. Retrieved from <http://www.singstat.gov.sg/pubn/popn/C2010sr1/cop2010sr1.pdf>
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85(4), 571–581. doi:10.1037//0022-0663.85.4.571.
- Sripathy, M. (2007). Cultural scripts and literacy pedagogy: An analysis of the English language syllabus and classroom literacy lessons. In V. Vaish, S. Gopinathan, & Y. B. Liu (Eds.), *Language, capital, culture: Critical studies of language and education in Singapore* (pp. 73–102). Rotterdam: Sense Publishers.
- Stritikus, T. T. (2003). The interrelationship of beliefs, context, and learning: The case of a teacher reacting to language policy. *Language, Identity and Education*, 2(1), 29–52. doi:10.1207/S15327701JLIE0201\_2.
- Subhan, M. A. (2007). Planning for Malay language in education: Lessons of history and present ecology. In V. Vaish, S. Gopinathan, & Y. B. Liu (Eds.), *Language, capital, culture: Critical studies of language and education in Singapore* (pp. 157–174). Rotterdam: Sense Publishers.
- Tharman, S. (2004). Speech by Mr Tharman Shanmugaratnam, Minister for Education, at the MOE Work Plan Seminar 2004, on Wednesday, 29 September 2004 at 9:50 a.m. at the Ngee Ann Polytechnic Convention Centre. Retrieved from [www.moe.edu.gov.sg/media/speeches/2004/sp20040920.htm](http://www.moe.edu.gov.sg/media/speeches/2004/sp20040920.htm)
- Tharman, S. (2006). Speech by Mr Tharman Shanmugaratnam, Minister for Education and Second Minister for Finance, at the MOE Work Plan Seminar 2006, on Thursday, 28 September 2006 at 10.00 am at the Ngee Ann Polytechnic Convention Centre. Retrieved from <http://www.moe.gov.sg/media/speeches/2006/sp20060928.htm>



- Tupas, T. R. F. (2011). English-knowing bilingualism in Singapore: Economic pragmatism, ethnic management and class. In A. Feng (Ed.), *English language in education and societies across Greater China* (pp. 46–69). Bristol: Multilingual Matters.
- Vaish, V. (2012). Teacher beliefs regarding bilingualism in an English medium reading program. *International Journal of Bilingual Education and Bilingualism*, 15(1), 53–69. doi:10.1080/13670050.2011.594496.
- Van den Branden, K. (2000). Does negotiation of meaning promotes reading comprehension? A study of multilingual primary school classes. *Reading Research Quarterly*, 35(3), 426–443. doi:10.1598/RRQ.35.3.6.
- Van den Branden, K., Bygate, M., & Norris, J. M. (Eds.). (2009). *Task-based language teaching: A reader*. Amsterdam: John Benjamins.
- Wiley, C. H., Good, T. L., & McCaslin, M. (2008). Comprehensive school reform, instructional practices throughout a school year: The role of subject matter, grade level, and time of year. *Teachers College Record*, 110(11), 2361–2388.
- Willis, J. (Ed.). (1996). *A framework for task-based learning*. Harlow: Longman Addison-Wesley.
- Wong, R. Y. L. (2007). “Reading is usually a passage followed by a set of questions for the kids”: Primary 3 reading lessons in Singapore. In V. Vaish, S. Gopinathan, & Y. B. Liu (Eds.), *Language, capital, culture: Critical studies of language and education in Singapore* (pp. 103–116). Rotterdam: Sense Publishers.

# Chapter 11

## Culture Representation in Teachers' Talk: A Functional Analysis of Singapore's Chinese Classroom Discourse

Yanning Yang

### Introduction

According to the primary and secondary school syllabi, one of the major purposes of Chinese language teaching in Singapore is to inculcate Chinese culture and values in Chinese Singaporean youth (Ministry of Education [MOE] 1992, 2004, 2010). To cite one example, the primary school syllabus describes the objectives of Chinese culture teaching as follows: (1) to cultivate ethical concepts and practise them in students' lives and (2) to learn traditional festivals, customs, famous historical figures and historical stories (MOE 2007). However, the actual cultural content to be transmitted is only very briefly described in both the primary and secondary school syllabi, amounting to only a loose guideline for Chinese culture teaching. They provide no recommendations of specific targets and offer no suggestions of useful materials or techniques to guide teachers in the teaching of Chinese culture. Furthermore, the syllabi explicitly instruct teachers to determine how to teach cultural content by considering the language proficiency and intellectual capacity of their students. More importantly, teachers are required to restrict the teaching of culture to a certain extent to avoid the possible side effects of reducing the interest of their students in Chinese language itself (MOE 2002, 2007). The teacher in the classroom must decide what to teach, when to teach and how to teach Chinese culture.

There has been no empirical research investigating how Chinese culture is taught by Singaporean teachers. To fill this gap, this chapter examines how Chinese culture is represented in teachers' talk through an analysis of classroom discourse within a framework developed on the basis of systemic functional linguistics (SFL). Seventeen primary school Chinese lessons were observed and video-recorded for

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this purpose. Relevant recordings were then transcribed to generate a small corpus of classroom discourse for detailed qualitative analysis. The classroom discourse was closely read during and after the period of classroom observation to identify words related to Chinese culture and activities in the corpus. The deployment of cultural words and activities in the corpus was then analysed to show to what extent and for what purpose Chinese teachers included cultural content in their language teaching. The findings reveal how knowledge and norms of Chinese culture are conveyed by Singapore Chinese teachers in their classes, how these relate to the primary school syllabus and the numerous challenges teachers face in transmitting cultural content to their students.

### ***Purpose***

According to Martin and Rose, “a culture is realized as patterns of social interaction in each context of situation, which in turn are realized as patterns of discourses in each text” (2008, p. 9). On the basis of this relationship between culture and discourse, in this discussion, culture in a Chinese classroom is seen as being manifested by certain patterns of classroom discourse. As such, our analysis focuses on how Chinese culture is represented by teachers in Singapore through a detailed analysis of classroom discourse, analysing the way teachers’ talk is used in terms of how they explain cultural concepts and encode cultural knowledge. This research explores the representation of culture in teachers’ talk by examining classroom discourse from two perspectives. Firstly, it identifies the words related to Chinese culture in classroom discourse and analyses their grammatical functions within the clause. Secondly, it identifies classroom activities with special meanings in Chinese culture and interprets their contextual variables within the discourse. By examining the cultural words and activities in teachers’ talk, this chapter attempts to answer the following questions:

1. What is the nature of cultural content in Chinese lessons to which students are exposed?
2. What is the effect of cultural content on the classroom expression of Chinese teachers?
3. What are the strategies deployed by Chinese teachers to provide cultural information and demonstrate cultural behaviour?

### **Methodology**

The classroom discourse used in this study comes from a 1-year research project on the teaching of Chinese in Singapore’s Primary 1 and 2 (P1 and P2) classrooms from 2009 to 2010 (see also Silver et al., this volume). The classroom observations were undertaken in ten schools over a period of two semesters. Seventeen Chinese

classes were observed and video-recorded, resulting in a corpus of 17 transcripts of Chinese classroom discourse with about 200,000 Chinese characters. All the students involved in these classes are Chinese Singaporeans.

The analysis was carried out in two steps: (1) the identification of cultural words and activities used in classroom discourse and (2) the description of cultural words and activities using SFL categories. The first step was relatively simple and implemented manually. Cultural words in this study are terms that refer to objects, people and concepts characteristic of the Chinese community, such as the name of famous actors and the character in known stories. Cultural activities refer to any activities used by the teacher when presenting Chinese culture in classroom, including role play, dance, music and so forth. The second step of data analysis was conducted within a framework developed on the basis of the metafunction and register theories in SFL. It is worth noting that SFL categories have been created mainly for the functional analysis of English, and there is always the danger of assuming that the categories in English are valid in the description of Chinese. For example, the category Finite in English does not exist in Chinese because the language has no system of verbal finiteness (Matthiessen and Halliday 2009). This study thus carried out its detailed analysis of classroom discourse on the basis of a set of systemic functional categories developed for the description of Chinese language (Yang 2011).

SFL allows for a systematic description of linguistic choices in terms of the functions for which they are used. To be more specific, a language creates meaning within three generalized metafunctions: (1) ideational, (2) interpersonal and (3) textual. The ideational metafunction is concerned with the grammatical resources for construing the experience of the world around us and inside us. It is manifested structurally in a clause as a Process (e.g., Material, Mental, Relational), the role of Participants (e.g., Actor, Goal, Senser, Carrier) and the attendant Circumstances (e.g., Cause, Location, Manner). The Interpersonal metafunction involves the grammatical resources for establishing, changing and maintaining the interaction between speaker and addressee(s). One of its major grammatical systems is Mood, which has the options of Imperative, Declarative and Interrogative. The Textual metafunction engenders grammatical resources for organizing ideational and interpersonal meanings into the text. Thematic and information systems are two major textual systems at clause rank, indicating the status of prominence and degree of newsworthiness. The thematic system is presented as a configuration of two constituents: Theme and Rheme. Theme is the local environment of a message, serving as point of departure. Rheme is what presented in this local environment. The information system describes the tension between what is predictable and unpredictable. It displays given and new information, represented as Given and New in SFL. These categories of SFL and how they function together will be shown in the analysis as cultural words are identified through their ideational, interpersonal and textual functions. The framework for the analysis of cultural words is shown in Table 11.1.

Procedurally, the clause in which a cultural word occurs was first analysed in terms of ideational function. The purpose of doing this is to find out the role played by the cultural word in the teacher's talk. Following this, the clause was analysed from interpersonal and textual perspectives. This study concentrates its analysis on the textual function, aiming to identify the main focus of the teacher's talk. To be

**Table 11.1** Framework for the analysis of cultural words

Metafunction	Grammatical categories
Ideational function	Participant:
	Actor/Senser/Sayer/Carrier;
	Goal/Phenomenal/Verbiage/Attribute
	Process:
	Relational/Material/Verbal/Mental/Existential/Behavioural
	Circumstance: Time/Space/Cause/Manner
Interpersonal function	Mood system:
	Interrogative/Declarative/Imperative
Textual function	Thematic system:
	Theme/Rheme
	Information system:
	Given/New

more specific, both the thematic structure and information structure of a clause were investigated in the analysis. The interpersonal function of cultural words was discussed with respect to the Mood system instead of Mood elements. This is because Mood elements have little significance beyond the immediate sequence of clauses in which they occur (Halliday and Matthiessen 2004). With this in mind, my analysis of cultural words focused on the teachers' choices in the Mood system. The detailed analysis of cultural words is demonstrated in Example 11.1.

#### Example 11.1

	这条 龙	是	什么 颜色?
	(this piece dragon)	(is)	(what colour)
	What is the colour of this dragon?		
Ideational	Carrier	Process: Relational	Attribute
Interpersonal	Mood: Declarative		
Textual	Theme	Rheme	
	Given		New

The cultural word in Example 11.1 is 龙 (dragon). It is considered as a cultural word because the Chinese use the character as the symbol of China and name themselves as 'descendants of the dragon'. In the lesson, the clause is used for the discussion of a passage titled "Colours", which aims to introduce Chinese terms of colours to students. The cultural word 龙 (dragon) has a textual function of Given and is used as background knowledge by the teacher. Because it is expected to be pre-existing (i.e., background) knowledge, it is very hard for students to understand this clause if they have no idea about 龙 (dragon). The New in the clause, 颜色 (colour), is part of the instructional focus and is not a cultural word. However, it was taught on the basis of the cultural word 龙 (dragon). Thus, we can see that the teacher seems to expect the cultural knowledge to serve as the background for the new lexical

**Table 11.2** Framework for the analysis of cultural activities

Register variables	Situation dimensions of cultural activities	Example of analysis
Field	What is being talked about in relevant cultural activities?	The norms of speaking politely
	What kind of cultural issue the teacher and students are engaged in?	The teacher shows students what to do
Tenor	Who is taking part in the cultural activities observed? (people involved)	Both the teacher and students
	What is the relationship between teacher and students involved in cultural activities? (focus on relationships)	Collaborative
Mode	What is the form of language used in cultural activities, formal or informal, written or spoken?	Formal expression
	What is the rhetorical contribution of cultural activities, informative, reporting or communicating?	Informative

knowledge. This type of presentation was frequently observed in the classroom discourse collected, indicating that cultural words are very important in Chinese lessons even if these words are not explicitly taught. This point will be discussed further in the next section.

To understand cultural activities, register theory (Halliday 1978) is used. Register theory recognizes three variables of situation: Field, Tenor and Mode. Matthiessen and Halliday (2009, p. 88) describe these variables as follows:

*Field* concerns what's going on – the social processes and the domains of subject matter created by language in the realization of these social processes. *Tenor* concerns who's taking part – the social roles and relations of those taking part in the interaction and the speech roles and relations created by language in the realization of these social roles and relations. *Mode* concerns what role language is playing in context – its distance to those involved according to medium and channel, its complementarity with other social processes, and its rhetorical contribution.

These three variables – Field, Tenor and Mode – were adapted in this study to describe the situation of cultural activities in a language classroom. In particular, a cultural activity is described from three perspectives to reveal how the cultural content involved was addressed in the classroom instruction (Table 11.2).

## Findings and Discussion

### *Cultural Words*

A total of 51 cultural words were identified in the corpus. Given the significance of Chinese culture in the teaching of Chinese language as evidenced by the syllabi and long-standing national policy (see Silver and Bokhorst-Heng, this volume), the

**Table 11.3** Distribution of cultural words in classroom discourse

Topic	Quantity	Examples
Chinese movies, songs and tales	23	功夫 (Martial arts)
		成龙 (A famous movie star from Hong Kong)
		周杰伦 (A Taiwanese musician, singer-songwriter) 雷公公和电婆婆 (Grandpa thunder and grandma lighting)
The history of ancient China	13	汉朝 (Han Dynasty 206 B.C.–220 A.D.)
		孔融 (The name of an historical figure)
Chinese customs, moral values and festivals	12	孝顺 (Filial piety)
		红衣服 (Red clothes)
Others	3	熊猫 (Panda)

occurrence is much less than expected. Nonetheless, a closer analysis of the words provides some insight into their importance for the teaching of cultural knowledge in Chinese language classrooms. These cultural words mainly fall into three topical groups: (1) Chinese movies, songs and tales, (2) the history of ancient China and (3) Chinese customs and festivals. Table 11.3 illustrates how these cultural words are distributed in the corpus.

### Chinese Movies, Songs and Tales

Cultural words relating to Chinese movies, songs and tales were used most frequently by Chinese teachers in their classes, accounting for nearly 50% of cultural words identified. The majority of these words (18 out of 23) occurred in clauses with the structure of ‘A + 像 (look like) + B’. A detailed analysis of relevant clauses in terms of ideational function demonstrates that these cultural words function as Attributes in relational clauses, as shown in Example 11.2:

#### Example 11.2

	他们的动作 (they of movement) They move like Jackie Chan.	就像 (just like)	成龙 (Jackie Chan)
Ideational	Carrier	Process: Relational	Attributes
Interpersonal	Mood: Declarative		
	Subject	Predicator	Complement
Textual	Theme	Rheme	
	New		Given

Attribute in a relational clause refers to a quality to be ascribed to an entity which functions as Carrier in the clause. A Carrier is ordinarily realized by a nominal group. When speakers use a word as Attribute, they are ordinarily sure that their listener knows the meaning of the word. Most cultural words related to Chinese

movies, songs and tales were deployed as Attributes in relevant expressions. This suggests that Chinese teachers are confident that their students are familiar with these words. Before the statement “They move like Jackie Chan” (Example 11.2), the teacher attempted to describe the rapid movement of a figure in the textbook and realized that her students did not totally understand the description. Assuming that her students were familiar with 成龙 (Jackie Chan) as an action movie star, the teacher used his name to activate prior knowledge to guide her students in comprehending the text. This method of using a contemporary cultural word to activate prior knowledge is a strategy widely used by teachers involved in this study.

Using Chinese cultural words to activate prior knowledge is premised on the idea that Singapore's social life is infused with Chinese linguistic and cultural content. Local cinemas in Singapore often screen films produced by Hong Kong, Taiwan and Mainland China. It is also very common for Chinese Singaporeans to watch Chinese movies on Mandarin TV channels and listen to Chinese songs on local radio. Chinese tales are also part of Singaporeans' everyday life, even though they are sometimes told in English. Children growing up in this environment are thus familiar with the cultural words relating to contemporary Chinese movies, songs and tales that are drawn upon in teacher discourse.

Example 11.2 also shows that the cultural word 成龙 (Jackie Chan) acts as Rheme in the thematic structure and Given in the information structure of the clause. In reality, most of the cultural words relating to Chinese movies, songs and tales were used as the combination of Rheme and Given in the corpus. According to Halliday, “Theme+Rheme is speaker-oriented, while Given+New is listener-oriented” (1994, p. 299). Theme is what a speaker chooses to take as the point of departure, serving as the focus of speaker's expression. New is what the speaker is asking his listener to attend to, functioning as listener-oriented prominence in a clause. If a word is used as the combination of Rheme and Given, it is normally assigned as the less prominent component in an expression. This means that Chinese teachers didn't have the cultural words relating to Chinese movies, songs and tales as the focus of their teaching. These words were merely presented as the background information for more important content or for the lesson's focus. It turns out from this analysis that Chinese teachers devoted little attention to this category of cultural words. In fact, the cultural words relating to movies, songs and tales were never treated as the target of Chinese culture teaching in primary schools although they are an important aspect of modern Chinese culture. This phenomenon is obviously related to the familiarity of both teachers and students with this category of cultural words. It is also concerned with the lack of clear requirements on teaching modern Chinese culture to students in the syllabus.

### **The History of Ancient China**

The strategies Chinese teachers used for teaching cultural words about the history of ancient China are quite different from those employed for presenting words relating to movies, songs and tales. With respect to ideational function, this group of



cultural words was normally deployed as Phenomenon in mental clauses with the form of “你们知道 ... 吗 ?” (Do you know ...?). These rhetorical questions were answered immediately by the teacher to provide students with more information about the cultural words under discussion. The answers were typically relational clauses in which the cultural words function as Identified. The functional analysis of these pairs of mental and relational clauses is illustrated in Examples 11.3, the question, and 11.4, the reply:

Example 11.3

	你们	知道	汉朝 吗 ?
	(you)	(know)	(Han Dynasty mood particle)
	Do you know the Han Dynasty?		
Ideational	Senser	Process: Mental	Phenomenon
Interpersonal	Mood: Interrogative		
	Subject	Predicate	Complement
Textual	Theme	Rheme	
	Given		New

Example 11.4

	汉朝	是	在 两千年前
	(Han dynasty)	( is)	(in two thousand years ago)
	The Han dynasty is two thousand years ago.		
Ideational	Identified	Process: Relational	Identifier
Interpersonal	Mood: Declarative		
	Subject	Predicate	Complement
Textual	Theme	Rheme	
	New		Given

According to Halliday and Matthiessen (2004), “mental clauses are concerned with our experience of the world of our own consciousness” (p. 197). The only participant in a mental clause is Senser – a human being who feels, thinks or perceives. The other main element in a mental clause, namely Phenomenon, is the thing or fact that is sensed – what is felt, thought or seen. The teacher establishes a connection between students growing up in a modern city and a cultural word coming from the history of ancient China by assigning them roles respectively as Senser and Phenomenon. It is very hard to do this with other types of clauses, such as Material and Relational.

Singapore primary students would not have much knowledge about the history of ancient China, not having studied it yet. In Example 11.3, the teacher asked her students the question even though she realized they could not answer. This suggests the question was asked to try to involve students in the discussion of new knowledge. This is also reflected by the fact that the teacher assigns an identity to the cultural word by answering the question immediately. The ideational analysis shows

that this method of teaching cultural words is an unfolding process divided into two stages. The teacher attracted her students' attention and activated their consciousness in the first stage. The meaning of a cultural word was then explained with a relational clause in the second stage. This unfolding process of word explanation is the strategy used by Chinese teachers to reduce the difficulty of teaching cultural words coming from ancient China history.

Unlike movies, songs and tales, cultural words pertaining to ancient history and customs were given direct focus in the teachers' discourse. This can also be seen by the analysis of textual functions. As shown in Examples 11.3 and 11.4, the cultural word was presented by the teacher as New in the information structure of a pair of clauses. Moreover, the cultural word respectively functions as Rheme in the question and Theme in the answer, with the Theme in the second clause selected from the Rheme of the preceding clause. The teacher actually used the first clause to highlight the focus and indicate the cultural word the students are going to learn. The analysis of Examples 11.3 and 11.4 demonstrates a pattern of teaching the cultural words about ancient China history. This pattern involves the teacher assigning a cultural word as New in two interrelated clauses and indicating the focus of expression with a stepwise development of thematic structure. This teaching strategy was observed in the explanation of 11 out of 13 cultural words related to the history of ancient China.

The wide usage of this pattern reveals that Chinese teachers have taken this category of cultural words as a significant part of Chinese culture teaching in their classroom. In other words, Chinese teachers in Singapore are striving to teach cultural words which are very difficult for their students to understand.

### Chinese Customs and Festivals

The last category of cultural words observed in the classroom discourse is that associated with Chinese customs and festivals. An analysis of ideational functions of these words demonstrates that teachers typically presented them as Goal or Process in a material clause, as shown in Examples 11.5 and 11.6.

#### Example 11.5

	华人	在 新年	穿	红衣服
	(Chinese)	(in New Year)	(wear)	(red clothes)
	Chinese wear red clothes in New Year			
Ideational	Actor	Circumstance	Process: Material	Goal
Interpersonal	Mood: Declarative			
	Subject	Complement	Predicate	Complement
Textual	Theme	Rheme		
	Given			New

## Example 11.6

	我们	要	孝顺	父母
	(we)	(need to)	(filial piety)	(parents)
	We need to take care of our parents.			
Ideational	Actor	Process: Material		Goal
Interpersonal	Mood: Declarative			
	Subject	Finite	Predicator	Complement
Textual	Theme	Rheme		
	Given		New	

Material clauses are clauses of doing and happening. The Actor in a material clause is the one that does the deed or the one who brings the change. In instructional texts, material clauses tend to differ from all the other types of clauses in that they can bring in the learners' own experience by assigning them as Actors. The cultural word 红衣服 (red clothes) in Example 11.5 functions as the Goal to which the action of Actor, 华人 (Chinese), is directed with the Process 穿 (wear). In Example 11.6, we also see the Actor–Goal structure but the cultural word 孝顺 (filial piety) is construed as the Process. All of the cultural words associated with customs and festivals in the corpus were employed as Goal or Process of Material clauses in which students serve as Actors. This indicates that Chinese teachers try to teach this type of cultural word with a method to help students experience culture.

Examples 11.5 and 11.6 also show that the two cultural words assigned as Rheme in the thematic structure are simultaneously treated as New in the information structure. This phenomenon was observed in the explanation of most cultural words about Chinese customs and festivals. The mapping of Theme+Rheme and Given+New is the unmarked choice of combining information and thematic systems, which means Theme falls within Given, while Rheme falls within New in a clause. This pattern of combining New with Rheme enables the discussion of a cultural word to be conducted against the background of what has been said or what is familiar to students. Since the information focus was assigned to Rheme, students were invited to attend to the last constituent of the clause, for example, 红衣服 (red clothes) in Example 11.5. This means the cultural words involved were not the sole focus of teachers' talk although students were expected to give attention to them. Growing up in a society that is dominated by Chinese, Singaporean students are expected to be quite familiar with Chinese customs and festivals. This explains why teachers didn't put these cultural words in the most salient position of clauses involved although the customs and festivals are a major content of culture teaching listed in the syllabus.

The discussion above shows that the strategies adopted by Chinese teachers to teach cultural words vary across topics. Cultural words relating to movies, songs and tales were treated as the background knowledge from which students could conceptualize the meaning of a new word or phrase. The cultural words associated with the history of ancient China were discussed by bridging the gap in knowledge, while those associated with Chinese customs and festivals were explained by mak-

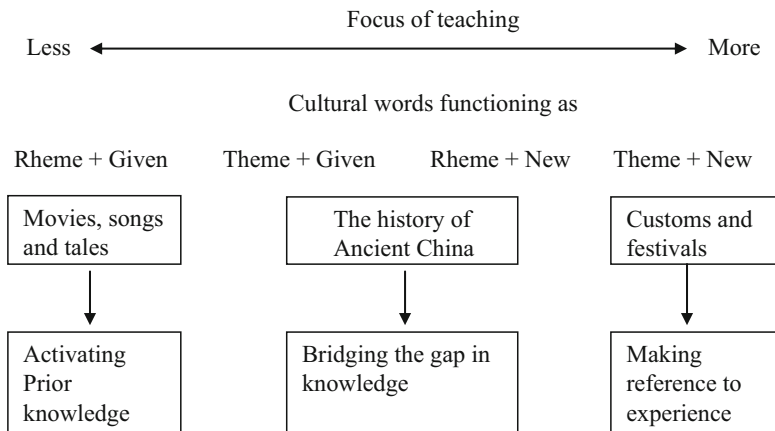


Fig. 11.1 Strategies for teaching cultural words

ing reference to students' own experience. It is also found that cultural words concerned with history, customs and festivals were the main focus of Chinese cultural word teaching. The words relevant to movies, songs and tales were never the focus of Chinese culture teaching although they were used most frequently by the teachers. These characteristics of cultural words teaching are summarized in Fig. 11.1.

### ***Cultural Activities***

Similar to cultural words, cultural activities were observed infrequently. This study identified 32 cultural activities in the corpus. These activities, as explained above, were analysed in terms of their register variables (Table 11.2). In terms of Field (what is being talked about/what kind of cultural issues is raised), they were mainly concerned with two cultural issues: (1) rituals in Chinese classroom and (2) forms of politeness in Chinese culture.

### **Classroom Rituals**

Classroom rituals are repeated activities that students learn to expect as part of their time in the classroom (Jensen 2009). Some of the rituals observed in Chinese lessons have a long history, reflecting characteristics of Chinese culture. These rituals may be further differentiated into classroom routines that occur daily at an expected time and classroom activities used for specific occasions. The most common classroom routines with cultural meaning observed in the lessons were those of greeting. In Chinese classes all students have to stand up and bow to their teacher before each lesson. If there is an observer in the classroom, students are required to bow to him

or her as well to show their respect. In other lessons, students stand up to greet teacher and visitor but they do not bow. This is illustrated in Example 11.7:

#### Example 11.7

- Teacher 好,起立。首先,我们欢迎坐在后面的老师。  
(Well, stand up. First, we greet the teachers sitting behind. )
- Students 老师们早安。(Good morning, teachers.) (Students bow.)
- Teacher 好,转过来。同学们早安。(Well, turn around. Good morning, class.)
- Students L老师早安。(Good morning, Teacher L.) (Students bow.)
- Teacher 请坐下,在椅子上坐直。今天,我们要开始新的一课,大家还记得上次我讲的内容吗? (Please sit down. Sit straight and pull in your chair. Today, we are going to start a new lesson. Do you remember what I have mentioned?)

The greeting shown in Example 11.7 is a long-lasting tradition in Chinese culture, which dates back to Confucius' time during the Eastern Zhou Dynasty (770–256 BC). This tradition is still followed by a large part of Chinese around the world (Boye 2009). It is worth noting that this way of greeting is used only by Chinese language teachers in Singapore schools. It provides the opportunity for teachers to interact with their students in a manner consistent with Chinese culture. In this case, the greeting in Chinese lessons has become a symbol of culture and a ritual that inculcates culture. There are also rituals in the corpus created by Chinese teachers for specific occasions. Some of these rituals have an embedded cultural meaning. For instance, many Chinese teachers were observed to request students to recite nursery rhymes as a reminder to be quieter. Example 11.8 shows the translation of a nursery rhyme used in the class.

#### Example 11.8

- Teacher “小眼睛,认真看”。(Open your little eyes to watch carefully!)
- Students “小耳朵,认真听”。(Use little ears to listen carefully.)
- Teacher 还有人在说话,再来一次。“小眼睛,认真看”。(I still hear talking. One more time. “Open your little eyes to watch carefully!”)
- Students “小耳朵,认真听”。(学生安静下来) (Use little ears to listen carefully.) (Students keep quiet.)

In these cases, the nursery rhymes were not related to the teaching content, they were merely used for the purpose of engaging the entire class in a predictable manner. Not every teacher did this in the same way, but students were expected to quickly adapt to each teacher's ritual. A detailed analysis of Example 11.8 reveals that the use of nursery rhymes was not merely classroom management. The teacher asked her students to repeat the nursery rhyme after hearing that some of them were still talking with each other. This practice suggests that the teacher was making an effort to establish a teacher-centred classroom. Students were expected to listen

carefully when the teacher was talking. Chinese culture takes relationship between teachers and students very seriously. Sometimes it is culturally unacceptable for students to interact with their teacher (Li 2003). Chinese classes in Singapore as observed in this study were typically conducted in traditional ways which are deeply rooted in Chinese culture. (See Zhao and Shang this volume for discussion of strategies being used to make Chinese language lessons more student-centred and Silver et al this volume, for comparison with other language classes at the same grade level.) The frequent use of classroom rituals by Chinese teachers to create a teacher-centred environment is obviously one of these traditional ways.

### Teaching of Politeness

The teaching of politeness in Chinese culture is the second category of cultural activities observed in these lessons. It was found that teachers often interrupted their students while they were talking in order to explain how to be more polite in Chinese culture, as shown in Example 11.9:

#### Example 11.9

- Teacher .....嗯, 像这样说话礼貌吗? (... .. oh, is it polite to talk like this?)  
 Students 不礼貌。(No, it isn't.)  
 Teacher 啊, 不礼貌。我们应该, 和别人说话时, 声音更低, 说得更慢。好, 我们继续。(Uh, it isn't polite. We should, when we ask the others, speak in a low tone and speak a little slowly. Okay, let's go on.)

Politeness is a fundamental part of culture which shapes human behaviour within a society (Goode et al. 2000). An important strategy to speak politely in Chinese is to soften one's speech, making it less demanding and offensive. While this may be true in other cultures and languages as well, what is interesting in Example 11.9 is the teacher's very explicit suggestion of speaking in a low tone and a little slowly. According to the latest survey conducted by the Ministry of Education (MOE 2009), more than 60% of Chinese P1 students come from English-speaking homes. Without support at home in these cultural practices, it may become more and more difficult for these students to be linguistically polite in Chinese. Teachers are sometimes obliged to correct students' inappropriate use of words and phrases in the process of their teaching. In other cases, teachers deliberately explain the rules of politeness in Chinese culture to their students.

Table 11.4 summarizes the two categories of cultural activities discussed above to show their overall distribution in terms of Field. Table 11.4 shows that more than half of the cultural activities identified were classroom routines, which were observed in all 17 lessons. This type of activities is an important way for Singapore Chinese students to participate in cultural practices. The occasional rituals with the purpose of reinforcing the hierarchy in classroom are observed eight times in all the lessons. In Chinese culture, teachers must be treated as an embodiment of both

**Table 11.4** Distribution of cultural activities in terms of Field

Field		Number	Brief description
Rituals in Chinese classroom	Classroom routines	17	Greeting before each lesson
	Occasional rituals	8	Nursery rhyme
Politeness in Chinese culture		7	Politeness teaching

**Table 11.5** Summary of cultural activities in terms of situation dimensions

	Cultural activities		
Field	Rituals in Chinese classroom		Politeness in Chinese culture
	Classroom routine	Occasional activity	
Tenor	Both teacher and students are engaged		Only teachers are engaged
	Collaborative		Un-collaborative
Mode	Formal expression		Formal expression
	Communicating		Informative

wisdom and social superiority (Hu et al. 2010). It is even claimed that ‘一日为师，终生为父’ (one day being one’s teacher, a whole life being one’s father). Students have to demonstrate sufficient respect to their teachers. Table 11.4 also shows that the cultural activities concerned with politeness in Chinese culture were observed much less frequently than those in the fields of classroom routine and occasional ritual. However, teaching politeness showed greater diversity in terms of teaching strategies, including methods of taking to people with higher standing, strategies of softening speech and ways of greeting people.

The two categories of cultural activities – rituals in the classroom and forms of politeness – were also distinguished in terms of Tenor (who is taking part/what is the relationship between the participants). In particular, both teachers and students were engaged in the classroom rituals observed. The relationship between teachers and students are thus collaborative. Politeness teaching, on the other hand, was conducted by teachers through modelling and coaching behaviours which were not collaborative. For instance, a teacher demonstrated the action of 拱手 (folding hands) to her students by folding one hand to the other and raising them to the level of chest. The teacher said, “We should do it like this” while modelling the action. It was also observed that some teachers were inclined to show behaviours with images and videos.

The most distinctive feature of the cultural activities with respect to Mode (the form of language/rhetorical contribution) was the use of formal language by teachers. The analysis of classroom discourse shows that Chinese teachers frequently assume that their students have the knowledge of formal expressions and address terms. As mentioned above, more and more ethnically Chinese students come from English-speaking families in Singapore. It might be hard for students growing up in these families to use these expressions properly. Students were occasionally

reminded to use formal expressions, as shown in Example 11.10. Example 11.10 indicates that the student used 你 (neutral you) as an address term. The teacher suggested the student to use a more formal word 您 (formal you) even though the student's expression was correct.

#### Example 11.10

- Student 你能把它借给我吗? (Can you lend it to me?)  
 Teacher 我们可以用你来称呼别人,但是用您会显得更有礼貌。  
 (Here it is okay for us to use *ni* [neutral you] to address people.  
 But, you can *nin* [formal you] to show your politeness.)

The cultural activities discussed above are summarized in Table 11.5.

### *The Nature of Cultural Content*

According to Moran (2001), there are four types of cultural knowing in the process of language teaching, namely, knowing how, knowing about, knowing why and knowing oneself. Each type of cultural knowing addresses a distinct composite of content, activity and outcome, as shown in Table 11.6.

Moran (2001) explains that 'knowing about' is a process in which a learner acquires cultural information fundamental to further culture learning. The teachers' role in this process is to gather information and present it to his or her students. 'Knowing how' involves acquiring cultural practices, including behaviours, actions or other forms of doing appropriate for the target culture. With such an emphasis, coaching and modelling become central teaching strategies. Teachers show students what to do and how to do it. They can either perform the behaviours themselves or show students a model of the action, using videos or other outside sources. 'Knowing why' and 'knowing oneself' respectively deal with the understanding of cultural beliefs and the development of a learner's own cultural values.

My analysis of cultural words and activities in this corpus of P1 and P2 lessons shows that Chinese teachers focus their teaching of Chinese culture on Moran's (2001) 'know how' and 'knowing about' as ways of cultural knowing, rather than explaining cultural values ('knowing why') or developing students' self-awareness ('knowing oneself'). Therefore, Chinese culture teaching in Singapore's primary

**Table 11.6** Cultural knowing: content, activities and outcomes

	Content	Activity	Outcome
Knowing about	Cultural information	Gathering information	Cultural knowledge
Knowing how	Cultural practices	Developing skills	Cultural behaviour
Knowing why	Cultural perspectives	Discovering explanations	Cultural understanding
Knowing oneself	Self	Reflection	Self-awareness

Moran (2001, p. 18)



schools includes two main components: (1) cultural behaviours and (2) cultural knowledge. Cultural behaviour refers to the actions of teachers and their students, who may talk, move and even dance and sing in the manner of the people living in Chinese culture. Cultural knowledge involves the ethics, facts and concepts about Chinese culture. The two components of culture teaching are manifested respectively as cultural activities and words in classroom discourse.

Moran (2001) also claims that knowing how, knowing about, knowing why and knowing oneself are the four stages of a learning cycle. Chinese teachers observed in this study focused only on the first two stages of the cycle, namely, knowing about and the knowing how. As such, they are perhaps contributing to the declining significance of Chinese culture in Singapore. If students are not encouraged to examine the why of cultural knowing, and if they are not encouraged to develop critical self-awareness, then the cultural knowing remains peripheral, and even external, to oneself.

## **Conclusion**

This chapter explores the way language and culture is integrated in Singapore's Chinese classes, illustrating how Chinese culture is represented explicitly through cultural words and implicitly in the classroom activities. It was found that there were only 51 cultural words and 32 cultural activities in a corpus of 17 lessons with about 200,000 Chinese characters in total. These figures show that the frequency of Chinese culture teaching in Singapore primary school is relatively low. More importantly, the findings of this study indicate that the concentration of culture teaching in Chinese lessons does not necessarily correspond closely to the cultural practices of Singapore society. Chinese teachers try to teach their students culture content that is relevant to history, customs and festivals of China. However, students are more familiar with modern Chinese culture. Many challenges of Chinese culture teaching in Singapore are actually engendered by this conflict situation and may be related to language shift from Chinese to English. Chinese language syllabi should extend its description of cultural content to include more elements of modern Chinese culture and provide additional support for Chinese teachers to be able to teach culture in a more effective way.

## **Acknowledgement**

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## References

- Boye, D. M. (2009). *Chinese mind: Understanding traditional Chinese beliefs and their influence on contemporary culture*. New York: Tuttle Publishing.
- Goode, T., Sockalingam, S., Brown, M., & Jones, W. (2000). *A planner's guide: Infusing principles, content and themes related to cultural and linguistic competence into meetings and conferences*. Washington, DC: Georgetown University Center for Child and Human Development, National Center for Cultural Competence.
- Halliday, M. A. K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M. A. K. (1994). *An introduction to functional grammar*. London: Edward Arnold.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2004). *An introduction to functional grammar*. London: Edward Arnold.
- Hu, W., Grove, C. N., & Zhuang, E. (2010). *Encountering the Chinese: A modern country, an ancient culture*. Yarmouth: NB Publishing.
- Jensen, E. (2009). *Super teaching*. Thousand Oaks: Corwin Press.
- Li, K. (2003). Chinese. In J. Lo Bianco & C. Crozet (Eds.), *Teaching invisible culture* (pp. 53–101). Melbourne: Language Australia Ltd.
- Martin, J. R., & Rose, D. (2008). *Genre relations: Mapping culture*. London: Equinox.
- Matthiessen, C. M. I. M., & Halliday, M. A. K. (2009). *Systemic functional grammar: A first step into the theory*. Beijing: Higher Education Press.
- MOE. (1992). *Chinese language teaching and learning in Singapore: Report of the Chinese language review committee*. Singapore: Author.
- MOE. (2002). *Secondary Chinese language syllabus*. Singapore: Curriculum Planning and Development Division, Author.
- MOE. (2004). *Report of the Chinese language curriculum and pedagogy review committee*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/media/press/2004/CLCPRC%20Committee%20Report.pdf>
- MOE. (2007). *Primary Chinese language syllabus*. Singapore: Curriculum Planning and Development Division, Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/>
- MOE. (2009). *Speech by Dr Ng Eng Hen, Minister for Education at the MOE work plan seminar*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/media/speeches/2009/09/17/work-plan-seminar.php>
- MOE. (2010). *Nurturing active learners and proficient users: Report of mother tongue language review committee*. Singapore: Author.
- Moran, P. R. (2001). *Teaching culture: Perspectives in practice*. London: Thomson Learning.
- Yang, Y. N. (2011). Grammatical metaphor in Chinese: A corpus-based study. *Functions in Language*, 18(1), 213–245. doi:10.1075/fo1.18.1.01yan.

# Chapter 12

## Morphological Teaching and Singaporean Children's English Word Learning

Dongbo Zhang and Li Li

### Introduction

In this chapter, we report some initial findings of a quasi-experimental study that involves teaching English derivational morphology to fourth graders in Singapore, a multilingual country where English is the medium of school instruction but not necessarily children's dominant home language. We chose to focus on derivation because derived words are prevalent in English print, yet English derivation is a challenging morphological process to school children (Kuo and Anderson 2006; Tyler and Nagy 1989). We were particularly interested in the extent to which semester-long instruction on English derivation would accelerate the development of derivational awareness and lexical inference or word learning ability and if the relationship of derivational awareness with lexical inference would change as children progress through schooling at the primary level.

### English Morphological Awareness and Its Development

Morphological awareness pertains to “the ability to reflect upon and manipulate morphemes and employ word formation rules in one's language” (Kuo and Anderson 2006, p. 161). Carlisle argued that morphological awareness “must have as its basis the ability to parse words and analyze constituent morphemes for the purpose of

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constructing meaning” (2000, p. 170). Morphological awareness emerges from early spoken language acquisition and continues to develop after schooling commences. It is multidimensional and multifaceted, entailing different types and levels of insights that develop in disparate trajectories (Berninger et al. 2010; Tyler and Nagy 1989). Some insights are acquired very rapidly at the early stage of schooling; others, however, develop fairly slowly, necessitating considerable exposure and experience with printed words (Berninger et al. 2010; Mahony 1994; Tyler and Nagy 1989).

In accordance with the three major word formation processes (Plag 2003), i.e., inflection, derivation, and compounding, English morphological awareness can be of three types, including inflectional, derivational, and compound awareness. English inflectional affixes are very small in number, and inflected words are largely regular structurally, with no or very limited phonological or orthographic shift (e.g., *jumps*, *jumping*, and *jumped*). Awareness of inflectional morphology is thus a comparatively early acquired competence and imposes little difficulty on learning to read (Kuo and Anderson 2006).

Clark (1993) noted that compounding can be used by children as young as two for lexical coinage even before they acquire certain affixation rules. Children may refer to a person who reads as *read-man* rather than using the agentive rule to form the word *reader*. Clark et al. (1985) reported that from age 2 onward, children could identify the head in a novel compound *apple-knife* and pick out a picture with a knife on it. This knowledge of the modifier-head relation developed rapidly from age 2 to 4, and children above 4 generally had no problem in choosing the correct referent of a novel compound.

In comparison to inflection and compounding, derivation is more challenging to children in reading acquisition. This is because of the large number of derivational affixes in English and the fact that adding a derivational affix to a base leads to change of the meaning, and often the grammatical category, of the base; and derived forms often involve phonological or/and orthographic changes (e.g., *decide* and *decision*).

Derivational awareness can entail different levels of insights that develop with diverse timetables. Tyler and Nagy (1989) and McCutchen et al. (2008) differentiated between three types of derivational knowledge, namely, relational, syntactic, and distributional. Relational knowledge is typically measured with a morphological relatedness task in which children are to judge whether the first word in a pair comes from the second (e.g., *thinker/think*; *corner/corn*) (e.g., Nagy et al. 2006). Relational knowledge develops rapidly in early primary years, and the development levels off as students move onto upper primary and beyond (Berninger et al. 2010). Eighth graders' performance on the morphological relatedness task was near ceiling (Tyler and Nagy 1989).

Syntactic knowledge pertains to the understanding that suffixation usually changes the grammatical category of a base, for example, *brightness* is a noun, *brightly* is an adverb, whereas *brighten* is a verb. It is more challenging than relational knowledge (Nagy et al. 2006; Tyler and Nagy 1989). Berninger et al. (2010) reported that similar to that of relational knowledge, syntactic knowledge develop-

ment shows a nonlinear pattern – the growth was steeper in grades 1 to 3 than in grades 3 to 5. However, there is no conclusive evidence that syntactic knowledge could be fully developed among high school students (Nagy et al. 2006; Tyler and Nagy 1989). Mahony's (1994) findings suggested that individual difference in syntactic knowledge could exist even among college students.

Distributional knowledge refers to the insight into the principle that affixation is constrained by the syntactic category of the base to which an affix is attached. For example, *homeless* is a viable English word, whereas *jumpleless* is not. Understanding the distributional constraints of derivational affixation seems to be the most challenging of the three aspects of derivational knowledge. Because it involves fine-grained representation of prefixes and suffixes and knowledge about their functions, distributional knowledge requires plenty of processing experiences with derived words to develop. In Tyler and Nagy (1989), even eighth graders, who had many years of formal literacy education and print exposure, had difficulty judging whether a derivational suffix was appropriately juxtaposed with a base morpheme of a particular syntactic category.

## Morphological Awareness and Word Learning

Previous analyses of the words English-speaking students were exposed to or their vocabulary repertoire suggested that morphological analysis should play an important role in learning new words. Nagy and Anderson (1984) estimated that roughly 60% of the words in the American Heritage Word Frequency Book (Carroll et al. 1971), which was considered as representing printed school English for grades 3 through 9, were semantically transparent and children could use morphological principles to derive their meanings. According to White et al. (1989), the top 20 prefixes and 20 suffixes (both inflectional and derivational), respectively, accounted for about 97% of the 2959 prefixed and 93% of the 2167 suffixed words randomly sampled from the same database (Carroll et al. 1971). Anglin (1993) reported that from grade 1 to 5, the number of derived words learned by children (about 14,000) was more than three times as much as the number of root words (about 4000) known by the same group of children. He used “morphological problem-solving” (p. 5) to refer to the process in which children use their morphological knowledge to decompose complex words (e.g., *unquestionable*) into their morphemic constituents (*un- + question + -able*) and infer meanings of novel vocabulary items based on the meanings of these constituents.

However, using morphological clues to derive meanings of unknown words is not necessarily easy, as it requires deep insights into English derivational structure as well as knowledge of the meaning and grammatical function of English derivational affixes, that is, a deep level of derivational awareness. Nagy et al. (1993) reported that even high school students tended to use the base of a derived word to establish the overall meaning of the word, without considering the syntactic and semantic features associated with the suffix(es). The issue now comes to the

potential benefit of direct and purposeful teaching of morphology for learning new words by inferring their meanings. As Baumann et al. (2002) remarked, “if students are equipped with the ability to infer word meanings by ... analyzing the meaningful parts of words (morphology), they have the power to expand their reading vocabulary significantly” (p. 150).

Empirically, a small but growing number of studies have addressed how morphological instruction would benefit learning of new words, and their findings, overall, support the usefulness of such instruction. For example, in comparing the effects of different vocabulary instruction strategies, Baumann et al. (2002) found that fifth graders who received instruction on some prefix families outperformed those who did not on defining isolated, unfamiliar words by writing their meanings or choosing an appropriate meanings from given choices. A similar finding was also reported in Bowers and Kirby (2010) in which fourth and fifth graders who received focused training in the morphological structure of English derived words through graphic representations (“structured word inquiry”) were more successful than the controls not only in identifying the base as the main meaning-carrying unit in a derived word (i.e., base identification), but also in using the base word knowledge to infer meanings of unknown derived words (i.e., morphological vocabulary).

Possibly because of the importance of morphological analysis to inferring new words’ meanings, morphological awareness has been found to be a significant independent predictor of vocabulary growth (Carlisle 2000). Carlisle (2000) found that third and fifth graders’ derivational awareness accounted for a large amount of variance in their vocabulary breadth, and the amount was much larger for fifth graders than for third graders, which seems to suggest that the relationship of morphological awareness to vocabulary knowledge should strengthen as children move beyond the learning to read stage. Such strengthening of this relationship may be attributed to the possibly more involvement of morphological analysis in word learning or lexical inference, which has not been empirically and longitudinally tested in a single study, even though significant correlations of derivational awareness with the ability to infer meanings of unfamiliar derivatives surfaced in a few studies that focused on diverse and separate groups of English learners (e.g., Bowers and Kirby 2010; Zhang 2013; Zhang and Koda 2012). In Bowers and Kirby (2010), children’s base identification ability significantly correlated with their morphological vocabulary or meaning definition, and after controlling for pretest vocabulary knowledge, base identification explained a significant amount of variance in morphological vocabulary for the control as well as the intervention groups. However, the study did not pretest children’s base identification and morphological vocabulary, correlate them, and compare pretest correlations against posttest ones. Consequently, the question remains to be empirically tested as to whether the relationship between morphological knowledge and word learning or lexical inference ability would change longitudinally.

## Derivational Morphology in Primary English Language Curriculum in Singapore

Singapore is a multilingual society comprised of three major ethnic groups: Chinese (about 74% of the population), Malays (about 13%), and Indians (about 9%) (Singapore Department of Statistics 2010). English and the mother tongues (MT) of these ethnic groups (i.e., Chinese, Malay, and Tamil) are stipulated as the four official languages of the country. Singaporean children, who may not speak their MT at home due to gradual familial language shift toward English (Pakir 2008), are mostly bilingual and biliterate, albeit at varying levels, because they are required to develop proficiency in English as well as their respective MT under the quadrilingual education system in the country. An international lingua franca, English, in addition to being a school subject itself, is the medium of instruction for subject matter curriculum (e.g., math and science). Consequently, English, not necessarily students' home language, is designated as the "first school language" in school curriculum, while an MT language is taught as a "second school language," based on the importance ascribed to the respective language in Singapore (Pakir 2008, p. 191; see also Silver and Bokhorst-Heng, this volume).

Primary English language education in Singapore adopts a curriculum entitled Strategies for English Language Learning and Reading (STELLAR), which is designed reflecting the requirements stipulated in the English Language Syllabus 2010 (MOE 2008). The STELLAR curriculum is characterized by a pedagogical model comprised of a set of strategies, such as teacher-guided reading, explicit instruction on language structures, and focused and contextualized practice of linguistic knowledge and skills (e.g., small group writing and independent writing). These pedagogical strategies aim not only for literacy development as typical of any language arts curriculum common to a monolingual English setting, but for English language learning as well (e.g., spoken communication, grammatical knowledge). The objective is to achieve "a principled blend of first language (L1) and second language (L2) teaching methods" (MOE 2008, p. 8).

Such a curricular architecture is arguably designed with good reason. Two important reasons, in addition to that of the language foundation of literacy acquisition, are worth noting: firstly, while there has been gradual home language shift toward the use of English in Singapore, a significant proportion of primary school children still use their MT or ethnic language as the dominant language at home (MOE 2011a). To this group of children, English, though designated as the first language (Silver 2005) or "First school language" (Pakir 2008, p. 191), is actually their second language. Secondly, further complicating the learning of English in Singapore schools is the use of Singlish or Singapore Colloquial English, a local variety of English that is widely spoken in the Singapore society and characterized by, for example, optional marking for plurality and tense and prevalent use of discourse particles, such as *lor* and *meh*, due to the influence from the Chinese dialects spoken by early immigrants in the country (Deterding 2007; Silver 2005). Consequently, an objective of English language education in Singapore, including

primary school education, is made to facilitate the acquisition of a “standard English,” that is, “internationally acceptable” (MOE 2008, p. 7).

To researchers who are interested in morphological awareness, particularly derivational awareness, an immediate concern is if the English curriculum highlights the teaching of English derivational affixation and the close connection of morphological analysis with word learning and literacy acquisition in this context. Direct instruction on derivational morphology is included in the English Language Syllabus 2010 (MOE 2008), but briefly, and mostly in relation to vocabulary acquisition. For example, “teachers will draw pupils’ attention to how words can be formed... Teaching pupils commonly-used affixes (i.e., prefixes and suffixes) can enhance their vocabulary” (p. 106). In the STELLAR Teachers’ Guidelines (MOE 2011b), derivational morphology is listed as a component of word identification or vocabulary study and is introduced around a small number of selected prefixes and suffixes (e.g., *-less* and *-er*).

The above delineations seem to suggest that derivational morphology is an integral component of primary English language curriculum in Singapore. However, there are at least two issues. Firstly, the coverage of useful affixes is limited. A review of the affixes designated for explicit instruction in the STELLAR curriculum for Grades 1 through 3 showed that some frequent, productive prefixes and suffixes are missing, such as *-ive*, *-ity*, *-ize/-ise*, *mis-*, *dis-*, etc. At Grade 4, the coverage of new derivational affixes is minimal; only *-ive* and *mini-* are introduced. Researchers alert us to the “fourth-grade slump” in reading comprehension (Chall and Jacobs 2003, p. 14). One important reason for this slump is children’s enlarged exposure to informational texts from this period and onward in contrast to the inadequacy of their academic vocabulary, which is essential to comprehending lexically-rich, informational texts (Kieffer and Lesaux 2007). To prevent the slump, therefore, it is critical that academic vocabulary and strategies for acquiring it, such as morphological analysis, be taught to students.

Secondly, and probably more importantly, at the pedagogical level, our conversations with some local primary school teachers, their heads of department, and teacher educators suggested that teaching derivational morphology, even though stipulated in the STELLAR Curriculum, had not received due emphasis in pedagogical practices in Singapore. Our observations of some classes revealed a similar finding. For example, teachers often skipped the sections of the STELLAR curriculum where derivation is covered, and in addressing students’ questions about the meaning of an unknown derivative, they tended to provide a direct meaning definition instead of drawing students’ attention to morphological principles.

## Research Questions

For the reasons delineated above, we developed a morphological intervention program that aimed to facilitate Grade 4 children’s acquisition of English derivational morphology, word learning, and literacy acquisition. The present chapter focuses



only on morphological instruction and word learning. We had three research questions regarding this selected focus:

1. Does instruction on derivational morphology enhance children's development of derivational awareness?
2. Does morphological instruction enhance children's word learning ability?
3. To what extent is derivational awareness related to word learning ability, and does the strength of the relationship change longitudinally?

## Methodology

### *Participants*

Grade 4 children in two neighborhood schools participated in the present study, one receiving the intervention and the other serving as control. Neighborhood schools in Singapore are government-funded schools where student population is ethnically diversified. The two schools were compatible with respect to the level of the socioeconomic status (SES) of the student population. Like all other government-funded schools in Singapore, they followed the same set of national curricula, including the STELLAR curriculum for English language education, mandated by the Singapore Ministry of Education.

In Singapore, a typical mid or upper primary English language class in a neighborhood school is comprised of 35–40 students of diverse ethnic backgrounds, with the Chinese as the dominant group. Such was also true of the two participating schools. Before the intervention was implemented in the first semester of Grade 4 and when the pretesting was conducted at the end of Grade 3, there were seven classes totaling 252 students in the intervention school ( $M=36$ ) and five classes totaling 196 students in the control school ( $M=39$ ). For the study reported in this chapter, only the Chinese children were involved, for two reasons. Firstly, the Chinese are the largest ethnic group of the student population. Focusing on the Chinese group, instead of other ethnic groups, allowed us to maintain a significant number of participants for reliable data analysis after accommodating various missing data or data attrition. Secondly, the Chinese children's MT, Chinese, is a language that is impoverished in derivational morphology, which has been reported as particularly challenging to Chinese learners of English as compared to learners whose L1 has a productive derivational process (Ramirez et al. 2011). Consequently, with presumably limited support from their MT, Chinese children's acquisition of English derivational morphology warrants particular attention (See also Sun and Curdt-Christiansen, this volume).

Among students in these classes, only those who were born in Singapore or had lived and studied in Singapore from before the age of 5 (i.e., before kindergarten) were included. In addition, due to attrition, lack of parental consent, or missing data, the final number of students included in the analyses was 86 in the intervention

school and 79 in the control. The intervention students included 49 boys and 37 girls, with an average age of about 9.30 ( $SD = .33$ ) when they were pretested at the end of Grade 3; the 79 control students included 41 boys and 38 girls, with an average age of 9.46 ( $SD = .56$ ) at pretesting.

## ***Intervention Program and Instructional Strategies***

### **Designing and Pedagogical Principles**

Drawing upon recent research and discussions on morphological intervention (e.g., Carlisle 2010; Kieffer and Lesaux 2007), we followed a few principles in conceptualizing, designing, and translating into pedagogy the intervention program. Note that while the present chapter's focus is on morphological awareness and word learning, our intervention actually had a broader range of objectives that also included reading development. The first principle was that the program should integrate the development of knowledge as well as strategy with respect of English derivation. It should emphasize not only explicit teaching of derivational affixes and derivational structure but also the strategies to apply acquired knowledge in literacy-related activities. Our intervention program made explicit to students (1) that English derived words are constructed by juxtaposing two or more meaningful units (i.e., morphemes), and a derived word is constructed with an affix or affixes attached to a base word, and as such, it can be segmented into these components; (2) that derivation may alter the pronunciation and/or spelling of a base word in various ways (e.g., *sign* → *signature*; *decide* → *decision*); (3) the meaning and function of English derivational affixes, particularly that of suffixes in signaling the grammatical category of derived words; and (4) that the base carries the core meaning of a derived word, which is then modified by the affix(es) attached to the base. The meaning of a derived word can, therefore, be inferred by first segmenting the word into its base and affix(es) and then integrating the meanings of these components.

Developing the above knowledge and skills necessitates a set of pedagogical strategies. Therefore, the second principle that we followed, at the pedagogical level, was that the program should integrate explicit instruction, teacher modeling, and teacher-guided activities, as well as collaborative and independent student activities. In addition, there should be opportunities for teachers to re-teach and students to relearn and practice what had been previously covered as the program moved forward with new affixes being introduced. We believed that it was essential that explicit, structured instruction be provided on the form and meaning of target affixes and how they are used to form derivatives and the analytic process be modeled. In addition, students should be given ample opportunities, receptively and productively, to review and practice the various morphological skills, first through teacher-guided, scaffolded practice and then through independent work or collaborative work with their peers.

## The Intervention Program

The intervention was designed around the teaching of new prefixes and suffixes. It was divided into eight sessions, including two cumulative review sessions and six regular sessions that corresponded to the six units of the STELLAR curriculum for the first semester of Grade 4. Embedding the regular sessions into the STELLAR curriculum came primarily out of flexibility considerations, that is, it would be easier for teachers to plan for their teaching of the regular curriculum while implementing the intervention program (see further details below). Altogether, 14 new affixes were introduced in the six regular sessions, including five prefixes and nine suffixes. Two affixes, including one prefix (*mini-*) and one suffix (*-ive*), were listed as target of instruction in the STELLAR curriculum. Specifically pertaining to the intervention were four prefixes (i.e., *in-/im-/il-/ir-*, *mis-*, *dis-*, *re-*) and eight suffixes (i.e., *-able*, *-ive/-sive/-tive/-ative/-itive*, *-ity*, *-ous/-ious*, *-ent/-ence*, *-ian*, *-ise/-ize*, *-en*, *-th*) we selected based on previous studies of the utility of English derivational affixes (e.g., Bauer and Nation 1993; Baumann et al. 2012; White et al. 1989). As to the review sessions, Session 1 provided a cumulative review of the affixes that had been introduced in the STELLAR curriculum prior to Grade 4. Session 8 was a cumulative review of the 14 new affixes taught in the intervention. Each review session took about 80 min, each regular session about 40 min. The intervention time totaled approximately 400 min.

## Teachers as Intervention Implementers

The present study was a school-based and quasi-experimental one designed with an aim to align with participating schools' current curricular arrangement. Consequently, we decided that the intervention be implemented by English teachers of the intervention school. They embedded the intervention program into the STELLAR curriculum with their adjustment, whereas the teachers in the control school taught with the regular STELLAR curriculum.

To facilitate the implementation of the intervention, an instructional resource manual was developed that covered the relationship between morphological awareness, word learning, and literacy acquisition as well as details of the eight intervention sessions with implementation guidelines, instructional sheets, and student activities. Two workshops were also conducted prior to the intervention to familiarize the teachers with the contents of the resource manual. The teachers were also given flexibilities in implementing the intervention. They had full freedom as to how to adjust classroom organization and lesson plans to accommodate the intervention. Finally, as the intervention was progressing, classroom observations were conducted in the intervention, and the control schools and a few focused group discussions (FGDs) were arranged for the intervention teachers. Our classroom observations suggested that during the intervention period, morphological instruction was never a focus of the English language classes in the control school, whereas it had been conducted by the intervention teachers, albeit at various levels of depth

and duration. The FGDs suggested that overall the teachers had a positive view of the intervention, although due to concerns about inadequate time for teaching the STELLAR curriculum, the intervention was not necessarily fully implemented by all teachers.

## **Tasks**

The following tasks were administered two times, one at the end of Grade 3 (pre-test) and the other at the end of the first semester of Grade 4 (posttest). All tasks were printed on paper and group administered in classes by English language teachers. To reduce possible influence of decoding on children's performance on the tasks, we encouraged teachers to read aloud the instructions and the items of each task as students were working on its printed version.

### **Morphological Relatedness**

Children were to judge whether the second word in a word pair "came from," or was morphologically related to, the first word. The task included 15 related (e.g., *think* and *thinker*) and 15 unrelated (e.g., *too* and *tooth*) word pairs. A practice item was also provided. The reliability (Cronbach's  $\alpha$ ) of the task was .832 and .847 for the pre- and the posttest, respectively.

### **Affix Choice (Real)**

This task touched on children's knowledge of the grammatical function of derivational affixes. Children were to select an appropriate derived form to fill in a sentence (e.g., *It is not easy to measure the \_\_\_of light.*) followed by three real derived words that shared a same stem (*intensely, intensify, intensity*). To choose *intensity* as the answer, children would need to know that a noun was required of the blank and the suffix *-ity* nominalizes an adjective. The task had 15 test items and a practice item. The Cronbach's  $\alpha$  was .783 and .816 for the pre- and the posttest, respectively.

### **Affix Choice (Pseudo)**

This task was the same as the affix choice (real) task except that it had three pseudo derivatives formed with a same decodable base. For example, *I could feel the \_\_\_.* (*froody, froodful, froodment*). If a child knew that *-ment* is a nominalizer suffix, he/she should be able to correctly choose *froodment* as the answer. This task also

had 15 test items and one practice item. The pre- and posttest reliability was .730 and .879, respectively.

### **Morphological Production**

For this task, children were to produce an appropriate derived form of a given base word to fill in the blank in a sentence that was simple both lexically and grammatically. For example, *drink: The water in this area is not \_\_\_\_*. There were 40 test items and a practice item in this task. The Cronbach's  $\alpha$  was .943 and .952 for the pre- and the posttest, respectively.

### **Meaning Inference**

This task tapped children's word learning ability or the ability to apply their knowledge of affixes and derivational structure to infer meanings of unfamiliar English derivatives. Four meaning choices with simple grammatical structures were constructed for each target word. Children were to select the best choice for each word. This task included 20 test derived words and a practice word. To make sure that the test tapped lexical inference ability rather than vocabulary knowledge, the base morphemes of the target words, as opposed to the whole words, were frequent and had been learned by the children. For example, the word *familiarize* was followed by four answers: *to make known*, *to become famous*, *a large family*, and *with a knowledge of*. The Cronbach's  $\alpha$  for the pre- and the posttest was .613 and .640, respectively.

## **Results**

### ***Intervention Effects***

Table 12.1 shows the control and the intervention groups' pretest and posttest scores. For the posttest, both the raw score means and the means adjusted for the pretest scores are provided. To address Research Questions 1 and 2, two sets of group comparisons with significance testing were conducted for each of the five tasks: one of the pretest scores with independent sample *t*-tests to address pre-intervention group equivalence, and the other of the posttest scores via ANCOVA with the pretest scores as a covariate.

As Table 12.1 shows, for all tasks, there was no significant pretest difference between the control and the intervention groups, indicating group equivalence prior to the intervention. The covariate, or the pretest scores, explained a significant proportion of the variance in the corresponding posttest scores, for all tasks. A

**Table 12.1** Means and standard deviations of control and intervention groups' pre- and posttest scores and group comparisons

Measure	Control		Intervention		$t(df)/F(df)$	$p$	Effect size
	$M$	$SD$	$M$	$SD$			
<i>Morphological relatedness</i>							
Pretest	22.38	4.99	23.38	5.19	1.264 (163)	.208	–
Posttest 1*	24.35	4.89	25.93	4.05	–	–	–
Posttest 2**	24.61	3.71	25.69	3.70	3.464 (1, 162)	.065	$d=0.24$
					76.507 (1, 162)	<.001	$R^2 = .341$
<i>Affix choice (real)</i>							
Pretest	8.87	3.12	9.83	3.57	1.819 (163)	.071	–
Posttest 1*	9.44	3.47	11.26	3.43	–	–	–
Posttest 2**	9.79	2.60	10.94	2.60	8.208 (1, 162)	.005	$d=0.32$
					135.066 (1, 162)	<.001	$R^2 = .490$
<i>Affix choice (pseudo)</i>							
Pretest	7.47	3.24	7.99	3.40	1.003 (163)	.317	–
Posttest 1*	8.32	3.26	9.47	3.65	–	–	–
Posttest 2**	8.51	2.58	9.29	2.58	3.795 (1, 162)	.053	$d=0.22$
					133.957 (1, 162)	<.001	$R^2 = .467$
<i>Morphological production</i>							
Pretest	13.68	8.70	16.13	9.33	1.736 (163)	.084	–
Posttest 1*	15.97	10.21	20.76	9.79	–	–	–
Posttest 2**	17.24	4.40	19.59	4.40	11.638 (1, 162)	<.001	$d=0.23$
					685.728 (1, 162)	<.001	$R^2 = .819$
<i>Meaning inference</i>							
Pretest	6.54	2.16	6.72	2.70	.465 (163)	.643	–
Posttest 1*	7.14	2.79	8.30	3.21	–	–	–
Posttest 2**	7.20	2.56	8.25	2.56	6.873 (1, 162)	<.01	$d=0.34$
					63.472 (1, 162)	<.001	$R^2 = .308$

Note: \*Raw score means and standard deviations; \*\*pretest adjusted means and standard deviations

$d$  = Cohen's  $d$

$R^2$  refers to the proportion of variance in the posttest explained by the pretest (i.e., covariate)

comparison of the pretest adjusted means of the posttest revealed that the intervention group failed to outperform the control group significantly on the morphological relatedness task ( $F[1, 162]=3.464, p=.065$ ), and the effect size was small (Cohen's  $d=.24$ ). Similar analyses revealed that for the affix choice (real) task, the intervention group significantly outperformed the control group,  $F(1, 162)=8.208, p=.005$ , with a small effect size (Cohen's  $d=.32$ ); for the affix choice (pseudo) task, the intervention group's posttest performance was better than that of the control group with marginal significance,  $F(1, 162)=3.795, p=.053$ , Cohen's  $d=.22$ , indicating a small effect size. The intervention group also significantly outperformed the control group on the posttest of the morphological production task with a small effect size,  $F(1, 162)=11.638, p<.001$ , Cohen's  $d=.23$ . Finally, with regard to word learning

**Table 12.2** Correlations between pretest measures with control and intervention groups combined

	Measure	1	2	3	4	5
1	Morphological relatedness	–				
2	Affix choice (real words)	.413***	–			
3	Affix choice (pseudo words)	.377***	.639***	–		
4	Morphological production	.451***	.729***	.650***	–	
5	Meaning inference	.346***	.492***	.517***	.534***	–

\*\*\* $p < .001$

**Table 12.3** Correlations between pretest measures

	Measure	1	2	3	4	5
1	Morphological relatedness	–	.352***	.315**	.493***	.411***
2	Affix choice (real)	.476***	–	.673***	.763***	.530***
3	Affix choice (pseudo)	.344***	.590***	–	.643***	.538***
4	Morphological production	.384***	.672***	.652***	–	.545***
5	Meaning inference	.253*	.434***	.489***	.521***	–

Note: Control group below diagonal; intervention group above diagonal

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

ability, ANCOVA also revealed significantly better performance of the intervention group on the posttest,  $F(1, 162) = 6.873$ ,  $p < .01$ . Like all other measures, the effect size was small (Cohen's  $d = .34$ ).

### *Contribution of Morphological Awareness to Word Learning*

To address the third research question, that is, the relationship of morphological awareness to lexical inference ability longitudinally, correlational analyses were conducted. As shown in Table 12.2 (the two groups combined), all four morphological awareness measures, which were themselves significantly correlated, had significant and positive correlations with meaning inference. Morphological awareness measures that tapped a deeper level of morphological analysis were more strongly correlated with meaning inference (i.e.,  $r_s = .492, .517, .534$  for affix choice [real], affix choice [pseudo], and morphological production, respectively; all  $p_s < .001$ ) than was a measure that only touched upon segmental or surface structural analysis of English derivatives (i.e., morphological relatedness;  $r = .346$ ,  $p < .001$ ). Multiple regression analysis further indicated that the four morphological awareness measures significantly predicted children's word learning ability, and together they explained about 34.9% of the variance in meaning inference,  $F(4, 160) = 21.401$ ,  $p < .001$ . Table 12.3 provides the correlations between the five measures separately for the control and the intervention groups. Overall, the patterns were consistent

**Table 12.4** Correlations between posttest measures

	Measure	1	2	3	4	5
1	Morphological relatedness	–	.486***	.461***	.516***	.420***
2	Affix choice (real)	.527***	–	.817***	.788***	.685***
3	Affix choice (pseudo)	.491***	.770***	–	.811***	.744***
4	Morphological production	.595***	.848***	.729***	–	.705***
5	Meaning inference	.581***	.656***	.656***	.692***	–

Note: Control group below diagonal; intervention group above diagonal

\*\*\* $p < .001$

with that of the two groups combined, although the correlations appeared to be a little stronger among the intervention group than the control group. Multiple regression analyses showed that for both groups, morphological awareness significantly predicted meaning inference,  $F(4, 74) = 8.481$ ,  $p < .001$ ,  $R^2 = .314$  and  $F(4, 81) = 13.166$ ,  $p < .001$ ,  $R^2 = .394$ , for the control and the intervention group, respectively.

The correlations between children's posttest performance on the five tasks are shown in Table 12.4. While the correlational patterns were similar to those of the pretest, a clear difference was that the posttest correlations between the morphological awareness measures and meaning inference and between the morphological awareness measures themselves were higher than those of the pretest, for the control as well as the intervention groups. For the relationship between morphological awareness and meaning inference among the control group,  $r_s = .581$ ,  $.656$ ,  $.656$ , and  $.692$  (all  $p_s < .001$ ) for morphological relatedness, affix choice (real), affix choice (pseudo), and morphological production, respectively. The correlations of the intervention groups were, respectively,  $.420$ ,  $.685$ ,  $.744$ , and  $.705$  (all  $p_s < .001$ ). Multiple regression analyses further confirmed that morphological awareness was more predictive of meaning inference in the posttest than in the pretest. The four measures together explained about 56.5% and 59% of the variance in meaning inference in the control ( $F[4, 74] = 24.034$ ,  $p < .001$ ) and the intervention group ( $F[4, 81] = 29.156$ ,  $p < .001$ ), respectively.

## Discussion

### *Intervention Effects*

The semester-long teaching of English derivational morphology led to enhanced development of derivational awareness as well as word learning ability defined as the ability to infer meanings of unknown derivational words. Because of the wide coverage of derivational knowledge and skills in the intervention, there is no wonder that the children in the intervention classes outperformed their peers in the control classes on the two affix choice tasks and the morphological production task.



And because of the intervention group's broader and more in-depth knowledge of derivational affixes and derivational structure after the intervention, it is also no surprise that their performance was better on the meaning inference task, which necessitated segmenting an unfamiliar derivative into its morphemic constituents (i.e., base and affix[es]) and synthesizing the meanings of the constituents with consideration of the part-of-speech information signaled by the suffix in the target word.

These findings, on one hand, corroborate previous research on primary school children that focused on a similar topic. For example, Baumann et al. (2002) documented the advantage of teaching English prefix families and "morphemic analysis" (p. 150) over other vocabulary strategies for inferring meanings of unknown words. On the other hand, they showed some differences from previous studies. One difference is that a significant intervention effect failed to surface for the morphological relatedness task. We conjecture that this result may be attributed to the nature of the task itself and the development stage of the participants. The morphological relatedness task, by nature, measures structural analysis ability at the surface level, which develops rather rapidly (e.g., Berninger et al. 2010; Tyler and Nagy 1989). It seems to be a rather easily acquired competence as opposed to the other skills measured in the present study (i.e., affix choice and morphological production) that tapped a deeper level and a broader range of morphological knowledge that usually requires a longer time to develop (Mahony 1994; McCutchen et al. 2008; Tyler and Nagy 1989). Some previous studies found that normally developing children's performance on tasks similar to the morphological relatedness task was near ceiling by approximately Grade 4 or a little earlier, without having received any morphology-focused instruction (e.g., Berninger et al. 2010; Tyler and Nagy 1989). This similarly happened to the children in the control group in the present study, particularly at the end of the first semester of Grade 4 (see Table 12.1). It seems to suggest that with increased literacy practices and enlarged exposure to printed words, upper primary students, without any need of morphological instruction, could well achieve a similar level as those who have received some instruction. It also seems reasonable, therefore, that the finding of the present study, which focused on normally developing fourth graders, differed from the small number of previous studies that had reported a significant intervention effect with respect to the ability that pertains to morphological segmentation or relatedness, because those studies were either focused on younger children, such as preschoolers or older children with reading difficulties (e.g., Berninger et al. 2003; Casalis and Cole 2009).

Another major difference is that the effect sizes of the intervention were small in the present study and smaller than those of previous studies. Bowers et al.'s (2010) recent meta-analysis of morphological instruction studies yielded an average size of Cohen's  $d = .65$  of 37 effects that touched upon skills at the morphological level (i.e., a sub-lexical level) (see Bowers, et al.'s Table 3, p. 160) and Cohen's  $d = .35$  of 34 effects that touched upon lexical inference or vocabulary knowledge (or lexical level; see Bowers, et al.'s Table 4, p. 162). On the other hand, in correspondence to these categories, the effect sizes were obviously smaller in the present study: Cohen's  $d$ s = .24, .32, .22, and .23 at the sub-lexical level (i.e., the four morphologi-

cal awareness measures) and .34 at the lexical level (i.e., meaning inference) (see Table 12.1).

The discrepancies in the effect size could be due to the many variations between the present study and the previous ones. In their meta-analyses, Goodwin and Ahn (2010) and Bowers et al. (2010) considered a variety of factors that had led to fluctuating effect sizes in previous morphological instruction research. In addition to linguistic categories of outcome measures (i.e., sub-lexical, lexical, and supra-lexical; Bowers et al. 2010), the factors could be related to participants (e.g., age/grade and type of students), instructional design (e.g., goals, length, intensities of intervention), and research design (e.g., group assignment, that is, whether control and intervention groups are natural classes of students or they are randomly assigned or matched).

While any difference in any one of the factors above could have resulted in the small(er) effect sizes of the present study, we would like to highlight the length of intervention. Goodwin and Ahn's (2010) meta-analysis indicated that the number of hours could well moderate the size of intervention effect, disregarding the other factors that might interact with this variable of intervention length. For example, they reported that the average effect size was 0.15 and 0.31 for interventions that were 5–10 h and 10–20 h, respectively. Given that our intervention was less than 7 h and that the intervention was not necessarily implemented to its fullest length, the small(er) effect sizes obtained in the present study appear to be reasonable. Having said this, we admit that such a comparison of the effect size of our study with the one reported in Goodwin and Ahn (2010) is exploratory only, as the possible influence of length of intervention may well be moderated by many other factors like student group and research design, as we described above.

### ***Morphological Awareness and Word Learning***

We found that all four derivational awareness measures were significantly correlated with meaning inference, for both pre- and posttests, and they explained a large amount of variance in meaning inference, particularly for the posttest. Such a close relationship of morphological awareness to lexical inference is reasonable as successful resolution of the meanings of unknown derivatives necessitates not only the ability to segment the words into their constituent morphemes, i.e., base and affix(es), but also a knowledge of what these components mean, how an affix modifies the meanings of the base, and how it may or may not change the part of speech of the base. This finding is also consistent with previous research that has addressed a similar issue, for example, Bowers and Kirby (2010) on native English-speaking children and Zhang (2013) on young learners of English as a foreign language.

In addition, a few interesting findings also emerged. To begin with, we found that children's performance on the morphological relatedness task, which addressed surface structural analysis, was less, albeit significantly, correlated with meaning inference as compared to the performance on other morphological awareness tasks. This

seems to suggest that at upper primary and probably higher levels as well, deriving the meaning of an unknown complex word may be less determined by structural sensitivities; instead, knowledge of the meanings of constituent morphemes and the functions of affixes may matter more. Such an observation seems also derivable from Nagy et al. (1993) where some students at the middle grades failed to pay attention to how a suffix modified the meaning of an unknown word – they relied heavily on the base to decide the meaning of the whole word, despite their presumably high level of morphological segmentation ability.

Another finding worth noting is the strengthening of relationship between morphological awareness and lexical inference. Logic suggests that with more refined morphological knowledge (e.g., knowledge of more affixes, more in-depth understanding of the functions of suffixes, stronger representation of morphemes and their structural connections in the mental lexicon), learners are more likely to use morphological problem solving for new word learning, instead of relying largely on such vocabulary strategies as rote memory or mnemonics that seem to be more typical of early primary years. Reciprocally, with their increasing use of morphological analysis for inferring meanings of unknown derivatives as they progress to upper primary, children are processing derived words more frequently and deeply. As a result, their morphological knowledge and representation of morphological information in the mental lexicon is likely to become stronger, which further contributes to their lexical inference success. Therefore, the strengthening of the relationship between morphological awareness and lexical inference should be expected. However, the small number of previous studies failed to address this issue directly as they were largely cross-sectional and focused only on one group of students or a particular period of development (e.g., Zhang 2013; Zhang and Koda 2012). Bowers and Kirby (2010), though a longitudinal study, only pretested children's oral vocabulary knowledge and posttested their base identification and morphological vocabulary, and consequently, there was no way to compare the relationship between the measured competencies between pre- and posttests. In this regard, the present study has provided empirical support for how the strength of the relationship between morphological awareness and lexical inference could be changing longitudinally.

## Conclusions

This chapter reported some preliminary findings of a semester-long morphological intervention study on Grade 4 children in Singapore, focusing on the development of derivational awareness and word learning ability and the relationship between these competencies. Overall, the intervention accelerated the development of morphological competencies, although the effect size of the intervention was small. In addition, correlation-based analyses showed that the relationship of morphological awareness to lexical inference became stronger longitudinally, which was true of the intervention as well as the control groups.

In conclusion, we would like to point out that morphological analysis is by no means the only way for inferring meanings of unknown words. The study reported in this chapter focused only on morphological analysis of isolated derivatives, because our interest lay in how morphological awareness is related to the ability to use intra-word clues to infer word meanings. This chosen focus was not to downplay other means for lexical inferencing. Incidental learning of words draws upon structural as well as contextual analysis (Nagy and Scott 2000). Good vocabulary programs should not be restricted to morphological strategies; other strategies, such as contextual analysis and direct teaching of word meanings, should also be integral components.

The above argument seems particularly reasonable if the needs of lexically poor learners are considered with reference to the intricate relationship between morphological awareness, lexical inference, and vocabulary knowledge. While morphological awareness contributes to lexical inference, which eventually leads to a larger vocabulary, morphological awareness itself relies on large amounts of lexical processing for refinement. Consequently, the larger a learner's vocabulary is, the more refined his/her representation of morphological units. In addition, successful lexical inference also relies on adequate vocabulary knowledge, such as root word knowledge. As Nagy (2009) pointed out, "the students with the smallest vocabularies are least likely to make the generalization from the root word to its prefixed and suffixed relatives" (p. 485). Thus, to help lexically poor students get out of the vicious cycle – smaller vocabulary, poorer representation of morphemic units, less able to use morphological analysis to learn new words, and subsequently, less able to increase their vocabulary breadth – vocabulary instruction should not stop at introducing new affixes. Instead, it should go hand in hand with other strategies, such as strategic teaching of carefully selected words and making the classroom a word-rich environment (Beck et al. 2002; Nagy 2009).

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## References

- Anglin, J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development*, 58(10), 1–187. doi:10.2307/1166112.
- Bauer, L., & Nation, P. (1993). Word families. *International Journal of Lexicography*, 6, 253–279. doi:10.1093/ijl/6.4.253.
- Baumann, J. F., Edwards, E. C., Font, G., Tereshinski, C. A., Kame'enui, E. J., & Olejnik, S. (2002). Teaching morphemic and contextual analysis to fifth-grade students. *Reading Research Quarterly*, 37, 150–176. doi:10.1598/RRQ.37.2.3.

- Baumann, J. F., Edwards, E. C., Boland, E., & Font, G. (2012). Teaching word-learning strategies. In J. F. Baumann & E. J. Kame'enui (Eds.), *Vocabulary instruction: Research to practice* (2nd ed., pp. 139–166). New York: The Guilford Press.
- Beck, I. L., McKeown, M., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: The Guilford Press.
- Berninger, V., Nagy, W., Carlisle, J., Thomson, J., Hoffer, D., Abbott, S., & Aylward, E. (2003). Effective treatment for dyslexics in grades 4 to 6. In B. Foorman (Ed.), *Preventing and remediating reading difficulties: Bringing science to scale* (pp. 382–417). Timonium: York Press.
- Berninger, V. W., Abbott, R. D., Nagy, W., & Carlisle, J. (2010). Growth in phonological, orthographic, and morphological awareness in Grades 1 to 6. *Journal of Psycholinguistic Research*, 39, 141–163. doi:10.1007/s10936-009-9130-6.
- Bowers, P. N., & Kirby, J. R. (2010). Effects of morphological instruction on vocabulary acquisition. *Reading and Writing*, 23, 515–537. doi:10.1007/s11145-009-9172-z.
- Bowers, P. N., Kirby, J. R., & Deacon, S. H. (2010). The effects of morphological instruction on literacy skills: A systematic review of the literature. *Review of Educational Research*, 80, 144–179. doi:10.3102/0034654309359353.
- Carlisle, J. F. (2000). Awareness of the structure and meaning of morphologically complex words: Impact on reading. *Reading and Writing*, 12, 169–190.
- Carlisle, J. F. (2010). Effects of instruction in morphological awareness on literacy achievement: An integrative review. *Reading Research Quarterly*, 45, 464–487. doi:10.1598/RRQ.45.4.5.
- Carroll, J. B., Davies, P., & Richman, B. (1971). *The American heritage word frequency book*. Boston: Houghton Mifflin.
- Casalis, S., & Cole, P. (2009). On the relationship between morphological and phonological awareness: Effects of training in kindergarten and in first-grade. *First Language*, 29, 113–142. doi:10.1598/RRQ.45.4.5.
- Chall, J. S., & Jacobs, V. A. (2003). The classic study on poor children's four-grade slump. *American Educator*, 27(1), 14–15, 44.
- Clark, E. V. (1993). *The lexicon in acquisition*. Cambridge: Cambridge University Press.
- Clark, E. V., Gelman, S. A., & Lane, N. M. (1985). Compound nouns and category structure in young children. *Child Development*, 56, 84–94. doi:10.2307/1130176.
- Deterding, D. (2007). *Singapore English*. Edinburgh: Edinburgh University Press.
- Goodwin, A. P., & Ahn, S. (2010). A meta-analysis of morphological interventions: Effects on literacy achievement of children with literacy difficulties. *Annals of Dyslexia*, 60, 183–208. doi:10.1007/s11881-010-0041-x.
- Kieffer, M. J., & Lesaux, N. K. (2007). Breaking down words to build meaning: Morphology, vocabulary, and reading comprehension in the urban classroom. *The Reading Teacher*, 61, 134–144. doi:10.1598/RT.61.2.3.
- Kuo, L.-J., & Anderson, R. C. (2006). Morphological awareness and learning to read: A cross-language perspective. *Educational Psychologist*, 41, 161–180. doi:10.1207/s15326985ep4103\_3.
- Mahony, D. L. (1994). Using sensitivity to word structure to explain variance in high school and college level reading ability. *Reading and Writing*, 6, 19–44. doi:10.1007/BF01027276.
- McCutchen, D., Green, L., & Abbott, R. D. (2008). Children's morphological knowledge: Links to literacy. *Reading Psychology*, 29, 289–314. doi:10.1080/02702710801982050.
- MOE. (2008). *English language syllabus 2010*. Singapore: Curriculum Planning and Development Division, MOE.
- MOE. (2011a). *Nurturing active language learners and proficient users: 2010 Mother Tongue Languages Review Committee report*. Singapore: Ministry of Education.
- MOE. (2011b). *STELLAR teachers' guidelines* (unpublished curriculum documents). Singapore: Curriculum Planning and Development Division, Ministry of Education.
- Nagy, W. (2009). Understanding words and word learning. In S. Rosenfield & V. Berninger (Eds.), *Implementing evidence-based academic interventions in school settings* (pp. 479–500). New York: Oxford University Press.

- Nagy, W. E., & Anderson, R. C. (1984). How many words are there in printed school English? *Reading Research Quarterly*, 19, 304–330. doi:10.2307/747823.
- Nagy, W. E., & Scott, J. (2000). Vocabulary processes. In M. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. III, pp. 269–284). Mahwah: Lawrence Erlbaum Associates.
- Nagy, W. E., Diakidoy, I.-N., & Anderson, E. C. (1993). The acquisition of morphology: Learning the contribution of suffixes to the meanings of derivatives. *Journal of Reading Behavior*, 25, 155–169. doi:10.1080/10862969309547808.
- Nagy, W., Berninger, V., & Abbott, R. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle-school students. *Journal of Educational Psychology*, 98, 134–147. doi:10.1037/0022-0663.98.1.134.
- Pakir, A. (2008). Bilingual education in Singapore. In J. Cummins & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (Bilingual education 2nd ed., Vol. 5, pp. 91–203). New York: Springer.
- Plag, I. (2003). *Word-formation in English*. Cambridge: Cambridge University Press.
- Ramirez, G., Chen, X., Geva, E., & Luo, Y. (2011). Morphological awareness and word reading in English language learners: Evidence from Spanish- and Chinese-speaking children. *Applied Psycholinguistics*, 32, 601–618. doi:10.1017/S0142716411000233.
- Silver, R. E. (2005). The discourse of linguistic capital: Language and economic policy planning in Singapore. *Language Policy*, 4, 47–66. doi:10.1007/s10993-004-6564-4.
- Singapore Department of Statistics. (2010). *Census of population 2010: Advance census release*. Retrieved from [www.singstat.gov.sg/pubn/popn/c2010acr.pdf](http://www.singstat.gov.sg/pubn/popn/c2010acr.pdf)
- Tyler, A., & Nagy, W. (1989). The acquisition of English derivational morphology. *Journal of Memory and Language*, 28, 649–667. doi:10.1016/0749-596X(89)90002-8.
- White, T. G., Sowell, J., & Yanagihara, A. (1989). Teaching elementary students to use word-part clues. *The Reading Teacher*, 42, 302–308.
- Zhang, D. (2013). Linguistic distance effect on cross-linguistic transfer of morphological awareness. *Applied Psycholinguistics*, 34(5), 917–942. doi:10.1017/S0142716412000070.
- Zhang, D., & Koda, K. (2012). Contribution of morphological awareness and lexical inferencing ability to L2 vocabulary knowledge and reading comprehension: Testing direct and indirect effects. *Reading and Writing*, 25, 1195–1215. doi:10.1007/s11145-011-9313-z.

# Chapter 13

## Commentary on ‘Practices’

Andy Hancock

### Introduction

The four chapters in this section address pedagogical practices in primary classrooms. The authors employ a variety of research methodologies and cover the themes of children’s engagement in reading, teaching morphological awareness, similarities and differences in teaching languages and the transmission of Chinese culture in Chinese language lessons.

There has been a trend over recent years for Singapore to act as a magnet for sojourns from international policymakers and politicians. These sojourns attempt to learn from classroom practices as a result of Singapore’s high educational performance in the Programme for International Student Assessment (PISA) ranking. The focus of these visits from the perspective of the United Kingdom (UK) is on attainment in prestigious subjects such as Maths and Science and not on Singapore’s enlightened quadrilingual language policy. Therefore, the focus in this section on the details of classroom discourse and analysis of practice provides a welcome insight behind the facade of an educational ‘success’ story.

At the same time, concerns about high-stakes testing, rote learning, learners’ lack of creativity and independent thinking have seen the East looking to the West for guidance on educational practices (Zhao 2013). However, Alexander (2000) believes that there is far more to the effectiveness of pedagogy than making a simple choice between whole class teaching, group work and individual attention. Rather, it is how policy, structure and practice relate to the context of culture. This can involve teachers’ belief systems, parents’ attitudes and values, children’s experiences and motivations and, importantly, the relationships and interactions between

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teachers and children. Some of these issues are touched on in other parts of this volume (e.g., Abu Bakar, this volume, on parents' attitudes and values; Aman, Chap. 3, this volume, on teachers' belief systems), whilst this section focuses on classroom practices and teacher-student interactions.

In educational debates there is often a temptation to exaggerate the perceived divergent pedagogical approaches to learning in schools in the East and West. That is, educational ideologies based on Confucian heritage countries can be perceived as one of socialisation and correct conduct where the teaching and learning relationship is one of transmission and compliant reception of information (Curdt-Christiansen and Silver 2012; Rao et al. 2009). Usually, such descriptions contrast with portrayals of child-centred classrooms in 'Western' countries exhibiting an emphasis on the child's active construction of knowledge whilst the teacher's role is to stage-manage appropriate activities for the learner. In these settings children's collaborative talk, around authentic tasks, is seen as serving as a conduit for the expression of their thinking. However, the use of the broad terms 'East' and 'West' in the literature on educational systems can be perceived as problematic as they contain sweeping generalisations and mask the variability of human experience.

A more realistic picture is to acknowledge that conceptions of teaching and learning are not fixed but vary within and across different educational contexts. For example, it may be misleading to suggest that whole class direct teaching or memorisation plays no part in 'Western' schools when one considers moves towards traditional methods of literacy instruction and prescribed synthetic phonic programmes currently in vogue in the UK (Campbell et al. 2012). Of interest, the emerging trends in curriculum development in both Scotland and Singapore show an element of congruence. As explained in the chapters, the Ministry of Education in Singapore has made pronouncements such as 'Teach Less, Learn More' and has articulated a need to shift classroom pedagogy towards more learner-centred instruction as well as greater learner independence, critical and creative thinking and individualisation. This echoes current thinking embedded in Scotland's *Curriculum for Excellence* which aims to transform school practices by situating the learner and learning at the centre of the process – including critical thinking, interdisciplinary learning and personalised learning approaches. How schools as social organisations, and teachers as social actors then mediate and translate curriculum guidance into classroom practice (Priestley and Miller 2012) is worthy of pursuit. The authors in this section provide clear insights into this question.

A common theme running through the chapters is a mismatch between policy and practice and educators' preference for whole class teaching with few opportunities for children to explore new information independently and engage in a variety of activity types. Alexander (2008) suggests ways of rethinking classroom organisation and relationships by fostering repertoires of organising interaction, teaching talk and learning talk. His seminal work on dialogic teaching outlines five criteria – collective, reciprocal, supportive, cumulative and purposeful, all of which may provide a useful focus for reflective practice and enhancing interactions in classrooms in Singapore.



However, any change needs to be cognisant of cultural concepts of teaching and learning. Yang (this volume) illustrates how teachers act as cultural carriers and their ideological perspectives imbued within teacher talk, including classroom rituals (which can be deep or subtle), continue to be influential in classrooms. He gives the examples of cultural practices such as asking the children to recite a nursery rhyme in chorus as a behaviour management strategy. A further ingredient is the perception of the teacher as an authority figure and the teaching of 'politeness', which can impact on relationships fostered in the classroom. Alexander (2008) draws on research conducted in schools in England and outlines some of the challenges of transforming the culture of talk and classroom relationships and warns that "recitation remains the default teaching mode. It takes little for 'test' questions to reassert their historic dominance, for children's contributions to regress to the monosyllabic or dutiful, and for feedback to become once again phatic or uninformative" (p. 111). But, as Vaish (this volume) argues, teachers need to be sensitised to a repertoire of interactional patterns and practices to encourage talk and engagement in classrooms.

The Learning Support Program at the centre of Vaish's study (this volume) shows that whole class lecturing styles were not as effective as teaching episodes where talk and interaction were featured. The practice of 'pull-out' for 'low-achieving' learners can have detrimental effects on children's self-esteem but this learning environment can also promote positive learning relationships by providing more opportunities for scaffolding by adults and peers. This has implications for teaching in both small group 'pull-out' lessons and mainstream classrooms although this methodology needs interrogating more. For instance, do some learning support coordinators reflect on the efficacy of some of the traditional practices when faced with the challenges of engaging and motivating low-achieving children and therefore consciously incorporate more kinaesthetic learning in their lessons? Are these tailored approaches restricted to more manageable small groups of children? Was this modification due to groups consisting mainly of children whose home language is not English and where interaction and talk are required to support children's proficiency in English? (Hancock 2012) Finally, can this model of student engagement and interaction be transferred and replicated in mainstream classrooms?

Moves towards more inclusive classrooms in many countries have seen teachers adjust their practices to differentiate teaching and learning in order to accommodate the variety and complexity of learning needs of learners. As mainstreaming is about access and inclusion, this involves a shift away from low-achieving learners being seen chiefly as the sole responsibility of a specialist teacher to a concept of two or more teachers working in partnership to plan for differentiation. This model is about viewing all teachers as 'language-sensitive' teachers as illustrated in the Te Kete Ipurangi curriculum in New Zealand (<http://www.tki.org.nz/r/esol/esolonline/>). Research by Ellis (1994) shows that during collaborative activities, more proficient speakers of a language modify their speech to support the understanding of their less proficient partners. In the interests of sharing meaning, they explain words, expand phrases and reorganise sentences in ways which not only stretch them linguistically and intellectually but also provide a resource for the acquisition of English.

However, interpretations of ‘partnership’ vary widely and different arrangements and a range of models exist (Gravelle 2006).

The article by Silver et al. states that the four official languages (Chinese, English, Malay and Tamil) purport to have equal status but that the languages have different histories and cultural allegiances, as well as diverse orthographies which are learnt in different ways. Frequently studies in this field are conducted in isolation and are language specific, whereas this chapter investigates teaching classroom practices in the first 2 years of primary school across all four languages after the introduction of the new language syllabi. The authors describe a “siloeled approach to language instruction” (p. 176) as classroom observations indicate a lack of evidence of linkage across languages or attempts to view and develop children’s bilingual competence holistically. Furthermore, there were no common topics addressed in English Language (EL) and mother tongue (MT) lessons. This is reminiscent of what Cummins (2007) called “the two solitudes” approach to language learning in bilingual programmes in Canada. In response to this critique, an attempt was made in Canadian schools to blur the language boundaries in an immersion programme through a bilingual read-aloud project (Lyster et al. 2009). This project was based on French and English teachers using the same storybooks and alternating the reading of chapters in the different language classrooms. In this way teachers’ engagement in cross-curricular and cross-linguistic collaboration was enhanced. A partnership approach of this type would be appropriate for Singapore schools to consider (see Goh and Lim, this volume).

In the chapter by Zhang and Li (this volume), it is noted that the English language syllabus calls for a principled blend of first language and second language teaching methods. This can include teaching aspects of lexical knowledge such as morphological awareness. The authors show how an intervention programme involving teaching derivational morphology to fourth graders can impact on children’s lexical building. Morphological awareness is associated with children’s reading development in several languages and is particularly salient in Chinese (Lui and McBride-Chang 2010). Consequently there is the potential to tap into children’s metalinguistic understandings by explicit teaching of word formation rules within communicative contexts. This allows children to reflect on the similarities and differences of morpheme manipulation across languages in order to support biliteracy vocabulary growth. For example, using this principle, Lyster et al. (2013) outlined an innovative project that employed cross-lingual teaching strategies integrating derivational morphology with a thematic focus on illustrated storybooks.

The challenge is transforming institutional practices and finding space for teachers to co-design biliteracy instruction and time to reflect on their practice-based knowledge. Collaboration with colleagues can include promoting joint training and opportunities for reciprocal observations of teaching and learning. These observations should be conducted in the spirit of respectful dialogue, and, where conflicting pedagogies exist, these contentions can be used as a stimulus for critical reflection and professional enquiry. Kenner and Ruby (2012) have shown how teachers working together as equal partners can build rapport with children and draw on their bilingual resources in a holistic way by making curricular links. Their study provides

evidence that when children's lessons are interconnected, their learning thrives. This again suggests a possible way forward for Singapore.

Silver and Bokhorst-Heng (this volume) note that shifts to English in the broader Singaporean society have caused a few primary schools to opt to teach noncore subjects, such as Art and Physical Education in the MT (usually Chinese), as a way to increase opportunities to learn the language albeit this practice remains uncommon. There are a number of instances internationally where opportunities have been created for teachers and students to focus on both language goals and content goals in their lessons in order to shift attention away from explicit language instruction. The employment of content language integrated learning (CLIL) as part of mainstream education is a rapidly growing phenomenon in Europe (Eurydice 2012) with research confirming the benefits for CLIL students in motivation, language competency and thinking skills (Lasagabaster 2010). However, CLIL needs to be viewed in the light of continuing international efforts to integrate English into national educational systems where English is not the dominant language of society. How this effective methodology translates to teaching more subjects through the medium of the MT in the Singapore context is open to debate, but it could help allay concerns about declining MT proficiency and act as a tool for engaging and motivating students to learn their MT for educational purposes.

According to Silver et al. there was some evidence of the use of English in MT lessons. This type of classroom discourse is no doubt due to the shift towards the use of English in Singapore society. However, the chapters also suggest that the lived experiences of children growing up in Singapore include allegiances and affiliations to a variety of languages including different Chinese spoken varieties and the use of Singlish. This rich linguistic ecology means all classrooms have the potential to be important sites for translanguaging (García 2009). This could allow children to draw on their bilingual and biliterate resources as tools for learning. The challenge here is to balance the objective of learning 'Standardised English' or 'internationally accepted English' whilst also viewing classrooms as authentic learning terrains which value all languages as expressions of identity.

Although the focus of the study outlined in the Silver et al. chapter was on daily classroom teaching and not on assessment practices, the current debate about alternative assessment approaches is worth noting. Silver et al. found no involvement of students in assessment of their own learning and no discussion of the processes of learning. This can be compared to a number of countries, such as Scotland (Scottish Executive 2010), who have edged away from summative assessment to a focus on formative assessment techniques. This approach strives for high-quality interactions and feedback including self- and peer assessment to support learning. A recent Organisation for Economic Co-operation and Development (OECD) report noted that the curtailment of testing procedures for children in countries such as Norway has had a positive impact on children's self-esteem (OECD 2013).

Language and culture is interwoven and Yang's chapter shows how teachers attempt to employ a variety of strategies to convey knowledge and norms of Chinese culture in their Chinese lessons. This practice involves explaining *Hanzi* associated with the history of China and teaching the symbolic value of Chinese customs and

festivals to socialise children into particular ways of seeing the world. However, Yang also recognises a number of forces at play such as syllabi explicitly instructing teachers to inculcate Chinese culture and values in lessons when classrooms consist of increasing numbers of Chinese children coming from English-speaking homes. Further influential factors include children becoming more familiar with popular Chinese culture alongside the westernisation of Singapore society. As the chapters in this section testify, these tensions make classrooms vibrant sites for research as teachers and learners negotiate languages, identities, pedagogical practices and cultural messages in this increasingly complex and globalised world.

## References

- Alexander, R. J. (2000). *Culture and pedagogy: International comparisons in primary education*. Oxford: Blackwell.
- Alexander, R. J. (2008). Culture, dialogue and learning: Notes on an emerging pedagogy. In N. Mercer & S. Hodgkinson (Eds.), *Exploring talk in school* (pp. 91–114). London: Sage.
- Campbell, S., Torr, J., & Cologan, K. (2012). Ants, apples and the ABCs: The use of commercial phonics programmes in prior-to-school children's services. *Journal of Early Childhood Literacy*, 12(4), 367–388.
- Cummins, J. (2007). Rethinking monolingual instructional strategies in multilingual classrooms. *Canadian Journal of Applied Linguistics*, 10, 221–241.
- Curdtt-Christiansen, X. L., & Silver, R. E. (2012). Educational reforms, cultural clashes and classroom practices. *Cambridge Journal of Education*, 42(2), 141–161.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- European Commission/EACEA/Eurydice. (2012). *Key data on teaching languages at school in Europe 2012*. Brussels: Education, Audiovisual and Culture Executive Agency.
- García, O. (2009). *Bilingual education in the 21st century: A global perspective*. Oxford: Blackwell.
- Gravelle, M. (2006). 'I work in partnership with mainstream colleagues': Models of support. *NALDIC Quarterly*, 4(2), 26–29.
- Hancock, A. (2012). Inclusive practices for pupils with English as an additional language. In R. Arshad, T. Wrigley & L. Pratt (Eds.), *Social justice re-examined: Dilemmas and solutions for the classroom teacher* (pp. 97–113). Stoke-on-Trent: Trentham Books.
- Kenner, C., & Ruby, M. (2012). *Interconnecting worlds: Teacher partnerships for bilingual learning*. Stoke-on-Trent: Trentham Books.
- Lasagabaster, D. (2010). English achievement and student motivation in CLIL and EFL settings. *Innovation in Language Learning and Teaching*, 5(1), 3–18.
- Lui, P. D., & McBride-Chang, C. (2010). What is morphological awareness? Tapping lexical compounding in Chinese third graders. *Journal of Educational Psychology*, 102(1), 62–73.
- Lyster, R., Collins, L., & Ballinger, S. (2009). Linking languages through a bilingual read-aloud project. *Language Awareness*, 18(3–4), 366–383.
- Lyster, R., Quiroga, J., & Ballinger, S. (2013). The effects of biliteracy instruction on morphological awareness. *Journal of Immersion and Content-Based Language Education*, 1(2), 169–197.
- OECD. (2013). *Synergies for better learning: An international perspective on evaluation and assessment*. Paris: Author. Retrieved from <http://www.oecd.org/edu/school/synergies-for-better-learning.htm>.
- Priestley, M., & Miller, K. (2012). Educational change in Scotland: Policy, context and biography. *The Curriculum Journal*, 23(1), 99–116. doi:10.1080/09585176.2012.650490.

- Rao, N., Ng, S., & Pearson, E. (2009). Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice. In C. K. K. Chan & N. Rao (Eds.), *Revisiting the Chinese learner: Changing contexts, changing education* (pp. 255–280). New York: Springer.
- Scottish Executive. (2010). *Curriculum for excellence. Building the curriculum 5: A framework for assessment*. Edinburgh: Scottish Government.
- Zhao, G. (2013). Rebuilding the Chinese soul: Some considerations for education. *Frontiers of Education in China*, 8(4), 498–517.

# **Part V**

## **Reforms**

# Chapter 14

## Use and Impact of Spoken Tamil in the Early Tamil Classrooms

Seetha Lakshmi

### Introduction

According to the latest census (Singapore Department of Statistics 2010), Singapore's population is composed of 74.1% Chinese, 13.4% Malays, 9.2% Indians and 3.3% others. The majority of the Indians in Singapore are Tamils (54.3%) with this ethnic subgroup comprising 5% of the total population. Historically, the Tamil language has maintained a place in government, the arts and public relations since Singapore's independence. For example, as one of the official languages of Singapore, all court documents and public announcements are available in Tamil. Tamil language publications have received several awards such as the Literature Book Prize, Golden Point Award and Southeast Asian Write Award. The Tamil Language Council and Tamil associations in Singapore host an annual Tamil Language Festival to increase awareness of the position of the Tamil language in Singapore. The Singaporean government, through the Ministry of Education, also supports the learning and use of Tamil language in schools. All of these efforts are targeted at promoting and maintaining the status and use of the Tamil Language (TL) among Singapore's Indian community.

Despite these efforts, the population census and language-related surveys show that Tamil use is decreasing (Aman et al. 2006; Mani and Gopinathan 1983; Mani 1979; Sobrielo 1985). A survey of 1000 primary school students on the TL usage of the younger generation found that children speak Tamil more to older relatives than younger relatives and friends, and the children say that English is easier to use than Tamil (Ramiah 1991). Singapore census figures from 2010 show that 36.7% of the Singapore Indian population identify Tamil as their dominant home language, down from 42.9% in 2000 (Singapore Department of Statistics 2010, p. 11).

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Diglossia compounds the declining use of Tamil in Singapore. There are two distinct varieties of Tamil: a written (or ‘literary’) variety and a spoken variety. Generally, the spoken language is considered as the ‘low’ variety and the written variety as ‘high’. Saravanan et al. (2009) note that in Singapore the literary variety receives more attention in Tamil language classrooms with a tendency by teachers to equate ‘correctness’ – including when referring to oral correctness – with the literary form, rather than acknowledging that a spoken variety could be equally correct depending on context. Highlighting only the written variety for language instruction limits students’ linguistic repertoires (Schiffman 2003). The significance of this bias becomes especially evident in a context of language shift. Saravanan (1999, 2001) notes that the shift to English at home, evident across all ethnic communities including the Indian community, coupled with the focus on Written Tamil (WT) at school, reduces exposure to the spoken variety of Tamil and its appropriate use.

Adding to the issues of language maintenance and appropriate variety for instruction in schools, there are several oral forms in TL. WT can be used as a formal oral form, for example, in official announcements and speeches. Standard Spoken Tamil (SST) is used by the educated class for informal oral communication. SST is a standardized, educated, non-Brahmin variety (Zvelebil 1964, as cited in Kalaimani 1997; Lakshmi and Saravanan 2005; Schiffman 2002) that is understood by both literate and non-literate speakers. It is non-stigmatized, in contrast to Colloquial Tamil, and non-archaic.<sup>1</sup> It is used in Tamil movies and media programmes in India. In Singapore, informal media programmes hosted by Singaporean youth started using SST in 1995. It is the preferred form for speech in educational contexts (Ministry of Education [MOE] 2005, p. 14), thus the focus of this chapter. Another oral variety, Spoken Tamil (ST) is perceived as being the language used by the less educated and its use is discouraged in educational contexts. Finally, there are also spoken forms which are considered to be ‘colloquial’ or ‘non-standard’.

## Tamil Language in Schools

In Singapore, students in Tamil classrooms may be categorized in four main groups. The first group is comprised of Tamil Nadu-born students who have emigrated from India. Singaporean students who come from Tamil-speaking families make up the second group, and Singaporean children whose parents speak both Tamil and English belong to the third group (Lakshmi 2011). The fourth group comprises students who are ethnically Tamil but come from English-speaking families. There is also variation in pre-school education: some students have studied Tamil from pre-school onwards, while others have only started Tamil study in Primary 1.

As of 2005, the Tamil Language Curriculum and Pedagogy Review Committee recommended the use of SST as the medium of instruction in Tamil language classes

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<sup>1</sup> Written Tamil would be considered as ‘archaic’ when used as an informal, spoken variety.



and to teach all TL students the appropriate use of the SST spoken variety. Since 2008, the Tamil language syllabus has concentrated on SST and teachers have undergone training in using that variety. However, not all teachers are comfortable with this change. For example, based on an attitudinal survey of 46 TL teachers from Singaporean primary and secondary schools, Saravanan et al. (2009) found that for ‘suitability for teaching’, younger teachers were comfortable using SST in class, while older teachers were much less so.

With these tensions in mind – students with different home language backgrounds, different pre-school experiences and, assumedly, different proficiency levels as well as some potential differences in teacher attitudes vis-à-vis MOE recommendations – the present study examines the use of SST in TL classrooms at the Primary 1 and 2 (P1 and P2) levels to better understand if, when and how teachers make use of SST as part of their language instruction. Some discussion as to the pedagogical implications for language instruction is included.

## Methodology

This study was conducted 18 months after the new curriculum (MOE 2008), recommending the teaching and use of SST, was introduced. Data were collected from ten Tamil classes (5 P1 classes and 5 P2 classes) in eight schools in Singapore, a total of 20 hours and 10 minutes of audio and video recordings of individual lessons. All lessons were transcribed in Tamil and translated into English. (See Silver et al. this volume for information about the larger study from which these data were drawn.) Transcripts and translations were checked by the author, a Tamil-English bilingual user. Post-lesson interviews were also conducted with a selected number of teachers.

Transliteration<sup>2</sup> of data collected was done according to Schiffman’s definitions and procedures (2007) related to oral varieties of Tamil. Within the oral variety, as above, distinctions can be made between ‘Standard Spoken Tamil’, the educated oral variety which teachers and students are expected to use in schools (MOE 2005), ‘Spoken Tamil’ as an informal variety and ‘Colloquial’ Tamil as a variety which is considered to be ‘non-standard’ or inappropriate for classroom contexts. Data analysis for the oral varieties was done based on the analytical scheme developed by Schiffman (personal communication 2012) with input from Annamalai (personal communication 2012). Specifically, Schiffman provided detailed guidelines for identifying SST along with discussion of the need for teaching SST in the educational domain. Additional details were added based on recommendations given by Annamalai to create a complete SST coding scheme (Lakshmi 2014).

Briefly, distinctions among these varieties can be made based on the way words are pronounced, word choice and other linguistic features such as reduction of

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<sup>2</sup>Transliteration shows the Tamil sounds written in English script. All transcripts for this study, and excerpts in this chapter, show the Tamil in Tamil script, transliteration and English translation.

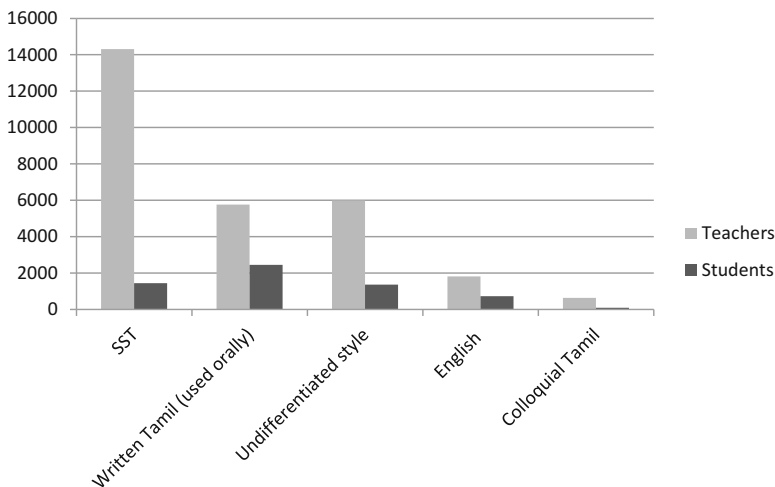
forms. (Examples are given in the excerpts of classroom speech later in this chapter.) Finally, the data were subjected to an interpretive analysis in which the author took the coding and related it to specific issues of use for SST in TL classrooms.

## Findings

### *Overview of Tamil Use in Primary 1 and 2 Classrooms*

In this section I first provide descriptive findings on SST use in the P1 and P2 Tamil language lessons observed. I then discuss related issues including the use of code-switching, teacher-student question-and-answer sequences and student proficiency.

Figure 14.1 provides an overview of language use in the TL lessons. What is clearly evident from this figure is that teachers overwhelmingly spoke more than students. In addition, when we look at the kinds of language they were using, we note that this dominance of teacher talk was true for all oral TL varieties. Teachers used substantially more SST than students, more WT (as an oral variety) than students, more of an undifferentiated style (forms which are undifferentiated for WT and ST) and more English. The only exception is that students used more colloquial, or ‘non-standard’, forms of Tamil than teachers, and students tended to use WT (in speech) rather than SST. In general, students tended to reply to teacher questions with a single word, no reply or a reply in English. However, some students did use full sentences and clear speech and showed greater proficiency for conversation.



**Fig. 14.1** Overview of language use in Tamil Language lessons

**Table 14.1** Language varieties used by teachers, by number of words

Class	1	2	3	4	5	6	7	8	9	10	
Grade	P1	P1	P2	P2	P2	P2	P1	P1	P1	P2	Total
SST	1386	1220	727	1628	1086	551	2280	3527	807	1102	14,314
	48%	47%	38%	46%	50%	66%	51%	65%	43%	39%	50%
Written Tamil (used orally)	421	739	490	522	549	153	482	1196	322	887	5761
	15%	28%	25%	15%	25%	18%	11%	22%	17%	31%	20%
Undifferentiated style	949	306	373	968	403	87	1101	671	676	461	5995
	33%	12%	19%	27%	19%	10%	25%	12%	36%	16%	21%
English	103	326	232	316	75	42	532	4	34	155	1819
	4%	12%	12%	9%	3%	5%	12%	0%	2%	5%	6%
Colloquial Tamil	22	23	100	116	45	2	60	0	34	234	636
	1%	1%	5%	3%	2%	0%	1%	0%	2%	8%	2%
Total	2881	2614	1922	3550	2158	835	4455	5398	1873	2839	28,525

**Table 14.2** Language varieties used by students, by number of words

Class	1	2	3	4	5	6	7	8	9	10	
Grade	P1	P1	P2	P2	P2	P2	P1	P1	P1	P2	Total
SST	8	229	101	93	209	108	95	418	150	36	1447
	7%	17%	15%	36%	21%	61%	17%	46%	18%	14%	24%
Written Tamil (used orally)	23	869	270	17	513	33	38	192	318	183	2456
	21%	64%	41%	7%	52%	19%	7%	21%	39%	71%	40%
Undifferentiated style	62	131	149	93	159	33	198	281	241	14	1361
	55%	10%	23%	36%	16%	19%	36%	31%	29%	5%	22%
English	15	118	126	57	86	4	208	10	87	18	729
	13%	9%	19%	22%	9%	2%	38%	1%	11%	7%	12%
Colloquial Tamil	4	21	12	0	17	0	10	1	28	5	98
	4%	2%	2%	0%	2%	0%	2%	0%	3%	2%	2%
Total	112	1368	658	260	984	178	549	902	824	256	6091

There was also variation in language use among teachers as shown in Table 14.1. For example, while the use of Colloquial Tamil was limited for teachers overall, the teachers in classes 3 and 4 tended to use more Colloquial Tamil than other teachers. The teacher in class 8 tended to use more Tamil that was undifferentiated in style. Teachers in classes 5, 6, 8 and 9 used considerably less English than teachers in other classes.

Table 14.2 shows the details for student language use during lessons. As noted above, students spoke much less overall, as compared with teachers. When students did speak, they used SST, WT, Colloquial Tamil and English. The classroom data (see, again, Tables 14.1 and 14.2 and Fig. 14.1) also shows that there was Tamil-English code-switching as well as variation in WT-SST-Colloquial Tamil use.

## *Distinctive Features of Language Use in the TL Classroom*

In this section, I look more closely at the ways in which the different varieties are used in the classroom, with a particular emphasis on SST pronunciation and vocabulary. These are two key features which distinguish SST from other Tamil varieties. I also address the use of English in the TL classroom.

### **Pronunciation**

In SST, words must be pronounced properly to distinguish them from WT and the more colloquial spoken variety. This is especially important in classrooms because, as above, students who do not use Tamil at home or who use only the colloquial variety at home need the models of SST provided by teachers at school. The classroom data show that teachers do distinguish and model SST and do model correct pronunciation as in Excerpt 14.1.

#### Excerpt 14.1

மாணவர் <i>maanavar</i> Student	ஆசிரியை, மீதி எழுத்துகள் இருக்கு <i>aasiriyai, miidi eRuttukaL irukku.</i> Teacher, remaining letters are there.
ஆசிரியர் <i>aaciriyar</i> Teacher	மீதி எழுத்துகள் இருக்கு. ஆஹ். ஏன் அத நான் குடுத்தேன்னா. உங்களுக்கு எந்த 'ரி', எந்த 'னி' போடறதுன்னு தெரியுமானு பாக்கறதற்கு. சரி, மேசைல இருக்கறதெல்லாம் அப்படியே வச்சிடுங்க. அப்புறமேட்டு எடுத்துக்கலாம். சரி எந்தெந்த மிருகங்கள் எல்லாம் வராதுன்னு கண்டுபிடிச்சிட்டீங்களா? <i>meedi eRuttukaL irukku. Aah. een ada naan kuDuutteennaa, ungaLukku enda 'ri', enda 'ni' pooDaRadunnu teriyumaanu paakaradarku, sari, meesaiyil irukkaradellaam appaDiyee vacciDunga. appurameettu eDuttukkalaam. sari. endenda mirugangaL ellaam varaadunnu kaNDupiDichiTTiingaLaa?</i>
ஆசிரியர் <i>aaciriyar</i> Teacher	வகுப்புக்கு முன்னாடி வந்து உக்காந்து செய்யப்போறீங்க. சரி, இந்தக் குழு இங்க வந்து உக்காருங்க. இந்த குழு, இங்க சரி உக்காருங்க. Inabel இங்கே உக்காரு. இங்கே உக்காரு, இங்கே உக்காரு. என்ன ஆச்ச, தூர்கா. இங்கே உக்காரு, Ok மித்ரா, நந்திகா இங்கே வா. சரி பார்க்கலாம். என்ன ஆச்ச ஸ்ரீதர் <i>vaguppukku munnaadi vandu ukkaandu seiyappooriinga. sari. inda kuRhu inga vandu ukkaarunga. Inda kuRu. inga sari. ukkaarunga. Inabel ingee ukkaaru. ingee ukkaaru. enna aaccu, Durga? ingee ukkaaru. Ok. Mithra, Nandika ingee vaa. sari paarkkaalam. enna aaccu Sridhar.</i>
Teacher	You are going to come in front of the class and do it. Okay, this team sit here. This team okay come and sit here. This team, okay, sit here. Durga sit here. Sit here. Ok. Mithra, Nandika come here. Okay, let's see what did happen Sridhar.

In contrast, in some instances the analysis showed that teachers' pronunciation was not correct, providing a model which was not true to SST. For example, in

Excerpt 14.2 the teacher used *vacciDa veeNDum* (*veeNDum* is WT) instead of *vaikkaNum* or *veikkaNum* (which are SST). Usually when a verb joins with another word like *veeNDum*, it will be pronounced as one word in the oral variety. However, in this example the teacher says *vacciDa veeNDum* which falls between SST and WT, resulting in a form which is neither/nor.

## Excerpt 14.2

ஆசிரியர்	நான் என்ன சொன்னேன், தூர்கா? அப்படியே வச்சிட வேண்டும். ஆமா.. நான் என்ன சொன்னேன். அப்படியே வச்சிட வேண்டும். எந்தெந்த மிருகங்கள் வரப்போறாங்கன்னு கண்டுபிடிச்சீங்களா? எந்தெந்த மிருகங்கள், ஆஹ்..
aaciriyar	naan enna sonneen, Durga? apDiyee <b>vacciDa veeNDdum</b> . aamaa.. naan enna sonneen. appaDiye <b>vacciDa veeNDum</b> . endenda mirugangaL varappooraangannu kaNDupiDicciingala? endenda mirugangaL.. aah,..
Teacher	What did I tell, Durga? Keep it just like that. Have you all found out what animals are going to come? Which animals? Ah...

In other cases, a teacher used oral Tamil but the words were not pronounced correctly for SST. The teacher did not articulate the last letter/sound or omitted it altogether. For example:

- *koDuppee* instead of *koDuppeen* (Excerpt 14.3)
- *pooDuvaanga* instead of *pooDuva* (Excerpt 14.4)
- *avaLavutaanaa* instead of *avLavtaa* (Excerpt 14.5)

In these cases, not only do students lack a model of proper pronunciation, they might also be unable to retrieve relevant linguistic information (e.g., the contrast between first- and second-person grammatical forms).

## Excerpt 14.3

ஆசிரியர்	இன்னும் ஆசிரியர் ஒரு நாலு நிமிடம் கொடுப்பே
aaciriyar	innum aaciriyar oru naalu nimiDam <b>koDuppee</b>
Teacher	Teacher will give you another 4 minutes

## Excerpt 14.4

ஆசிரியர்	யாரெல்லாம் தோடு போடுவா?
aaciriyar	yaarellaam tooDu <b>pooDuva</b> ?
Teacher	Who all will wear earrings?

## Excerpt 14.5

ஆசிரியர்	போதுமா? அவ்வ்வதா?
aaciriyar	poodumaa? <b>avLavtaa</b> ?
Teacher	Okay, enough? That much only?

## Use of Written Tamil and SST in Oral Language

As discussed earlier, in Tamil most words have at least two forms: a written version and a spoken version. Only a few words, such as recently introduced words, have a common form for Written and Spoken Tamil. Proficient speakers should be able to distinguish WT from oral Tamil in use. In Excerpts 14.6 and 14.7, however, we witness teachers using WT words while speaking to the students.

### Excerpt 14.6

ஆசிரியர்	இந்தக் கோபுரம் வந்து மிகவும் உயரமாகக் கட்டப்படும்
aaciriyar	Indak kooburam vandu migavum uyaramaagak kaTTappaDum
Teacher	This tomb will be built at great height

### Excerpt 14.7

ஆசிரியர்	கோவிலுடன் எப்பொழுதும் இது இணைந்திருக்கும்
aaciriyar	kooviluDan eppeRudum idu iNaindirukkum
Teacher	This tomb will be built at great height. This will always be linked with the temple

When saying *inda koopuram uyaramaaga irukkum* (WT), instead of *inda koopurom vanduu romba oyarama irukkum* (SST) (Excerpt 14.5) and *kooviluDan yeppeRdum idu iNaindirukkum* (WT), instead of *kooyilooDa yepavum idu ceendirukkum* (SST) (Excerpt 14.6), the teacher uses written forms, which are considered to be incorrect for oral usage in this context.

## Use of English

While most words have an oral and a written form, Tamils generally do not use SST forms for technology- and art-related words. Instead, they tend to use the English forms in their day-to-day conversation. However, other types of words should usually be used in their SST forms so that students can learn these words. In Excerpt 14.8, we see that the teacher uses the English words ‘hiking’ and ‘binoculars’ rather than SST forms.

## Excerpt 14.8

ஆசிரியர் <i>aaciriyar</i> Teacher	தெரியல ஆனா அத பயன்படுத்துனீங்க சரி NA <i>teriyala aanaa ada payanpaDuttuniinga. cari.</i> You don't know, but you used it. Okay.
மாணவர் <i>maaNavar</i> Student	நா <i>naa XX</i> I . . XX
ஆசிரியர் <i>aaciriyar</i> Teacher	நாலு வயசுல பயன்படுத்துன. என்ன பாக்க பயன்படுத்துன? <i>naalu vayasula payanpaDuttuna. enna paakka payanpaDuttuna?</i> Used it when you were 4 years old. What did you see using that?
மாணவர் <i>maaNavar</i> Student	என் வீடில பொருள்களேல்லா பாக்குறதுக்கு <i>en viitla poruLgaLellaa paakkuraduku</i> To view the things at my home
ஆசிரியர் <i>aaciriyar</i> Teacher	வீட் . தூரத்துல இருக்கற பொருட்கள பாக்கறதுக்கு DI. <i>veet. . doorattula irukkara poruTkLla paakkaradukku DI</i> To look at the things which are far
மாணவர் <i>maaNavar</i> Student	மாணவர் சொல்வது சரியாகக் கேட்கவில்லை <i>maaNavar solvadu sariyaaga keetkavillai</i> Could not hear the student clearly
ஆசிரியர் <i>aaciriyar</i> Teacher	Hiking போம்போது பயன்படுத்திருக்க இறுதியாக VJ <i>Hiking poomboodu payanpaDuttirukka irudiyaga VJ</i> Used it when I went for hiking lastly
மாணவர் <i>maaNavar</i> Student	நான் வந்து X போம் போது பயன்படுத்துனே <i>naan vandu X poomboodu payanpaDuttunee</i> I have used it when I went to X
மாணவர் <i>maaNavar</i> Student	மாணவர் சொல்வது சரியாகக் கேட்கவில்லை <i>maaNavar solvadu sariyaaga keeTkavillai,</i> Could not hear the student clearly.
ஆசிரியர் <i>aaciriyar</i> Teacher	Okay சரி இத வந்து பாதீங்கன்னா தூரத்துல இருக்கற ஒரு பொருளை வந்து கிட்ட பார்ப்பதற்காக நீங்க இந்த binoculars பயன்படுத்துவீங்க அதாவது தொலைவில் இருக்கும் ஒன்றைப் பார்ப்பதற்கு தொலைவுன்னா தூரம் அப்ப தொலைவில் இருக்கும் ஒன்றைப் பார்ப்பதற்காக நீங்க இத பயன்படுத்துறீங்க இல்லையா? அப்படியென்றால் தமிழில் இது என்ன?" <i>Okay cari ida vandu paattiiingannaa doorattula irukkaRa oru poruLai vandu kitta paarpaadaRkaaga niinga inda binocularssa payanpaDuttuviinga. adaavadhu tolaivil irukkum onRaip paarpaadarkaaga niinga ida payanpaDuuttuRiinga? illaiyaa appaDiyenRaal tamiRhla idu enna?</i>
Student	Aa
மாணவர் <i>maaNavar</i> Student	தொலைநோக்கி <i>Tolainookki</i> Binoculars
ஆசிரியர் <i>aaciriyar</i> Teacher	சத்தமா சொல்லு <i>sattamaa sollu</i> Tell it loudly...
மாணவர் <i>maaNavar</i> Student	தொலை-நோக்கி <i>to-lai- noo-k-ki</i> Binoculars
ஆசிரியர் <i>aaciriyar</i> Teacher	தொலை-நோக்கியா சரி பாப்போம்!" <i>to-lai- noo-k-kiyaa cari paappoom</i> 'Binoculars?' Okay... Let's see

While the use of English was kept to a minimum in the classes observed, Excerpt 14.9 illustrates a student who in the beginning used an SST word but ended up asking the teacher a question in English. Basic vocabulary, such as ‘birthday’ was in English rather than Tamil. In addition, the student used the form ‘vandu’ (underlined in the excerpt), a filler in Tamil. Thus, the excerpt not only shows a common type of student code-switching – when a student lacked basic vocabulary in Tamil – but also a lack of fluency even for a fairly common conversational topic for children.

## Excerpt 14.9

மாணவர்	எனக்கு வந்து. நான் வந்து முன்னாடி என்னோட birthday celebration மாரி எனக்கு தோணுது. என் birthday அப்ப நறிய celebrate பண்ணேன், எனக்கு பொறந்தநாளனு ஒன்ன கிடைச்சது ரொம்ப சந்தோஷமா இருக்கு.
maaNavar	enakku <u>vandu</u> , naan <u>vandu</u> munnaaDi ennooDa birthday celebration maari enaku toonudu. <b>en birthday</b> appa naRiya celebrate paNNeen. enaku porandanaaLnu onna kiDaiccadu romba sandoosamaa irukku.
Student	For me, it looks like my birthday. I celebrated during my birthday. I felt very happy on my birthday.

In Excerpt 14.10, the teacher replied with a question in English, the student then answered in English. Not shown in the excerpt, due to space constraints, is the continuing class discussion wherein the teacher used ten Tamil sentences with a mix of English words. So we see that students and teachers did code-mix with English and Tamil forms.

## Excerpt 14.10

மாணவர்	ஆசிரியர் what colour is the face?
maaNavar	aaciriyar, what colour is the face
Student:	Teacher, what colour is the face?
Teacher	Whose face?
மாணவர்	The கரடி
maaNavar	The karaDi
Student	The bear
Teacher	It will be blue, yellow that kind of a face. Blue, yellow, green, can.

Excerpt 14.11 shows more complex mixing with the use of an English word by the student, followed by the teacher using English and then a WT form.

## Excerpt 14.11

மாணவர்	என் birthday வர மாதிரி இருக்கு
maaNavar	en birthday vara maadiri irukku
Student	It seems my birthday is going to come.
ஆசிரியர்	உன்னோட birthday வர மாதிரி இருக்கா? ஆஹ்... birthday என்ன சொல்லுவாங்க?
aaciriyar	unnoDa birthday vara maadiri irukka? Ah.. birthday.. enna solluvaanga?
Teacher	Is your birthday going to come? Ah... what would you say for birthday?
வகுப்பு (மாணவர்கள்)	பிறந்த நாள்.
Vaguppu (maaNavargaL)	piranda naaL
Class (Students)	Birthday



### Other Linguistic Issues

The examples above show how Tamil was used in the lessons. However, it is clear that language use in the classroom is not only about accurate linguistic forms. Other communicative issues also surfaced including politeness and respect as reflected in the use of the different language varieties. A simple example was seen in one teacher's use of Tamil-English code-switching to introduce a classroom guest seen in Excerpt 14.12. In this case use of English seemed to be as a sort of goodwill gesture, intended to show respect for the guest by using English, the language of interethnic communication in Singapore's multilingual landscape.

#### Excerpt 14.12

<b>ஆசிரியர்</b>	இரண்டு விருந்தாளிங்க வந்திருக்காங்க. நம்ம வகுப்புக்கு. சரியா? அவங்களுக்கு வணக்கம் சொல்லணும். சரியா? வணக்கம் ஆசிரியை and good afternoon Mam. சொல்லுங்க சரியா? சொல்லுங்க
<i>aaciriyar</i>	<i>iraNDu virundaaLinga vandiiрукkaanga, namma vaguppukku. sariyaa? avangaLukku vaNakkam sollaNum. sariyaa? vaNakkam aasiriyai and good afternoon Mam. sollunga sariyaa? sollunga.</i>
<b>Teacher</b>	We have two guests here to our class, okay? We have to tell out wishes to them, okay. So tell <i>vaNakkam aasiriyai</i> and good afternoon, ma'am. Okay? Tell.
<b>மாணவர்கள்</b>	வணக்கம் ஆசிரியை. Good afternoon, ma'am.
<i>maaNavargaL</i>	<i>vaNakkam aasiriyai. Good afternoon, ma'am.</i>
Students :	Greetings, teacher. Good afternoon, ma'am.

Beyond this simple example, teachers were also sensitive to status and respect in differentiating among TL varieties. This is evident in Excerpt 14.13 when the teacher discusses the correct linguistic form for 'pig'. There is no SST version of this word – only the WT form '*panRi*' and the ST form '*panni*'. In Tamil communities a pig is not a respected animal due to religious associations. Use of the informal ST form implies disrespect. Therefore, educated Tamils use the WR form in speech. The pronunciation is crucial for distinguishing the two varieties. Thus, in this excerpt, the teacher teaches the language variety spoken by the educated.

## Excerpt 14.13

ஆசிரியர் <i>aaciriyar</i> Teacher	மரத்துல ஏறும்போது. அந்த வால அழகாக வந்து வந்து சுருட்டி வச்சுக்கும் <i>marattula eerum boodu anda vaala aRhagaaga vandu vandu suruTTi vaccukcum</i> When it climbs the tree, it will roll its tail and keep it beautifully
ஆசிரியர் <i>aaciriyar</i> Teacher	சரி அடுத்த மிருகம் <i>sari. aDutta mirugam.</i> Okay, next animal?
மாணவர்கள் <i>maaNavargaL</i> Students	பன்னி <i>Panni</i> Pig
ஆசிரியர் <i>aaciriyar</i> Teacher	பன்னி சொல்லக்கூடாது. பன்றி. பேசும்போது நாம பன்னி சொல்லலாம். ஆனா எழுதும்போது, <i>panni sollakkuuDaadu. panRi peesumboodu naama panni sollalaam. aanaa eRudumboodu,</i> We must not tell it as <i>panni</i> ; we have to tell as <i>panrRi</i> , when we write also we have to write as <i>Panri</i>
மாணவர் <i>maaNavar</i> Student	பன்றி <i>panRi</i> Pig
ஆசிரியர் <i>aaciriyar</i> Teacher	ஆஹ், பன்றி சொல்லணும் நந்திகா ஏதோ பன்றி பத்தி புதுசா என்னமோ சொல்றாங்க கேளுங்க பன்றி என்ன செய்யும்? <i>aah.. panRi sollaNum.</i> <i>Yeh.. Nandika eedoo panRi patti pudusaa ennamoo solraanga keeLlunga.</i> <i>panrri enna seiyum</i> Okay, Nandika is going to tell something new about pig. Listen, what will pig do?
மாணவர் <i>maaNavar</i> Student	மடல ரொல் பண்ணும் <i>Mudla roll paNNum</i> It will roll in the mud
ஆசிரியர் <i>aaciriyar</i> Teacher	மடல ரொல் பண்ணும் .சேற்றில வந்து. சேற்றில உருளும். ஓகே. சரி அப்பறம். <i>Mudla rooll paNNum. seRRila vandu ceerrila uruLum ok sari appuram</i> It will roll in the mud. Okay, then

In SST respect is realized through several linguistic features. Use of these features gives appropriate respect and worth to the person who speaks the language and to the person who is listening. For example, when speaking to elders *nga* is added to the end of the verbs. This can be seen in the form *sollunga* in Excerpt 14.14.

### Classroom Interaction

As noted in Table 14.2, student output was limited, especially as compared with teachers. In addition, students used Colloquial Tamil as well as SST, WT and English in their oral productions. A closer look at the classroom transcripts shows that even when students spoke, they used mostly incomplete sentences. In Excerpt 14.14, for example, students often used a word, a phrase or at most one sentence to express their thoughts. Few students used more than ten words continuously, and even then, not all words were in Tamil.

## Excerpt 14.14

Student	Can I switch off the light?
ஆசிரியர்	Light எதுக்கு. நான் இல்ல நிக்கிற .ன். Lightஅ ஏன் off பண்ணுறே. நாந்தா நிக்கிறெனெ. அதா அவெ. .ன் சொல்லிகிட்டே இருக்கா. .ன் அவெ. . சொல்லுறத நீ கேக்க மாட்டே. நீதா. .ன் அவென் காதுல குசுகுசங்கறே. ஓகே. சரி நாம வந்து விளையாட்டுகளை பத்திப் பேசறோம். உங்களுக்கு ரொம்ப படிச்ச விளையாட்டு எது.
aaciriyar	Light edukku? naan illa nikkira. . n. light a een off paNNuRa. naandaa nikkirrene. adaa ave . .n sollikiTTee irukka. .n. ave . . sollurada nee keekka maatree. niidaa. . n aven kaadula kukucunguRee. Ok. cari. naama vandu iLaiyaaTTugaLa patti peecuroom. ungaLukku romba puDicca viLaiyaaTTu edu?
Teacher	Light? Why? I am standing here, right? Okay, don't talk with your neighbour. Okay, we were talking about sports. What sport do you like the most?
மாணவர்கள்	Soccer, badminton, பூப்பந்து
maaNavargal	Soccer, badminton, puuppandu
Students	Soccer, badminton, badminton.
ஆசிரியர்	பூப்பந்துனா என்ன?
aaciriyar	puuppandunaa enna?
Teacher	What is meant by 'puupandu'?
Student	Badminton
ஆசிரியர்	யே... அதுக்குப் பூப்பந்துன்னு பேரு(பிள்ளைகள் ஒன்றாகக் கூச்சலிட்டுப்பதிலளிக்கும் சத்தம்)ரூபன் சொல்லுங்க.
aaciriyar	Yee. . . adukku puuppandunnu peeru (piLLaigal onRaaga kooccaliTTuppaDilaLikkum sattam) Rubin sollunga.
Teacher	Yah. That is called as badminton. Rubin you tell.
மாணவர்	Shuttlecock வந்து பூமாதிரி இருக்கொ. . ப்
maaNavar	Shuttlecock vandu puumaadiri irukko. . .p
Teacher	Does the shuttlecock look like flower?
ஆசிரியர்	Shuttle Cock வந்து பூமாதிரி இருக்கறதால அதுக்கு பூப்பந்துன்னு பேரு. சரி அப்ப Soccer என்ன சொல்லுவொ. . .ம்
aaciriyar	Shuttle cock vandu puumaadiri irukkaradaala adukku puupandunnu peeru. sari appa Soccer enna solluvo. .m
Teacher	As shuttlecock looks like flower, we call it as 'puupandhu' (Badminton). Okay, what do we call soccer?
மாணவர்	காற்பந்து
maaNavar	"kaarpandu"
Student	Football
ஆசிரியர்	சரி ஏ... ன் அதுக்கு காற்பந்துன்னு பேரு. (children were shouting the answers together). எது கத்தும்?
aaciriyar	sari ee. . n adukku kaarpandunnu peeru (children were shouting the answers together) edu kattum?
Teacher	It is called as football. Which will shout?
மாணவர்	கழுதை
maaNavar	"kaRudai"
Student	Donkey!
ஆசிரியர்	எத்தனை கழுதைகள். ஏ... ன் அதுக்கு காற்பந்துன்னு பேரு?
aaciriyar	ettanai kaRudaigal. . ee. .n adukku kaarpandunnu peeru?
Teacher	How many donkeys? Why it is named as football?
மாணவர்	ஏன்னா கால பூஸ் பண்ணிறனால
maaNavar	eennaa kaala use paNNiRanaala
Student	Because we use our legs.
ஆசிரியர்	காலால் ஒதைக்கறனால அதுக்கு காற்பந்துன்னு பேரு வந்துச்சு.
aaciriyar	kaalaal odaikkaranaala adukku kaarpandunnu peeru vanduccu. sari yaarukku bommai viLaiyaaDappiDikkum?.
Teacher	Yes, because we use our legs to play, we call it as 'football'. Who like to play with dolls?
Student	Yee... (children gave negative cues about playing with dolls, teacher laughs)
ஆசிரியர்	நீ இல்லனா நீ விட்டு மத்தவன சொல்லக்கூடாது. அது கெட்ட பழக்கம். சரி யாருக்கு பொம்மை விளையாடப்பிடிக்காது
aaciriyar	nee illanaa nee viTTu mattavana sollakuDaadhu. adu ketta paRakkam. sari yaarukku bommai viLaiyaaDapiDikkadu.
Teacher	If you don't keep quiet, don't tell others. Okay, who don't like to play with dolls?

## Implications

Standard Spoken Tamil refers to the educated, oral language variety students are expected to learn in Singaporean schools. When the teacher employs SST, the students can learn the standard pronunciation, word choice and other relevant linguistic and social features. The excerpts above show examples of teachers engaged in the type of modelling that is needed. However, there were also instances when teachers missed opportunities to teach new vocabulary (Excerpt 14.1) and opted for code-switching instead. To facilitate discussion among mixed ability students in TL classes, the teacher must adjust the teaching style and pitch the language level to student needs. Indeed, some teachers indicated they used English to help them negotiate these differences in language proficiency. For example, during an interview a senior teacher related that in her class, there are children born in interracial marriages who use English at home, and, “In order for them to understand and be contented, I explain to them in English. Whenever they do not understand what I say, a few of them tell me that they do not understand. But, many do not. So, I talk in English to them, too” (Lakshmi 2011).

One option in these cases would be for the teacher to speak in Tamil first, then translate to English, and then model in Tamil again – the so-called ‘sandwich method’ (Butzkamm and Caldwell 2009; Dodson 1972; see also Goh and Lim, this volume). Alternatively a teacher could extend the conversation, giving more input in SST and context for understanding the new words. In general, if the teacher speaks in Tamil, it may encourage students to use Tamil more frequently.

Teachers also need to adjust their speech to assist students in their comprehension of TL. As above, teachers sometimes code-switch for this reason. However, teachers can also use other tactics to help students. For example, in Excerpt 14.15, the teacher speaks primarily in Tamil with a few instances in English. When she repeated the students’ answers, she also brought students to the next level by asking questions, which encouraged discussion and embedded vocabulary meaningfully in the discussion.

## Excerpt 14.15

ஆசிரியர்	ஒரு காயம் ஏற்படலனு நினைக்கிறீங்களா? புகழ்? இங்க ரத்தம் வருமா? உனக்கு குறிப்பா தெரியுமா? இங்கதான், கை முட்டிலதான் வருமா? பாப்போம். என்ன நடக்கதுன்னு?
aaciriyar	oru kaayam eeRpaDalannu ninaikkiriingalaa? PugaR? Inga rattam varumaa? unakku kurippaa teriyumaa? Ingadaan,kai muTTiladaan varumaa? paappoom. enna naDakkadunnu?
Teacher	Are you thinking that it was not hurt? Pugazh? Will it bleed here? Do you know it? Here only at elbow, will it bleed? Let's see, what is happening?
மாணவர் maaNavar	We learnt செங்கல் We learnt sengal
Student:	We learnt brick
ஆசிரியர்	யுவராஜன் சொன்ன மாதிரி நாம படிச்ச சொல் வந்து செங்கல். மறுபடியும் சொல்லுங்க.
aaciriyar	Yuvarajan sonna maadiri naama paDicca sol vandu sengkal. maRubaDiyum sollunga.
Teacher	As said by Yuvarajan, the word we learnt was 'brick'.
மாணவர்	செங்கல் . . ok. அது அவர் நெற்றியில் பட்டது. அவர் நெற்றியில் காயம் ஏற்பட்டது. சரி, என்ன ஆச்சு அவருக்கு?
maaNavar	sengkal. . . ok. adu avar neRRiyil paTTadu. avar neRRiyil kaayam eerpaTTadu. sari enna aaccu avarukku?.
Student:	Brick. Okay... It hit the forehead. His forehead got hurt. Okay, what happened to him?
ஆசிரியர்	இந்த வகுப்பு ரொம்ப வித்தியாசமான வகுப்பு. காயம் ஏற்பட்டு இருக்கு. நீங்க சிரிக்கிறீங்க.
aaciriyar	inda vaguappu romba vittiyasamaana vaguppu. kaayam eerpaTTu irukku. niinga sirikkiRiinga.
Teacher	This class is very different class. He has been hurt and you are all laughing...
ஆசிரியர்	திரு கார்த்திக்க பாக்க உங்களுக்கு சிரிப்பா இருக்கா? இதோ பாத்திங்களா, அவர்க்கு நெற்றி வீங்கிப்போச்சு. அதனால் அவர் மருத்துவருக்கு போனார். மருத்துவர் வந்து, அவர் தலைல பெரிய கட்டு போட்டார், சரியா, அப்புறம் அவர் வீட்டுக்குப் போன உடனே என்ன செஞ்சார், தெரியுமா? என்ன செஞ்சிருப்பார். . . ஆமாம் . . நீங்க படிச்ச சொல் வந்து நெற்றி. சொல்லுங்க
aaciriyar	tiru Karticka paakkaa ungaLukku sirippaa irukkaa? Ido paattingaLaa avarukku neRRi viingipooccu. adanaala avar maruttuvarukku poonaaru. maruttuvar vandu avar talaila periya kaTTu pooTTaaru. sariyaa, appuram avar viTTukkup poona uDane enna senjaaru. teriyuma? enna senjiruppaaru. . . amaam. . niinga paDicca sol vandu neRRi, sollunga
Teacher	Thiru Karthik has been hit by a brick. His forehead is swollen. So, he is going to the hospital. The doctor has put a big bandage on his forehead. So, what word have you all learnt? Yes. Forehead.
மாணவர்கள் maaNavargaL	நெற்றி neRRi
Students	Forehead
ஆசிரியர்	உங்க நெற்றி எங்க இருக்கு காட்டுங்க எல்லாரும்
aaciriyar	unga neRRi enga irukku kaaTTunnga ellaarum
Teacher	All of you show where is your forehead?
Student	Forehead, forehead
Teacher	Very good, very good
ஆசிரியர்	So அவரு என்ன செஞ்சார்?
aaciriyar	So avaru enna senjaar?
Teacher	So, what did he do?
மாணவர்: maaNavar	அழுதார் aRudaaru
Student	He cried.
ஆசிரியர்	அழுதார். ஆமாம். அவர் கடைசில வீட்டுக்குப் போக ஒரே அழுக அவருக்கு. ஏன் அழுதார்?
aaciriyar:	aRudaaru. aamaam. avar kaDaicila viTTukkup pooga ore aRuga avarukku. een aRudaaru?
Teacher:	Yes, when he went home, he was crying. Why did he cry?
மாணவர் maaNavar	வலில அழுதார் valila aRuraaru
Student:	Because of pain

The final example, Excerpt 14.16, brings together some of the main features discussed above. First, the student utterances tend to be short, but it is also evident that the teacher encourages the students to comment and to give their own thoughts and ideas. In this way, she is able to bring them into the discussion and make use of their TL skills. The teacher models correct use of SST with proper pronunciation, encouraging the students to use proper pronunciation as well.

#### Excerpt 14.16

மாணவர்கள் <i>maaNavargaL</i> Students	மஞ்சள்..பச்சை, பச்சை சிகப்பு <i>manjal, paccai, paccai, sigappu</i> Yellow, green, green, red
ஆசிரியர் <i>aaciriyar</i> Teacher	சிகப்பு நிறமா? சரி சொல்லு. இரண்டாவது மிருகம். . நரி <i>sigappu niRamaa? sari sollu. iranDaavadu mirugam. nari</i> Red colour? Okay, tell me. Second animal... Fox
மாணவர் <i>maaNavar</i> Student	நரி வந்து ஒரு மிருகம். அத வீடில் வளக்க முடியாது. <i>nari, vandu oru mirugam. ada viiTla vaLakka muDiyaaDu</i> Fox is an animal; we cannot keep it at home.
ஆசிரியர் <i>aaciriyar</i> Teacher	ஏன் அத வீடில் வளக்க முடியாது? நரியும் அழகாதானே இருக்கு? <i>een ada viiTla vaLakka muDiyaaDu? nariyum aRagadaanee irukku?</i> Why can't we keep it at home? Fox is also beautiful, right?
மாணவர் <i>maaNavar</i> Student	நரி அழகா இல்லை <i>nari aRagaa illee</i> Fox is not beautiful!
ஆசிரியர் <i>aaciriyar</i> Teacher	அழகா இல்லையா? <i>aRagaa illaiyaa?</i> Not beautiful?
மாணவர் <i>maaNavar</i> Student	ஆனா நரி அழகாவே இருக்கு ஆனா அழகா இல்ல. என்னா நரி வந்து கருப்பு நிறத்துல இருக்கு. எனக்கு கருப்பு நிறம் புடிக்காது. <i>aanaa nari aRhakaavee irukku aanaa aRhaaga illa. eennaa nari vandu karuppu niRattula irukku. enakku karuppu niRam puDikkaadu.</i> But, fox is beautiful, but not beautiful, because fox is black in colour. I don't like black colour.
ஆசிரியர் <i>aaciriyar</i> Teacher	கருப்பு நிறத்துல இரக்கறதால உனக்கு பிடிக்காதா? சரி முக்கியமா ஏன் நரிய வீடில் வளக்க முடியாது <i>karuppu niRattula irukkaadaala unakku piDikkaadaa? cari mukkiyamaa een nariya viiTla vaLakka muDiyaaDu.</i> You don't like it because it is black in colour? Okay, most importantly, why can't we keep fox at home?
மாணவர் <i>maaNavar</i> Student	கடிக்கும். அதுக்கு வந்து ரொம்ப கூரான பல்லு <i>kaDikkum adukku vandu romba kuurraana pallu.</i> It will bite. It has very sharp teeth
ஆசிரியர் <i>aaciriyar</i> Teacher	கூரான பல்லு, சரி <i>kuurraana pallu. cari.</i> Sharp teeth, okay.
மாணவர் <i>maaNavar</i> Student	ரொம்ப பயமா இருக்கும் <i>romba payamaa irukkum</i> Will be very fearful
Teacher	Aahaa...

Another alternative, though rarely seen in these data, is to give group activities to encourage more interaction in Tamil. Interaction between students can create a cooperative learning environment in which students can feel safe and be encouraged to develop their language proficiency. Most importantly, the classroom must pro-

vide an environment for students to use the language and acquire the proper variety for formal, spoken speech.

Finally, SST education involves not just the mechanics of language usage but also communicative skills such as showing proper respect to the other person during the conversation. In the context of this discussion, a key example would be the need for students to know how to use SST in ways that demonstrate respect when conversing with their teachers and elders.

## Conclusion

Based on Schiffman's definition of SST (personal communication 2012) and Annamalai's (personal communication 2012) description of SST forms, this chapter has analysed classroom data for evidence of using and teaching the SST variety. Although use of SST was evident in the data, there is also a suggestion that the amount of SST can be increased with support, encouragement and acknowledgement from the teachers to their students.

A few limitations should be noted. First, given the finding by Saravanan et al. (2009) that the teacher's age influences teacher's use and perception of SST, it would be worthwhile to investigate classroom data from the perspective of teacher's age and experience. Second, it might be worthwhile to include attitudinal data from teachers and students to better understand how SST is viewed in the community and in the classroom. Despite these limitations, the classroom use data show that if teachers willingly encourage students to speak SST in classrooms, this helps to make way for students to continue Tamil use in their community and to learn Tamil culture as it links to language. In Singapore, Tamil as a mother tongue is important for preserving the community and fostering cultural values.

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## References

- Aman, N., Vaish, V., & Bokhorst-Heng, W. (2006). The sociolinguistic survey of Singapore 2006 (Tech. Rep. No. CRP 22/04 & CRP 23/04 AL). Singapore: Centre for Research in Pedagogy and Practice, National Institute of Education.
- Butzkamm, W., & Caldwell, J. A. W. (2009). *The bilingual reform: A paradigm shift in foreign language teaching*. Tübingen: Narr Verlag.

- Singapore Department of Statistics. Ministry of Trade and Industry. (2010). *Census of population 2010. Statistical Release 1. Key indicators of the resident population*. Retrieved from [http://www.singstat.gov.sg/publications/publications\\_and\\_papers/cop2010/census\\_2010\\_release1/indicators.pdf](http://www.singstat.gov.sg/publications/publications_and_papers/cop2010/census_2010_release1/indicators.pdf)
- Dodson, C. J. (1972). *Language teaching and the bilingual method* (2nd ed.). London: Pitman.
- Kalaimani, R. (1997). *Linguistic difficulties faced by secondary four express stream pupils in their oral communication in Tamil*. Unpublished M. Ed. thesis, National Institute of Education, Nanyang Technological University, Singapore.
- Lakshmi, S. & Saravanan, V. (2005). *The pedagogical significance of Standard Spoken Tamil (SST) in the school domain in Singapore*. Paper presented at the Redesigning Pedagogy Conference 2005, Singapore: National Institute of Education.
- Lakshmi, S. (2011). Use of English in early primary Tamil classes. In Editorial Committee (Ed.), *9th world Tamil teachers' conference* (pp. 169–187). Singapore: Singapore Tamil Teachers' Union.
- Lakshmi, S. (2014). *Coding manual on transliterating and analyzing varieties of Tamil language in early primary classes*. Singapore: Office of Educational Research, National Institute of Education, Singapore. Retrieved from <http://hdl.handle.net/10497/15232>
- Mani, A. (1979). Learning Tamil as a second language in Singapore: The background of students. In P. N. Selvan (Ed.), *Proceedings of seminar conference on Tamil language and Tamil literature in Singapore* (Vol. 2, pp. 93–105). Singapore: NUS Tamil Language Society.
- Mani, A., & Gopinathan, S. (1983). Changes in Tamil language acquisition and usage in Singapore: A case of subtractive bilingualism. *Southeast Asian Journal of Social Science*, 11(1), 104–117. doi:10.1163/080382483x00059.
- MOE. (2005). *Tamil language curriculum and pedagogy review committee report*. Singapore: Author.
- MOE. (2008). *Tamil language syllabus, Primary*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/>
- Ramiah, K. (1991). The pattern of Tamil language use among primary school Tamil pupils in Singapore. *Singapore Journal of Education*, 11(2), 45–53. doi:10.1080/02188799108547671.
- Saravanan, V. (1999). Bilingual Chinese, Malay and Tamil children's language choices in a multi-lingual society. *Early Child Development and Care*, 152(1), 43–53. doi:10.1080/0300443991520104.
- Saravanan, V. (2001). The significance of bilingual Chinese, Malay, and Tamil children's English network patterns on community language use patterns. *Early Child Development and Care*, 166, 81–91.
- Saravanan, V., Lakshmi, S., & Caleon, I. (2009). The debate over literary Tamil versus standard spoken Tamil: What do teachers say? *Journal of Language, Identity, and Education*, 8, 221–235. doi:10.1080/15348450903130389.
- Schiffman, H. F. (2007). *A reference grammar of Spoken Tamil*. New York: Cambridge University Press.
- Schiffman, H. F. (2003). Tongue-tied in Singapore: A language policy for Tamil? *Journal of Language, Identity and Education*, 2(2), 105–125. doi:10.1207/s15327701jlie0202\_2.
- Sobrielo, A. (1985). *Language maintenance and shift among Tamils in Singapore*. Unpublished M.A. thesis, National University of Singapore, Singapore.



# Chapter 15

## Inculcation of Malay Values and Culture in Language Pedagogy in Singapore

Roksana Bibi Binte Abdullah

### Introduction

Language and culture are said to complement each other and indeed be inseparable (e.g., Abbaspour et al. 2012; Kramersch 1993). For Malays, the moral values and cultural system cannot be separated from the language as it is believed that the Malay language itself is a reflection of community values. For this reason, the Malay community in Singapore is concerned that ‘foreign cultures’ may engulf the younger generation with the increasing dominance of the English language in Singapore (Abdullah 1996; Chua and Kuo 1995).

In Singapore, efforts to sustain ethnic group languages and cultures (Chinese, Malay and Tamil) are done by various agencies, official and unofficial, including non-governmental organisations and government bodies. Various funds have been provided for this purpose. For example, the Malay Language and Literature Promotion Committee (MLLPC) funds a variety of projects that seek to promote and to sustain Malay language and culture (Abdullah 2008; Tajudin 2004). Some of the projects funded by MLLPC include the Arif Budiman Teachers’ Award, co-organised annually by Malay Language Council and Singapore Teachers’ Union; others include Pesta Pantun 2013 – a poetry competition by Malay Society, National University of Singapore, and the Youth Cultural Seminar organised by Raffles Institution in 2013 and funded by MLLPC.

In addition to the efforts of these organisations, one of the most sustained efforts in inculcating language and culture among the younger generation is through the Singapore education system. This was clearly spelt out by the Minister of Education Heng Swee Keat (2011):

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In nation building, our education system played a critical role in forging a more cohesive and united society. During the colonial era, people went to schools to be educated in their vernacular language. The language of instruction affected their attitudes and loyalties because each language of instruction was a pathway to a different world of thought and culture (para 13).... In particular, it was the teachers and school leaders who made a difference. They shaped the values and character of our people. Their care and concern touched many lives....(para 18)

The role that language education plays in inculcating language and culture is the focus of this chapter.

## Malay Moral Values, Culture and Language Education

The centrality of the Malay language for cultural transmission is evident in governmental policy statements. For example:

Malay is our national language and an important regional language. The learning of Malay is critical for cultural transmission in the Malay community. A sense of identity and the ability to access readily the values, history, literature and the arts of one's own community are inextricably linked with a facility with one's own language. The Malay language joins generations. Keeping the language alive is also essential to Singapore's multiracial identity. (MOE 2005, p. 1)

Inculcation of cultural aspects and values is also evident in the Malay language syllabus. These are clearly spelt out as part of the Arif Budiman vision, a reference to a "learned person who contributes to society or the goal of becoming a righteous and knowledgeable person" (see discussion below). In addition, as we will see later in this chapter, a desired balance between language skills and appreciation of values and culture is evident in school textbooks. For example, in the Primary 1 (P1) textbook *Mekar 1B* (Curriculum Planning & Development Division [CPDD], MOE 2008b, p. 38), the value of helping each other was brought up through a discussion of helping at home, an activity intended for oral skill development.

Since awareness and appreciation of Malay culture, traditions and values are infused in the instructional materials for ML, one question is, 'Which moral values and cultural elements are evident as part of ML instruction?' It is also useful to consider how moral values and culture are represented as part of a language curriculum and to what extent classroom lessons are successful in addressing aspects of cultural values for a contemporary Malay community within Singapore's multicultural context.

Even though the link between language and culture is specifically mentioned in policy, there is little documentation on how this plays out in the classroom and to what extent teachers successfully transmit cultural values through ML teaching. The Malay Language Curriculum and Pedagogy Review Committee (MLCPRC) (MOE 2005) states:

the current level of cultural content was found by teachers, parents and students to be adequate. However, a recent major study of classroom practices found that a number of teachers

did not adequately address cultural content in class. What is needed is a different degree of engagement with this content. More open-ended and higher-order thinking classroom activities are needed for students to explore, examine and own elements of their culture. (p. 21)

## Malay Language Syllabus in Primary Schools in Singapore

The Malay language syllabus has undergone many changes and revisions including attempts to identify priority areas for the improvement in ML teaching and learning based on a perception of declining standards in spoken Malay and a large-scale review carried out in 2005 (MOE 2005). Changes were addressed in the 2008 syllabus which focuses on:

- Building language skills and cultural depth
- Greater emphasis on fluency in oral communication and reading to reinforce students' understanding of Malay language and culture
- Building on the students' love of the Malay language
- Effective teaching of Malay language, with different learning pedagogies to suit students who have different background knowledge and abilities

In addition, the central vision of the review was to inculcate the values of *Arif Budiman* – a concept coined by the 2005 Review Committee to focus on the idea of a “learned person who contributes to society” and a standard which every learner of ML should try to reach. Values and culture in education are intended to produce students who are gracious, in line with the vision of Arif Budiman. Also in line with this vision, the syllabus is intended to be holistic, not only focusing on linguistics knowledge but culture and value as well.

Finally, Malay education consists not only of the values and culture of the Malay community but also the nation, including National Education, as discussed below, and the Desired Outcomes for Education (Ministry of Education [MOE] n.d.). Balancing community and national values is expected to help students understand and appreciate the values and culture of the Malay community and also to recognise other cultures in the context of Singapore's multiracial society. Understanding and awareness of both targets is to be implemented in a planned manner (MOE 2007).

Thus, instruction in moral values should be implemented at all levels to meet the vision of language education which builds both linguistic proficiency and cultural appreciation. Sixteen selected moral, or ‘core’, values are given in the syllabus (Table 15.1). These values are to be integrated and scaffolded based on students' learning level. For example, if the teacher teaches the value of courtesy, at the end of the Primary 2 (P2) level, students need to know what is meant by ‘being polite’ and know how to practice this in their daily lives. In terms of language, it is necessary for students to use polite language when speaking with friends, parents and family. At the P4 level, the same value should be incorporated in the larger domain of the community, for example, students are to practice courtesy when corresponding

**Table 15.1** Core values in Malay language teaching

1	To be trustworthy/honest	9	To love
2	To be good hearted	10	To be just
3	To be independent	11	To work hard/to persevere
4	To be courteous/to be gracious	12	To be patient
5	To be willing to accept/to value things properly (e.g., ideas, views, gifts)	13	To be willing to explore/to try new things
6	To be well socialised	14	To be loyal
7	To show respect	15	To help one another/to cooperate
8	To be thrifty	16	To be responsible

MOE (2007, p. 15)

with their neighbours. At the P6 level, the value of being courteous should be incorporated in a broader domain including the wider community of other races or foreigners.

Besides the 16 values listed in Table 15.1, the ML syllabus also highlights ‘messages’ from the National Education syllabus. These messages are to be imparted to the students by emphasising what they should believe and by specifying the related value outcomes. Though the National Education syllabus is a separate part of the primary school curriculum, it is linked to ML teaching. For example, Table 15.2 shows the six main messages which link National Education and ML instruction with specific value outcomes. This vision works in tandem with the ML education’s mission and learning objectives.

In summary, the values and cultural elements which policymakers believe should be inculcated in learners are incorporated into the Malay language syllabus, textbooks and workbooks prepared by the ML CPDD of the Singapore MOE. This chapter describes an investigation of classroom instruction as observed in lower primary ML lessons and textbook and curricular document analysis in an endeavour to uncover which moral values and cultural elements are evident as part of ML instruction. The examination focuses on Primary 1 and 2 (P1 and P2) as the formative years of education. As the 2009 review of the Singapore primary education system concluded, “Singapore needs citizens who are morally upright, have a strong sense of civic responsibility and who will contribute actively to society. These skills and dispositions should be inculcated in the formative years of primary education” (MOE 2009, p. 26).

## Methodology

The investigation was undertaken for the lower primary years, P1 and P2, to examine school-based language instruction and the inculcation of moral values and culture. The investigation was comprised of two main components: a document study

which covered the 2008 ML syllabus and course materials (the required textbooks and workbooks) and lesson observations undertaken in 2009 (Abdullah 2010, 2011), after the new syllabus and textbooks were introduced.

## *Document Study*

For the document study, the required textbooks, *Mekar1A, 1B, 2A and 2B* and their affiliated workbooks, were analysed to unearth embodied elements of Malay moral values and culture. More specifically, the document study made use of content analysis which can be broadly defined as “the systematic, objective, quantitative analysis of message characteristics” (Neuendorf 2002, p. 1). This included close examination of the entire textbook and workbook contents for years 1 and 2 for explicit and implicit references to the values listed in Tables 15.1 and 15.2. Course materials were scrutinised page by page and annotated for these core values.

An initial analysis of the course materials showed that, beyond broad statements of values (as reproduced in the tables), there was no specific nor explicit elaboration on what Malay culture is nor were there recommendations for culture-related components that should be emphasised in Malay language lessons. Therefore, in examining the data, I also brought to bear my own ‘insider perspective’ as a Muslim woman who grew up speaking Malay in a Malay-speaking family and Malay-speaking ‘village’ in Singapore and as a Malay language teacher and teacher-trainer with more than 20 years of experience. Although the school syllabus is secular and explicitly not oriented towards any specific religion or religious practice, I found that my experiences as a practicing Muslim were also helpful in identifying some implicit elements of Malay culture that were related to religious values and traditions. As will be seen in the presentation of findings, even though religion and

**Table 15.2** Messages for national education

1	Singapore is our homeland; this is where we are <i>We want to preserve our heritage and our way of life</i>
2	We must preserve racial and religious harmony <i>Although we are of different races, religions, languages and cultures, we have the same destiny</i>
3	We must uphold meritocracy and honesty <i>This means opportunities for all, according to their ability and effort</i>
4	No one is responsible for Singapore <i>We must find our own way to survive and achieve prosperity</i>
5	We ourselves must defend Singapore <i>No one is responsible for the safety and well-being of us</i>
6	We have confidence in our future <i>With unity, determination and readiness, we will build a brighter future for ourselves</i>

MOE (2007, p. 15)

culture are two distinct concepts, in the Singapore context, many of the values and cultural practices deemed to be ‘Malay’ are also basic teachings of Islam.

Thus, the analysis relied on content analysis of the documents as well as my own insider interpretation of elements which represent Malay culture and moral values. These included, for example, clothing, costumes, food, games, activities and mannerisms which are both explicitly and implicitly introduced via text and images.<sup>1</sup>

These elements were analysed through an iterative cycle of first identifying a visible component related to Malay culture based on my experience, for example, traditional Malay clothing. The elements were then considered in light of any explicit statement of attached value, i.e., a personal or community value attributed to the object, implicit statements of attached value or lack of reference to the component (cf. Saldaña 2009, pp. 89–90).

For example, in *Mekar 2B* (MOE 2008c, p. 54), there is a picture of a family with the grandparents seated on a sofa and a young boy kissing the grandfather’s hand. It was not mentioned explicitly as an act of showing respect and love towards our elders, but implicitly, the picture portrays how the boy bent his knees to the floor rather than being seated on the same sofa while kissing his grandfather’s hand. As a Malay woman, I can recognise the gesture within the context of family and identify that this is intended to show a culturally specific form of respect and courtesy. Another example can be found on page 43 in which a little girl seated on the floor plays ‘congkak’, a traditional Malay game. Though there is no reference to the image in the text, I can recognise it as a cultural artefact due to my ‘insider’ perspective.

After the textbooks were annotated based on explicit or implicit evidence of Malay values and culture, the second stage of the data analysis was to review annotations in order to identify any features missed and also to remove annotations that might be questionable. The final annotations yielded information on which values and cultural features were brought out in the textbooks, with some information on how frequently they were brought out and which were not. Even though frequency does not necessarily equate with ‘significance’, it does suggest some prioritisation. For example, the textbooks never explicitly teach students how to create ‘pantun’, but the textbooks used them persistently for skill development and the teaching of values and culture. This will be evident in the discussion of findings, below.

However, frequency in and of itself was not the focus of this analysis. At issue was (a) *what* was presented and (b) *how* it was presented. Of particular interest was whether these topics were addressed explicitly or implicitly, if at all, and whether teachers referred only to linguistic aspects (e.g., vocabulary) or whether they noted cultural links. Another possibility was whether teachers tried to draw on students’ experiences or ideas if/when discussion of values and cultural elements occurred, in order to engage students more fully in the lessons. With this in mind, the third stage

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<sup>1</sup>This is likely to bring to mind Edward T. Hall’s well-known ‘Iceberg Model’ (1976) in which culture can be perceived as an iceberg – the external or visible/material aspects of culture on top of the waterline and the non-material/values or the internal subconscious part or the culture below the waterline.

of analysis was to re-examine the annotations to see how the core values and other cultural features were presented within the context of the course materials and in the lesson themselves. This led to examination of lesson observations.

### ***Classroom Observation Analysis***

Classroom observations were undertaken to better understand how culture-related messages in the syllabus and textbooks were incorporated in lesson delivery. Lesson observation data were drawn from 16 Malay language lessons, involving eight schools at the P1 and P2 level: two lessons at each school (eight lessons at P1, eight lessons at P2). All lessons were observed in the same term, the second half of 2009, after the new syllabus had been implemented and the new accompanying textbooks were in use. Lessons observed were audio and video recorded and then coded with a predetermined coding scheme which attempted to describe language lessons in Singapore primary schools in light of new policy initiatives (Silver et al. 2011; Silver et al. this volume). While the existing coding scheme captured classroom basics such as types of activities, classroom participation patterns and materials used (see Silver et al. 2010 for details), it did not capture the type of cultural components of interest for understanding how moral values and culture were represented in Malay language lessons. Therefore, lesson transcripts were coded for the core values, as shown in Tables 15.1 and 15.2, to determine how these values and cultural elements were presented within the context of language lessons, as discussed above. Lesson videos were also viewed and reviewed for the same purpose. Finally, I identified other cultural elements which might be relevant though not listed in the core values, again using my ‘insider’ community knowledge. Noting the subjectivity and implicitness of this final part of the analysis, throughout this chapter, I refer to ‘values’ as those values explicitly mentioned in the syllabus for ML or NE; ‘cultural elements’ refer to other elements of Malay culture that I identified through my analysis as an insider but which are not explicitly listed as values to inculcate in policy documents.

Together, the document study and classroom observation analysis give some idea of how culture and moral values are integrated with Malay language instruction and how these elements are prioritised through frequency of presentation and/or explicit mention by the teacher during lessons.

### **Values and Culture Elements in Textbooks and Malay Language Classroom**

The findings for the components of culture and values are discussed below. First, the components depicting moral values as they occurred in the course materials with some quotations and brief explanation are given. Then, additional culture elements

that appeared in the textbooks and workbooks are discussed. After the content of the course materials is presented, the findings from the classroom observation are discussed.

### ***Values Presented in Textbooks***

To answer the question of *what* core values were presented, the document study revealed that 8 out of the 16 core values (see Table 15.1) were evident in the textbooks for P1 and P2. These were:

Be good hearted	Be courteous/be gracious
Show respect	Be thrifty
Love	Work hard/persevere
Help one another/cooperate	Be responsible

Other core values were not found in the textbooks:

Be trustworthy	Be independent
Be willing to accept/value things	Be well socialised
Be just	Be patient
Be willing to explore	Be loyal

Examples of *how* the core values were represented in the course materials are given below. In addition to the eight core values from the syllabus, an additional value that was in evidence was hygiene. This is also discussed, below.

#### **Be Good Hearted**

In *Mekar 1B*, (CPDD 2008b, p. 37), there is the story about Syahirah who helps her grandmother prepare fruit salad for a charity sale. The money collected from the sale will be donated to the Mesra Old Folks Home. From the story, it is clear that practicing beneficence, loving and helping the poor are acts of a good-hearted person and are valued, even though this value is not explicitly stated in the story.

#### **Be Courteous/Be Gracious**

Part of being courteous in Malay culture is the use of appropriate address terms which certify the status of an interlocutor's rank or age. For example, family members have different address terms according to seniority: *adik* (younger sibling), *kakak* (elder sister) and *abang* (older brother). Other types of address terms can be used to be courteous to people who are not family members. By way of illustration,



adults who are not family members are called *makcik* (auntie) and *pakcik* (uncle). These terms are used but explicitly taught in *Mekar 1A* (p. 48) and *Mekar 1B* (p. 25), respectively.

### Show Respect

Showing respect is linked to courtesy, as above, but being respectful is also taught as a broader value. For example, *Mekar 1A* (CPDD 2008a, p. 27) has this poem for the student to recite<sup>2</sup>:

Kuning, merah, hijau dan biru Kita harus hormat guru.	Yellow, red, green and blue We have to respect teachers.
Jingga, ungu, kelabu dan coklat Nasihat guru harus diingat.	Orange, purple, grey and brown Teachers' advice should be kept in mind.

### Be Thrifty

The practice of saving and having a thrifty nature is another moral value to be inculcated through the teaching of the Malay language. By way of example, these values are imparted through the following poem (CPDD 2008b, pp. 75–76):

<u>Pantun Duit Belanja</u>	<u>Spending Money Poem</u>
Duit diberikan untuk belanja Ada baki ditabung semua Jika berbelanja berpada-pada Yang mahal yang murah harus dikira.	Money is given to spend Any remainder is to be saved Money should be spent wisely The cost should be considered.
Duit diberikan untuk berbelanja Ada baki ditabung semua. Gunalah tabung menyimpan duit Sedikit-sedikit lama-lama jadi bukit.	Money is given to spend Any remainder is to be saved Use the coin bank to save the money A little at a time will end up becoming a hill.
Duit diberikan untuk berbelanja Ada baki ditabung semua Jimat cermat ketika berbelanja Amalan baik ikutan semua.	Money is given to spend Any remainder is to be saved Be thrifty when spending A good practice is for everyone to follow.

<sup>2</sup>Line by line translation was done to the extent possible. For two-line poems (*pantun*), the first line is not the actual message, but might be included for rhyming purposes, having implicit connection.

A proposed extension activity is to make a child's coin bank in the shape of a car from a tissue box.

## Love

Practices of affection specifically between family members were also the main focus in the teaching of Malay language. As shown above, kissing the hands of elders is a sign of respect. But more than this, being respectful and showing love were linked throughout the course materials. In *Mekar 2B*, for instance, there is a picture of a grandfather and a grandmother who were hugging their grandchildren, accompanied by the following poem:

<p>Kecil molek si burung merpati,            Tidaklah sama dengan si angsa;            Datuk dan nenek harus di hormati,            Kelak bahagia sepanjang masa.</p>	<p>The petite little dove,            Not the same as the swan;            Grandparents should be respected,            Happy you shall be, all the time.</p>
<p>Mengayuh kolek sampai ke Changi,            Singgah di tepi mencari makan;            Datuk dan nenek kita sayangi,            Harus selalu berikan dakapan</p>	<p>Pedalling the boat to Changi,            Stop by for some food;            Grandparents who we love,            Should always be given cuddles</p>
<p>Buah betik, buah berangan,            Disimpan bersama sebiji kelapa;            Datuk dan nenek jangan lupakan,            Pasti gembira apabila berjumpa.</p>	<p>Papaya, chestnuts,            Kept with a coconut;            Don't ever forget grandparents,            Sure we are glad whenever we meet.            (CPDD 2008d, p. 43)</p>

## Work Hard/Persevere

To be hardworking and persevere were also emphasised throughout the text materials. This message could be conveyed implicitly, for example, through the story of a hardworking ant that has diligently collected food before the rainy season arrives. In the story, a neighbouring grasshopper was too busy singing and dancing. When the rainy season arrived, the grasshopper which was cold and without food was helped by the ant and his friends. Variations of this story are told in many languages and also taught in other languages in Singapore primary schools. However, the implicit message is reinforced explicitly in ML classes through other means such as poems:

Jika kita mahu berjaya	If we want to succeed
Jangan lekas berputus asa	Do not give up quickly
Kita perlu rajin berlatih	We must diligently practice
Mesti tahan penat dan letih	Must bear with tiredness and fatigue
Usah asyik berangan-angan	Do not daydream
Tekun dan gigih menjadi pegangan.	Determination and hard work is our belief
Kita harus kuatkan semangat,	We must strengthen our spirit,
Agar badan sihat dan kuat.	So that our body is strong and healthy.
	(CPDD 2008c, p. 68)

### Help One Another

The most frequent value emphasised in the textbook was ‘to help one another/to cooperate’. The message of helping others is evident throughout the course materials for P1 and P2 and is often addressed explicitly. For example, a story of a bird saving a drowning ant is presented. The ant eventually saves the bird from hunters. The message at the end of the page is: “Why do we need to help one another?” In another part of the same book (p. 12), there is a picture of a child (Zainal) who cuts himself after a fall. The accompanying dialogue says, “Do not cry. We will help you.” What is interesting is that the dialogue does not only express comfort (“Don’t cry.”) or practical assistance but also provides the overt message of helping each other. In the next page, one student takes Zainal to the restroom to wash, while a second student carries Zainal’s bag and a third student calls for their teacher – involving numerous students in being helpful (CPDD 2008b, pp. 12–13). The activity was followed by a recommended oral practice using the prompt: “Have you ever helped your classmates? What did you do? Tell your partner” (CPDD 2008b, p. 13).

This value was also taught implicitly in stories (the ant and the grasshopper, above), in poems and in examples of helping the poor (as above, “Be good hearted”), as well as through examples of helping neighbours, family members and school-mates. These messages are overlapping and serve to reinforce each other. For example, in Lesson 3 of *Mekar 1A*, there is a dialogue of a student who is crying because she doesn’t know where the classroom is. A senior student reads the name tag and sends her to the correct classroom. The P1 student then says, “Thank you (elder) sister.” Addressing a stranger as ‘sister’ is also a norm in the Malay community to portray respect equivalent to that which is given to the interlocutor’s own sister. Thus, the example combines courtesy and respect with the value of helping others as expressed through the use of appropriate language.

## Be Responsible

In *Mekar 1B* (CPDD 2008b, pp. 26–27), there is a picture of two children named Amir and Ani who got separated from their parents. Two strangers then tried to give them chocolate. Both children refused the offer. On the next page, there is a monologue by Ani: “I have to take care of my younger brother, Amir. I have to make sure we are both safe.” As above, the basic story line could be found in language materials for other languages. However, the unique stance taken by the ML materials is not only ‘be careful of strangers’ but also the emphasis on being responsible for others.

## *Elements of Culture in the Textbooks*

In addition to the values discussed above, various cultural elements were portrayed throughout the course materials. Values can be very generic and shared between people across cultures and religion like respecting others, being helpful, etc., but culture is quite in-group specific, shared by the distinct group of people, which distinguishes them from other ethnic groups (Alisjabana 1966, p. 11). In addition, as above, ‘cultural elements’ are those which were not specified as ‘values’ in the syllabus, but which surfaced in the document study. These included clothing, games, holidays and several other elements.

The most frequently portrayed cultural element was the dress code of the Malay community in various settings. Almost all women and men portrayed in the materials wore Malay traditional clothes including scarves for women and head covers for men, although not all Malays dress this way in daily life. The style of dress is closely related to the main religion adopted by the majority of Malays in Singapore. Additional features such as Friday prayers – which is not specifically for Malays but more for Muslims – were also found. Even though religion is not included as part of the secular school syllabus, religious features were also incorporated in the textbooks as cultural elements. This may be due to the fact that Malay culture and values are very closely related to Islam, the dominant religion practised by the Malays.<sup>3</sup> Based on the document study, there seems to be an assumption that the majority of Malays are Muslim. For example, in *Mekar 1B* (CPDD 2008b, p. 14), in the discussion of daily activities, there is a background image of a mosque and two students who wear *songkok* (an oval headgear for prayers) and traditional Malay shirts standing in front of a mosque for activities on Friday.

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<sup>3</sup> It is to be noted that the definition of Malay differs in the region. In Malaysia, for example, those who are Muslim, speaks Malay language and practice Malay culture are categorised as Malays, whereas, in Singapore, the race was determined by patrilineal ethnicity until 2011. Subsequently a double-barelled race option was introduced for parents to list a hyphenated ethnicity of a child (e.g., Chinese-Malay).

Examples of Malay cultural elements frequently portrayed in the textbooks include:

### Aspects of Clothing

Overall, many of the images of the Malay women in the P1 and P2 textbooks show woman who wore *baju kurung* (a Malay traditional costume) and head covering – whether teacher, mother or grandmother. The image of a Malay woman covering herself is thus portrayed as a norm in the life of the Malay community, although this sort of coverage is not universal.

### Traditional Games

In addition to traditional clothing, other traditional elements were included in the course materials. These included traditional games, wedding traditions, the bringing of gifts when visiting and celebration of Malay/Muslim holidays. For example, in *Mekar 1A* and *1B*, there are pictures of traditional wooden tops and also pictures of children playing *congkak*, a Malay traditional game. Interestingly, in one case, the image *congkak* is used to teach the sound ‘kak’, which could be done via the linguistic item *kakak* – elder sister – a more common linguistic item in modern Malay-Singaporean life (CPDD 2008a, p. 78). Introducing the image of *congkak* to teach this sound might also require the teacher to elaborate on the traditional game, though this is not addressed in the textbook. (See also Yang, Chap. 11, this volume, for similar issues in linking Chinese sounds and lexical items with cultural content which might be unfamiliar to the students.)

### Customary Marriage

Malay customs were briefly introduced in the P2 textbooks. In *Mekar 2B*, for example, there is a picture of a woman with head covering and a boy dressed in Malay traditional costume standing near a bed filled with wedding gifts and adorned with flowers (CPDD 2008d, p. 41). On the next page, there is an explanation of some things that must be done for a wedding. Each item includes a picture with a one-sentence explanation. For example, there is a picture of *bunga manggar* – long sticks made from coconut leaves and adorned with coloured paper. These are stabbed into a pineapple which is then pierced with a long bamboo stick and carried to the left and right of the groom when he walks to the bride’s house. In the picture, there is also a pineapple with instructions saying “Stick the Bunga Manggar in a pineapple.” For Malays, this is a clear symbol of a preparation for a marriage ceremony. It is worth noting though that some modern Malays no longer follow the tradition and have a simple registered marriage at Syariah court or will have a more

westernised celebration and do away with all the traditional customs. However, the textbook only portrays a more customary/traditional marriage.

### Visiting and Bringing Gifts

Culture practices such as bringing gifts when visiting someone are also included in the P2 course materials. For example, when a female child, Siti, attended her friend's barbecue event, she brought a dessert in the form of a jelly as a gift (CPDD 2008c, p. 12). Later in the same textbook, there is a story of a wounded little bee, assisted by little bee's sister, who is visited by other animals bearing gifts (CPDD 2008c, pp. 37–39). The message to help one another and to bring gifts when visiting the sick is implicit but quite clear.

There is also information on procedures of living with neighbours. Among other things discussed is the culture of visiting. For example, *Mekar 2B* shows how guests are received with a story of guests who came to visit Aunt Rukiah, who had just given birth. The guests were served a variety of delicacies. There is also a picture of five men sitting cross-legged on the floor facing each other around a *safo/safo* – a cloth stretched in front of them and used as a base for presenting dishes. This is the traditional way of the Malays eating their food, sitting on the floor around the cloth. For example, *Mekar 2A*, pp. 76–79, includes a story of Mr. Raju and his wife visiting the family of Mr. Ramli. This is used to introduce dialogue (what to say when visiting neighbours) along with proper behaviour for visiting. The practice of bringing a small gift or food to an event is surely not unique to Malay culture; my point is the fairly explicit integration of this cultural expectation with the language learning curriculum.

### Celebration of Hari Raya

There is information about Hari Raya, the celebration at the end of a month of fasting. Muslims all over the world celebrate the holy month of fasting and its conclusion, Hari Raya. In one instance, the celebration of Hari Raya was illustrated through a poem with three pictures (CPDD 2008b, p. 56). The first picture shows traditional Malay outfits for men and women. The second picture portrays a family enjoying a meal at the dining table. The third picture displays Malay children entertaining their foreign friends with traditional Malay dishes such as *ketupat*, a type of Malay rice cake. *Ketupat* is a must in almost all Malay family in Singapore and Malaysia celebrating Hari Raya. *Ketupat* has also become a symbol of Hari Raya celebrations with the image shown in festive greeting cards and television programmes for the holiday. Besides that, on page 57 of *Mekar 2B*, there is an image of an elderly woman weaving the coconut leaf into a *ketupat* casing and a girl asking how the weaving is done. These images show several of the values and cultural elements mentioned above, for example, the type of food prepared by the Malay in

celebrating Hari Raya and the costumes which differ from Muslims in other parts of the world. Besides that, the image also implies the core value “To be willing to explore/to try new things” listed in the ML syllabus (p. 6). All of this is done within in the context of a holiday which is specifically Muslim.

### Eating with Right Hand

While different types of Malay foods are mentioned frequently, as seen above in the discussion of holidays and gifts, there are also references to how to eat politely and hygienically according to standards that are accepted among Malays. Normally, in the Malay culture, the small bowl half-filled with water will be used for guests to wash their hands or a special container with a small kettle filled with water will be taken to guests to wash their hands. This is illustrated in *Mekar 2B* with an excerpt: “Please take this washbowl for hand washing over there” (CPDD 2008d, p. 35). This is a symbolic of the Malay culture of first washing the hands and then eating with hands.

On page 36, there is an explanation: “Suria observes (that) the right hand is being washed first and the nearest dish is taken first.” This information is intended to cultivate polite manners as well as cleanliness when eating in a group in Malay society.

### Care for Hygiene

In addition to hand washing in the context of eating, close examination of the course materials showed that hygiene was taught consistently as a part of Malay culture.

An example of the emphasis on hygiene can be seen in this poem (CPDD 2008d, p. 86):

Mencari cendawan ke Batu Pahat Membeli raga di gerai Pak Johan; Mari kawan dengarlah nasihat, Cara-cara menjaga kebersihan.	Looking for mushrooms till Batu Pahat, Bought a basket at Uncle Johan’s stall; Come on friends listen to the advice, On how to care for cleanliness.
Biji berangan biji selasih, Bawa ke Kedah dijual di pekan; Cucilah tangan sehingga bersih, Sebelum dan sesudah makan.	Chestnut seeds and basil seeds, Brought to Kedah and sold in town; Wash your hands till it’s clean, Before and after meals.
Pokok selasih si perigi Hang Tuah, Rumpai di kolam dimakan ikan; Dicuci bersih sayur dan buah, Hilangkan kotoran sebelum dimakan	Basil tree and Hang Tuah’s well, Weeds in the pond eaten by the fish; Vegetables and fruits are washed clean, Remove the dirt before eating.

Letak pasu di atas para,	Pots are placed on a shelf,
Letak sabut di hujung jemuran;	Place the sun-dried husk at the tip;
Ketika masak bersih sentiasa,	When cooking it must always be clean,
Ikatlah rambut jangan berguguran.	Tie your hair so as not to let it fall.

### Manners When Pointing

Another Malay mannerism depicted in the textbook is how a person points to something. Using the index finger is considered impolite, rather the thumb is used. This is reflected in *Mekar 2B*, as something a polite guest would do: “Guests do not use their index finger to point at something far away. They use the thumb to point” (CPDD 2008d, p. 36).

### Use of Pantun (Malay Rhyming Poetic Form)

One other notable feature of the course materials is that many of these values and cultural traditions are taught via *pantun* – a traditional poetic rhyming, usually an oral form of expression. “[The pantun] is a two or four-line verse consisting of alternating, roughly rhyming lines. The first and second lines sometimes appear to be completely disconnected in meaning from the third and fourth, but there is almost always a link of some sort. Whether it be a mere association of ideas, or of feeling, expressed through assonance or through the faintest nuance of a thought, it is nearly always traceable” (Sim 1987, p. 12). For example:

Kecil molek si burung merpati,	The petite little dove,
Tidaklah sama dengan si angsa;	Not the same as the swan;
Datuk dan nenek harus di hormati,	Grandparents should be respected,
Kelak bahagia sepanjang masa.	Happy you shall be, all the time

In the above pantun, lines 1 and 2 are expressed through assonance, while the actual message is in lines 3 and 4.

Pantuns are used abundantly in the textbooks for P1 and P2 as can be seen in the examples above. In fact, most of the messages for the core values discussed in this chapter were related through pantun, which seems to be quite unique to Malay language instruction. Pantuns typically have an implicit message or moral, as in the examples shown in this chapter. In addition, the pantuns found in the textbooks were suggested for a variety of types of activities including introducing interactive reading activities, listening activities and speaking activities. Through uses of pantun, language skills such as pronunciation, intonation and oral fluency are linked to vocabulary development and cultural aspects of Malay life in ways both explicit and



implicit. However, no explanation about the pantun as a traditional Malay poetic form or as a way of conveying implicit values and cultural elements is given in any of the textbooks examined.

### ***Summary of the Document Study***

It is clear from the document study that almost every chapter or lesson unit in the course materials for P1 and P2 brings in aspects of moral values and culture either explicitly or implicitly, often via pictures, stories, dialogues and pantuns. Many of the messages are reiterated throughout the materials for both years. What is particularly interesting is the way in which many values (such as being hard-working, being kind) are portrayed as being part and parcel of being Malay. This is done through the use of combining specifically Malay elements (such as traditional clothing or foods) with these values, as shown in the examples above. This is in keeping with policy initiatives that encourage mother tongue maintenance as part of a cultural heritage and moral ballast for students in a modern world. However, to what extent is the integration of values, culture and language fully implemented in the context of the ML classroom? This question was considered by means of classroom observations – taking into account not only how the course materials were used but also any other evidence emerging from classroom lessons which seemed to reference values of Malay culture.

### ***Values and Cultural Elements in Malay Language Lessons***

To what extent and in what ways are the values and culture-related messages in the syllabus and textbooks incorporated in lesson delivery? In this section, I discuss the introduction of values and cultural elements in the observed lessons. What was most noticeable from the analysis of the lesson transcripts and video recordings was the relative silence on these points in contrast to the many examples found in the document study. In general, values and cultural elements were touched on only momentarily in the teaching of Malay language, if at all.

Among all of the options discussed above for values from the syllabus or identified cultural elements, only ten appeared in the observed lessons. In addition, in all of the identified instances, actual discussion was very short – usually less than 30 seconds. These discussions tended to focus on vocabulary (1, 2, 3 and 7) or simply a brief mention of a game or activity with little explanation. Out of 16 observed lessons, the scarce and limited references to either values or cultural elements in class stand in stark contrast to their introduction in the textbooks, explicitly and implicitly. A brief description of what took place in the lessons which did refer to values or cultural elements is given in Table 15.3, indicating what information was introduced/addressed and how.

Throughout the examples in the table, it is clear that teachers could have elaborated on the values and cultural elements which were present in the textbook and which arose, briefly, in the lessons. In Table 15.3, Example 1, although Hari Raya was not the focus of the lesson (vocabulary), the teacher could have captured the teachable moment and asked students to relate their activities at home given the close proximity of the holiday. It is also noteworthy that the teacher did not mention any of the rich textbook material or other lessons which related to Hari Raya. In Example 2, when the student asked about taking dishes to neighbours, the core value of love, respect and helping one another/cooperation could have been brought in by the teacher. The vocabulary items ‘giving’ (*memberi*) and ‘taking’ (*menghantar*) were discussed in the lesson, but there was no elaboration on the cultural context. This important issue could have been deliberated further by the teacher, if she had been alert to highlighting core values and culture elements as and when the opportunity arises. Interestingly, the culture of bringing gifts upon visiting was discussed in the same chapter, so a link would have seemed to be appropriate.

Although data from the observed lessons shows a general pattern of lack of elaboration on values and cultural elements, it is also clear that not all teachers treated all materials in the same way. Examples 3 and 4 deal with the same materials and the topic of ‘yellow glutinous rice’ in two different schools. In one school (Example 3), the teacher spent 34 seconds to explain that in the past, Malays made glutinous rice to celebrate certain events such as feasts, birthdays and so forth. In another school (Example 4), the teacher spent more time— 1 min and 42 seconds – to discuss the same concept. However, the longer time was required only because the second teacher was looking for the picture of yellow glutinous rice in the textbook. In both cases, the teachers treated this merely as vocabulary, but without including any cultural context.

Based on the information from the classroom coding, teachers were more focused on teaching aspects of grammar and the four other main language skills than on values and cultural elements (see Silver et al., this volume). The focus on skills is appropriate given the syllabus, but it is also clear that teachers in the observed lessons did not take advantage of opportunities to instil values or link cultural elements even though these are also part of the syllabus. This conclusion tallies with the statement in MLCPRC that, “The current level of cultural content was found by teachers, parents and students to be adequate. However, a recent major study of classroom practices found that a number of teachers did not adequately address cultural content in class. What is needed is a different degree of engagement with this content” (MOE 2005, p. 21). This research has also shown that values and culture elements are not being given enough attention by teachers.

**Table 15.3** Values and cultural elements as presented in lessons

Example	Grade level	Description
1.	P2	The teacher was introducing new vocabulary from a story book before students read a story. The discussion of the vocabulary was done through a game, pass the parcel. The song played for the game was a Hari Raya song. However, the vocabulary and the story were not related to Hari Raya, and Hari Raya was not the topic of the lesson. During the activity, the teacher told the students that Hari Raya would be celebrated in 2 weeks time. No other comments were made, and no other explanations were given
2.	P2	This lesson was about the celebration of a birthday and the discussion was about the act of giving (gifts, etc.). Though birthday celebrations and gift giving are not specific to Malay culture, giving of gifts and sharing of food when visiting is a central part of the culture. In this context, a student asked, "Ah, our neighbours, so do we have to send them dish?" To which the teacher replied, "Yes." There was no further elaboration or discussion, for example, of the value 'be courteous' or of appropriate gift giving and sharing of food as gifts
3.	P2	During another lesson which used a birthday celebration as a context, the teacher, looking at the textbook said "Wow!" then read "Grandma brought yellow glutinous rice." The main focus of the story was actually to introduce how Malays celebrate occasions traditionally. Yellow glutinous rice is normally served with some special Malay delicacies such as <i>rendang</i> (meat cooked in coconut milk and spices) or given to guests in small amounts with coloured eggs at weddings. In this case, the teacher explained briefly that in the past, people made yellow glutinous rice to celebrate certain events like birthdays and feasts, but the idea of celebration with special delicacies was not brought out as a focus of the lesson.
4.	P2	In the same textbook lesson noted above but with a different teacher at a different school, the yellow glutinous rice was also mentioned. However, this teacher did not explain about the yellow glutinous rice, instead briefly asking the student to find the picture of yellow glutinous rice in the story book and stopping at that
5.	P2	In this lesson on healthy foods, the teacher mentioned dates, the benefits of eating dates and that dates are eaten each evening during the fasting period, during the meal to break the fast. No other explanation or comments were given, and there was no discussion with students
6.	P2	This was a rather isolated case in which the teacher says, "He reads like <i>zapin dancing</i> " <sup>a</sup> as an analogy to show that the student was reading too slowly. The lesson was not about dancing or any traditional Malay customs, cultural elements or values. No description of the <i>zapin dance</i> was given
7.	P1	The teacher was discussing heroes and heroines, the textbook topic; the word <i>silat</i> was introduced. This is a traditional Malay form of martial arts. The teacher explained that <i>silat</i> is a form of martial arts to describe an action of a heroine in the textbook. No other discussion ensued.

(continued)

**Table 15.3** (continued)

Example	Grade level	Description
8.	P1	In this lesson, the teacher discussed many activities/games during leisure time, using PowerPoint to show some traditional games. <i>Congkak</i> was mentioned, and the teacher told the student that <i>congkak</i> is a traditional Malay game. She then admitted that she herself does not know how to play <i>congkak</i> , and the discussion ended
9.	P1	From the same lesson as Example 8 on traditional games, <i>gasing</i> (a type of top) was mentioned. The teacher showed a picture and briefly explained that the top turns round and round and stated that in English it is called 'top'.
10.	P1	In the same lesson on games, <i>Batu Seremban</i> was mentioned. There was no example, and the explanation was simply that this is a traditional Malay game.

<sup>a</sup>*Zapin* is one of the basic genres of Malay traditional dance introduced to Malays in Peninsular Malaysia by Arab traders together with the spread of Islam

## Discussion

Though the observed lessons covered only 8 schools and 16 Malay language lessons, and the document study was limited to P1 and P2 documents, the findings help to shed light on ML teaching in Singapore primary schools, a relatively under-researched area. In particular, the description and analysis show that the proposed policy link between values-culture-language can be lost in classroom teaching. Curricular documents seem to reinforce these connections, often implicitly, while teachers rarely address these connections in class. Teachers might have various reasons for focusing more fully on linguistic aspects, especially the fact that examinations are based on language skills and proficiency.

Findings by the MLCPRC (MOE 2005) clearly stated that:

Some teachers were of the view that there were too much to be covered in the teaching of ML based on the syllabus and instructional materials (IM) that are provided by the MOE. As a result, they rushed to complete all the units available in the IMs during ML lessons. They suggested that the topics in the textbooks be reduced to allow them more room to innovate and provide more in-depth in their instruction. (p. 68)

This could also be one of the reasons why values and culture elements found in the textbooks were not given due attention.

While the document study confirmed that there are many opportunities for teachers to draw on the instructional resources provided to them, the lesson observations suggest that inculcating values or making use of cultural elements requires teachers to be alert to teachable moments. For example, many *pantuns* were incorporated in the texts. While these quite often conveyed value-laden messages, they were usually used only for reading and speaking fluency or vocabulary building. At the same time, the poems themselves are an element of Malay culture which can enhance

students' interest as they highlight the beauty of the language. For example, in a pantun found in *Mekar 2B* (CPDD 2008d, p. 20), highlighting the beauty of traditional Malay costumes, the rhyme scheme gives the poem symmetry while linking traditional Malay clothes for women with the idea of modesty. Note the repetitions of “kamera” in both stanzas and then the final syllable of “kebaya” (stanza 1) and “bergaya” (stanza 2).

Klik, klik, klik	Click, click, click
Bunyi kamera	The sound of a camera
Si gadis manis	The sweet girl
Berbaju kebaya	Dressed in ‘ <i>kebaya</i> ’
Klik, klik, klik	Click, click, click
Bunyi kamera	The sound of a camera
Berbaju kurung	Dressed in ‘ <i>baju kurung</i> ’
Segak bergaya	Smart and stylish
Klik, klik, klik	Click, click, click
Berbunyi kamera	The sound of a camera
Berpakaian sopan	Dressed modestly
Sungguh menawan.	It’s so captivating.
	(CPDD 2008d, p. 30)

In ‘A Song Poem’, below, there is a different rhyming structure – with *pagi* used in lines 1 and 3 in stanza 1, but *enam* and *tanam* used in lines 1 and 3 of stanza 2. The poem also has a different emphasis, of love towards earth and the importance of maintaining a green environment by planting and caring for plants. This complements the idea of Singapore as a city in a garden promoted by the Singaporean government.<sup>4</sup>

<u>Tanam Pokok Bunga</u>	<u>Growing Plant</u>
Air pasang pagi	Morning tide
surut pukul lima	Receding at five o'clock
saya bangun pagi	I wake up in the morning
siram pokok bunga	Water the flowering plant
Air pasang petang	Evening tide
Surut pukul enam	Receding at six o'clock
Pada masa lapang	In my spare time
Pokok saya tanam.	I planted trees.
	(CPDD 2008b, p. 56)

<sup>4</sup> See, for example, the National Parks Board website, <http://www.nparks.gov.sg/ciag/>, or the Urban Redevelopment Authority website, [http://www.ura.gov.sg/uol/publications/research-resources/books-videos/2013-11\\_vertical\\_garden\\_city\\_sg.aspx](http://www.ura.gov.sg/uol/publications/research-resources/books-videos/2013-11_vertical_garden_city_sg.aspx)

Together, these examples show some of the opportunities for exploring values, cultural elements and aspects of language (e.g., vocabulary) along with the beauty of the language. These are opportunities not to be missed if the language is to be kept alive not only as language but also as part of cultural identity.

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## References

- Abbaspour, E., Nia, M. R., & Zare’, J. (2012). How to integrate culture in second language education? *Journal of Education and Practice*, 3(10), 20–24.
- Abdullah, K. (1996, May 20–24). *The inculcation of values in bilingual education*. Paper presented at the International Conference of Malay Studies, People’s Republic of China.
- Abdullah, R. (2008). Kepelbagaian bahasa dalam komunikasi di kalangan masyarakat Melayu di Singapura [Language variety in the communication of the Malays in Singapore]. *Jurnal Bahasa*, 14(69), 69–86.
- Abdullah, R. (2010, July). *Curriculum implementation of mother tongue policies in Singapore*. Paper presented at the 17th international conference on learning, Hong Kong Institute of Education, July 2010.
- Abdullah, R. (2011). *Lower primary Malay lessons (CIEPSS Final Report, Supplement 3)*. Singapore: Centre for Research in Pedagogy and Practice, National Institute of Education.
- Alisjahbana, S. T. (1966). *Values as integrating forces in personality, society and culture: Essay of a new anthropology*. Kuala Lumpur: University of Malaya Press.
- Chua, B.-H., & Kuo, C. Y. (1995). The making of a new nation: Cultural construction and national identity. In B.-H. Chua (Ed.), *Communitarian ideology and democracy in Singapore* (pp. 101–123). London: Routledge.
- Curriculum Planning & Development Division [CPDD], & MOE. (2008a). *Mekar 1A*. Singapore: Marshall Cavendish Education.
- Curriculum Planning & Development Division [CPDD], & MOE. (2008b). *Mekar 1B*. Singapore: Marshall Cavendish Education.
- Curriculum Planning & Development Division [CPDD], & MOE. (2008c). *Mekar 2A*. Singapore: Marshall Cavendish Education.
- Curriculum Planning & Development Division [CPDD], & MOE. (2008d). *Mekar 2B*. Singapore: Marshall Cavendish Education.
- Heng, S. K. (2011). Speech by Mr Heng Swee Keat, Minister for Education at the Opening Ceremony of the MOE Heritage Centre on 1 September, 2011. Retrieved from <http://www.moe.gov.sg/media/speeches/2011/09/01/speech-by-mr-heng-swee-keat-at-8.php>
- Kramsch, C. (1993). *Context and culture in language teaching*. Oxford: Oxford University Press.
- MOE. (2005). *Report of the Malay Language curriculum and pedagogy review committee [MLCPRC]*. Singapore: Author.
- MOE. (2007). *Sukatan Pelajaran Bahasa Melayu sekolah rendah 2008 [2008 Primary Malay Language syllabus]*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/education/syllabuses/mother-tongue-languages/files/malay-primary-2008.pdf>

- MOE. (2009). *Report of the primary education review and implementation committee*. Singapore: Author. Retrieved from [http://planipolis.iiep.unesco.org/upload/Singapore/Singapore\\_PERI\\_2009.pdf](http://planipolis.iiep.unesco.org/upload/Singapore/Singapore_PERI_2009.pdf)
- MOE. (n.d.) *Desired outcomes of education*. Retrieved from <http://www.moe.gov.sg/education/desired-outcomes/>
- Neuendorf, K. (2002). *The content analysis guidebook*. Thousand Oaks: Sage.
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks: Sage.
- Silver, R. E., Pak, S., & Kogut, G. (2010). *Curriculum implementation in early primary schooling in Singapore (CIEPSS): Coding scheme manual*. Singapore: National Institute of Education, Singapore.
- Silver, R. E., Wright, S., Amasha, S. A., Abdullah, R., Curdt-Christiansen, X.-L., Lakshmi, S., Yang, Y., Yeo, J. K. K., & Pak, S. (2011). *Curriculum implementation in early primary schooling in Singapore (CIEPSS)*. Singapore: National Institute of Education.
- Sim, K. (1987). *More than a pantun: Understanding Malay verse*. Singapore: Times Publishing International.
- Tajudin, J. (2004). *Perancangan bahasa di Singapura: Pengekalan dan anjakan Bahasa Melayu sejak 1965* [Language planning in Singapore: Maintenance and shift of Malay Language since 1965]. Unpublished master's thesis, National Institute of Education, Nanyang Technological University, Singapore.

# Chapter 16

## Coding and Comparing Pedagogic Features of Teaching Practices: What Happens in Chinese Language Classes in Singapore's Primary Schools?

Shouhui Zhao and Guowen Shang

### Introduction

In multilingual Singapore, the unique arrangement of English-mother tongue bilingualism is designated as the cornerstone of the quadrilingual education system. The policy was born out of a perceived pragmatic need to compete in the global economy by using the English language while preserving the cultural values and heritage of each ethnic group via mother tongue language (MTL) education (Dixon 2005). Specifically, Singaporeans are required to be proficient in both the English language and their respective ethnic MTL, namely, Chinese, Malay, or Tamil. The quadrilingual education policy, as reiterated by the MOE (2011), is a key strength of Singapore because it has not only enabled Singaporean students “to plug into a globalized world” but also established “a link to their heritage and Asian roots for the various ethnic groups,” a distinct edge that “has shaped Singapore into a cosmopolitan city that embraces multi-lingual and multi-cultural diversity” (p. 10). (Though see Kirkpatrick's comments, this volume, for a different orientation taken by Hong Kong's language-in-education policy.)

The bilingualism practiced in Singapore is a heavily biased language policy, often referred to as “English-knowing bilingualism” (Kachru 1983; Pakir 1991). Privileged as the lingua franca of the society and the medium of instruction in all schools, English assumes an unwaveringly predominant role in Singapore's education system. In contrast, the MTLs, perceived by the government as cultural

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ballast and national identity markers that anchor each ethnic community to their Asian roots, are positioned as second languages (L2) in the education system. It should be noted that the initial designation of MTLs as L2 had little to do with the pedagogical nature of MTL education in the country, for the teaching and learning of the CL in Singapore's schools were largely characteristic of first language (L1) education, at least before the 1990s (Chew 1998). Apart from the sociopolitical reasons, the designated role of MTLs as L2 in the education system is a manifestation of the government's deliberate practice of pragmatism (Tan 2006) or linguistic instrumentalism (Wee 2003), because a solid foundation in L2 can provide Singaporeans with an additional advantage to compete in the global economy. Particularly with the rise of China as an economic power, a mastery of the CL is often described in the official discourse as a valuable asset for Singaporeans to benefit from China's development (see also Goh and Lim, this volume).

Despite its success in nurturing functional bilinguals within a society accommodating a number of frequently spoken home languages such as English, Mandarin, Chinese dialects (e.g., Hokkien, Teochew, Cantonese), Malay, Tamil, and other languages, the quadrilingual policy practiced in Singapore has engendered a profound and far-reaching impact on MTL teaching and learning (Silver and Bokhorst-Heng, this volume). Considering CL education for instance, at least three challenges can be identified. First, the inexorable trend of a home-language shift toward English diminishes the role of CL. Over the past two decades, a remarkable increase of EL-speaking homes has been witnessed in Singapore. According to the MOE (2011), the proportion of the population citing English as the most frequently used home language rose from 28% in 1991 to 59% in 2010 among ethnic Chinese students. Since mastery of CL is meant to preserve the cultural identity for the ethnic Chinese and the household is the ideal site where cultural values can be preserved and continued through intergenerational transmission (Tollefson 2006), the constant encroachment of EL could strain the capacity of family units to function in this respect. (See Yang, this volume, for further discussion of the cultural component of CL instruction and assumptions of cultural knowledge outside of school settings.) Second, students' CL proficiency is on the decline due to less use of the language. Despite its status as an official language of the country, CL is merely a subject in primary and secondary schools with limited curriculum time. After leaving school, most graduates use CL even less. Many scholars have noted that the CL proficiency levels of Singaporean students have been dropping rapidly as a result of this declining use. For instance, Goh (2009, p. 172) noted that Chinese students' speaking and listening competencies in CL are fairly good, yet their ability to read and write in the language is gradually lowering. Third, a lack of motivation and interest in CL learning has been observed. For many students, CL is merely a classroom language and an examinable subject in primary and secondary schools. As a result, they are disinclined to read in CL outside the curriculum, showing no intrinsic motivation to continuously learn and use the language. According to the MOE (2011), although the majority of Chinese students believe CL learning is important, fewer students from EL-speaking homes like learning CL. One of the major causes for their dislike is the difficulty encountered in CL learning. An MOE survey in 2004 showed that

among Primary 6 (P6) students, 77% from EL-speaking homes, 50% from homes speaking some CL, and 36% from mostly CL-speaking homes felt CL learning was difficult, and many students had to seek Chinese tuition in order to keep up with the pace of learning (CLCPRC 2004, p. 6). Hence, it is often articulated in scholarly articles that students' CL learning in the EL dominant context is becoming a great challenge faced by educators and parents in the Chinese community (e.g., Cheah 2003; Liu and Zhao 2008).

In response to the widespread concerns about CL education, the authorities have taken a number of remedial measures to offset the undesired effects partially brought about by the quadrilingual language policy, assuring the Chinese community that CL education is still vital to Singapore's education system. The media and official pronouncements repeatedly express that Singapore's bilingual edge hinges on a good command of English and mother tongues and that CL education will continue to play an important part in education and society (e.g., Ng 2010; Lee 2010). Moreover, in order to motivate CL learning, educational authorities keep emphasizing the economic benefit associated with Chinese, insisting that a sound CL education enables Singaporeans to tap into the rising economy of China (Sim 2009).

Apart from the endeavors on the propaganda level, the government's habitual response to the challenges facing CL education is to modify the syllabus and revamp the curriculum and teaching methods. Government statements make it clear that these initiatives are crucial to national efforts to keep bilingualism alive and remain economically competitive. Despite scholarly arguments that the education sector is not the cause nor the final solution to the problems of language use (Kaplan and Baldauf 1997) and that curriculum and pedagogical reforms are insufficient to bring radical change to the situation of CL education in Singapore (Zhao and Liu 2010), the government still rests its hope in language curriculum and professional practitioners, expecting to maximize their roles in implementing the bilingual policy through regular reviews and educational reforms.

Among the recent educational reforms in Singapore, a modular curriculum was formally launched in primary schools in 2007 in order to address the pressing problems in CL education described earlier in this chapter. In the following sections, we will first look at the basic structure and characteristics of the modular curriculum and then explore how it is being implemented in CL classrooms and whether it has lived up to the expectations of curriculum developers.

## **The Modular Curriculum: Structure and Characteristics**

Having realized that the traditional one-fits-all approach is not relevant in the current language education environment, policymakers and curriculum developers argued that the students' language backgrounds and learning abilities must be considered in the new CL curriculum. As the former Education Minister Tharman (2004) observed, "We must look, first and foremost, at the needs of our students, assess what it is that would benefit them, and give them choices" (p. 28). As such,

the MOE has adopted the modular system so that students of varying abilities can start off at different levels and progress at varying rates. In addition, to enable CL instruction to stay effective and relevant in the ever-changing social environment, new teaching approaches have been introduced in the modular curriculum. For example, student-centered and interactive approaches have been advocated as key features of the CL curriculum revision in order to foster an abiding interest in CL (CLCPRC 2004). After being piloted in 25 schools at P1 and P2 levels, the CL modular curriculum has been fully implemented in all primary schools from P1 through P6 since 2008.

Overall, the modular curriculum makes students' diverse abilities and needs a central concern, attaching great importance to oral communication and reading skills for the majority of students. The basic structure of the modular curriculum is a combination of core modules and one of three differentiated modules: Bridging/Reinforcement modules, School-based modules, or Enrichment modules are as follows:

1. All students take core modules, which account for approximately 70–80% of the CL curriculum time from P1 to P6. These modules develop listening and speaking skills and build reading and writing skills as well. The core modules serve as the mainstream course in terms of the language level and can form the baseline CL standard. They are the only modules tested in the Primary School Leaving Examination (PSLE).
2. Students with little or no prior exposure to CL can take Bridging modules (for P1 and P2 students) or Reinforcement modules (for P3 and P4 students), which are designed to build a strong foundation for students' listening and speaking skills and prepare them for taking the core modules.
3. Those students with ability and interest to go further in each grade are encouraged to take Enrichment modules, with a focus on reading skills. Enrichment modules are advised to be instructed after the core modules.
4. Schools may also adopt School-based modules to complement the core modules and suit the needs of the students in specific schools. The School-based modules can be taught by using materials specially designed for the students or part of the instructional materials in core modules to enrich teaching and learning programs.

Additionally, the modular approach gives CL teachers leeway to use any relevant teaching methods to motivate and engage students. Teachers are encouraged to “use IT, use drama, use every method to capture the interest of children,” as stated by Lee Kuan Yew (cf. Oon and Cai 2009, p. 1), the former Prime Minister and protagonist of the language policy in Singapore.

L2 pedagogy differs from L1 in a variety of aspects, and one of the major differences is that the former focuses on fostering practical communication skills and the latter concentrates on knowledge learning and culture appreciation (Hadley 2001; Larsen-Freeman 1986; Zhao and Wang 2009). From the description above, it can be seen that the modular approach is, in effect, a compromise between L2 learning and L1 learning in that an oracy-based teaching approach is adopted for weaker stu-

dents, while an approach focusing on reading and writing literacies is designed for advanced learners. This compromise has been construed in both public and academic discourses as an innovative and experimental pedagogy in Singapore, with early signs of success. For instance, in a recent MOE (2011) evaluation, the modular approach was reported as having made a positive difference to CL instruction as perceived by both students and teachers. According to MOE (2011, p. 31), the proportion of P6 students who like learning CL increased from 77% in 2004–2005 to 88% in 2010, and most surveyed CL teachers agreed that the new curriculum was beneficial for students. These claims were also supported by MOE-funded empirical research (Li et al. 2012; Liu and Zhao 2008).

## **Methodologies: Research Tool and Data Collection**

In what follows, the teaching and learning activities in the Bridging and Enrichment modules of the modular curriculum are systematically analyzed to better understand to what extent the new pedagogies meet the goals set by educational policymakers. The questions examined in this chapter are:

- (a) Are there any differences between the two levels of modular classes in terms of instructional approaches practiced by the teachers?
- (b) To what extent have the teaching approaches defined in the new curriculum been adopted in CL classes?
- (c) What are the implications of the adopted instructional practices toward pedagogical innovation and language policymaking?

The answers to these questions can further our understanding of the complexities of implementing educational reform programs in Singapore and provide empirical evidence for curriculum developers about future CL curriculum modifications.

### ***Research Tool***

To address these questions, we gathered data through classroom observation, employing the Singapore Chinese Pedagogy Coding Scheme-Version 2 (SCPCS-V2). SCPCS-V2 is a redeveloped version of the Singapore Chinese Pedagogy Coding Scheme (SCPCS-V1), a classroom observation tool modified from Luke et al.'s (2005) Singapore Pedagogy Coding Scheme (SPCS) with mother tongue categories. While a detailed description about the theoretic grounds and features of Luke et al.'s SPCS is beyond the scope of this chapter, to better understand SCPCS-V2, it is necessary to give a brief introduction about the SCPCS-V1. SCPCS-V1 was developed with eight major categories, namely, teaching phases, knowledge classification, teaching strategy, teachers' tool, students' tool, students' produced work, teachers' talk, and students' engagement. Among these categories, teaching phases

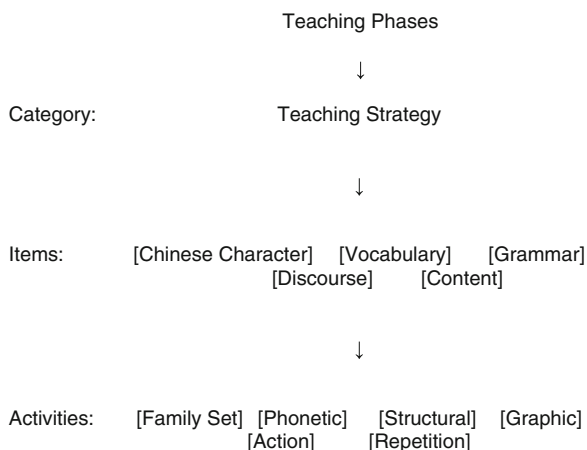
are the main category for establishing stages or “phases,” of a lesson as described below. The other categories are set within teaching phases. SCPCS-V2 adopts all of the categories founded in SCPCS-V1 and adds one new category: code-switching. The major distinction of SCPCS-V2 from SCPCS-V1 is that it includes items and activities specific to CL. That is, SCPCS-V2 categorizes classroom teaching practices and learning activities into three levels: category, item, and activity. For example, the category of teaching strategy contains five items – Chinese character, vocabulary, grammar, discourse, and content – and there are six activities in the item of Chinese character: family set, phonetic, structural, graphic, action, and repetition (Fig. 16.1). In addition, in order to record the focused elements in the modular curriculum, SCPCS-V2 places a great emphasis on students’ activities and oral communication.

Since the purpose of this chapter is to explore whether the priorities in the modular curriculum have been implemented in primary CL classrooms, in the ensuing discussion we selectively focus on five categories that characterize teachers’ pedagogical planning and students’ learning activities. Four categories are not reported in this article for the following reasons:

- **Teachers’ Strategy.** This category refers to methods the teacher uses to facilitate or deliver knowledge most of the time. It is consistent with teachers’ instructional focus and students’ modality (described below), only from a different perspective.
- **Teachers’ Talk.** This category, which includes informal, organizational, regulatory, and curriculum-related talk, does not provide much information about teachers’ teaching style; pertinent information is reflected in other categories, e.g., teaching phase.
- **Tools (including teachers’ tools and students’ tools).** The major findings derived from this category are covered elsewhere (Huang et al. 2012).
- **Students’ Engagement.** This refers to the estimated percentage of students physically paying attention to teachers’ lecturing. It is not included because it does not provide much detail about the students’ class activities.

Operational definitions for each category, item, and activity are provided in the coder’s manual and described elsewhere (e.g., Liu and Zhao 2008, 2010). Briefly, the five categories discussed in this chapter are defined as follows:

- **Teaching Phase:** Lessons are divided into teaching phases. Each phase has a distinct activity structure. It is normally a sustained activity that lasts not less than 3 min. Shifts in activity structure indicate a new phase.
- **Students’ Modality:** Learners’ focus on language skills in isolation or occurring in combinations.
- **Teachers’ Instructional Focus:** Teachers’ focus in the classroom instruction of language forms or discourse/textual structure or text content.
- **Students’ Produced Work:** Work produced by the students during classroom learning.



**Fig. 16.1** Hierarchical Coding Example for SCPCS-V2: Phase – Category – Item – Activity

- **Code-Switching:** Teachers' use of English (or other languages rather than Chinese) to explain the Chinese words or text or to give instructions.

Additional details are given below in the description of data analysis.

### ***Data Collection and Processing***

From January to July 2011, 53 P2 classes from 20 primary schools were observed, video-taped, and real-time coded by the researchers. The class size ranged from less than ten students (in some Bridging classes) to the standard class size with about 30 students. The total length of all coded CL lessons was 198 class hours. Among them, the number of lessons in the Bridging modules and Enrichment (including Higher Chinese) modules was 56 and 74, respectively, accounting for 28% and 37% of the total observed lessons. The rest were from core modules, which consisted of 68 lessons (35% of the total observations). It should be noted that although Bridging module was originally designated for English-dominant Chinese families, quite a number of learners grouped in the modules were from families where only one parent speaks English or from non-Chinese families, i.e., new immigrant parents from non-Chinese-speaking polities such as the Philippines and Vietnam.

We also collected teachers' and students' background information for reference purposes in analysis. It can be seen that of the 53 teachers involved (48 females, 5 males), the majority were aged below 40 and had 5 years or less teaching experience. All teachers obtained their professional qualifications from Singapore's local education institutions. Regarding the students' dominant home-language practices, of the total 1398 students involved, 15% of them were from Chinese-speaking

families, 27% from English-speaking families, and 58% from families with a more balanced use of English and Chinese. The students' home-language backgrounds may be used as an indicator of their CL proficiencies. That is, students from Chinese-speaking families were generally strong in CL, while those from English-speaking families were relatively weak in CL (for details, see Table 16.1).

The raw coding used check marks in appropriate categories to indicate the occurrence of specific teaching features. In addition, field notes recoding incidental occurrence and the details (including the coders' comments) that could not be encompassed in the coding scheme were kept as an interpretative aid to complement the coding. To validate the coding results, a pair-coding session, i.e., coding by other researchers using the videos, was conducted to check the consistency of the coding between the researchers. Given the scale of research and the coders' availability, it was hard to ensure a perfect one-to-one pair coding; thus, Cronbach's alpha, rather than kappa scores, was adopted when computing the reliability, i.e., an overall item agreement as a whole on each lesson observed. Of the 65 pair-coded lessons, which account for about one-third of the total 198 lessons, a high overall reliability (0.915) was achieved.

In this chapter, we describe CL instruction in Singapore primary school classrooms through a social constructivist lens that emphasizes the employment of experiential and interactive methods in a classroom where students are seen as the main agents of their learning and the teacher as a facilitator (Jones and Jones 1995). Although since the 1990s, education authorities have set up explicit guidelines promoting a student-centered approach, as a result of its historical roots in Chinese-medium schools and its emphasis on inculcating traditional cultural values, classroom practices have continued to be influenced by Chinese traditional education models (Liu and Zhao 2007; see also Yang, this volume). This has meant a heavier focus on writing and reading than on oral and aural communicative skills. The modular curriculum is, in effect, an attempt grounded in social constructivism to tackle the limitations of traditional pedagogy and curricular focus and to improve

**Table 16.1** Teachers' and students' information

Category	Specifications	No. (%)	Total no.
<b>Teachers' background</b>			
Age range	40 or below	33 (62.4)	53
	41–49	12 (22.5)	
	50 and above	8 (15.1)	
Teaching experience	0–5 years	27 (51)	53
	6–10 years	13 (24.5)	
	11 or more	13 (24.5)	
Qualifications	Diploma	5 (9.4)	53
	University	34 (64.2)	
	Postgraduates	14 (26.4)	
<b>Students' information</b>			
Language background	Chinese	212 (15)	1398
	English	374 (27)	
	Chinese and English	812 (58)	

the learning environment with a focus on student autonomy and initiative in the learning process. The coding scheme attempts to capture this tension between the two models of innovative/experimental and traditional/conventional teaching approaches. Foreexample, in terms of teaching methods, the experimental approach manifests itself in emphasizing engaging activities and interactions such as group work, role-play, and game/drama, designed to increase student participation. In contrast, activities such as silent/individual seatwork and teacher monologue with demonstrations are seen as traditional methods which emphasize transmission of exemplary linguistic and cultural knowledge based on textbooks, rather than treating students as the main agents of learning.

Our analysis in this chapter concentrates on the instructional features between the Bridging and Enrichment modules, with the emphasis on differences (instead of similarities), as these two modules typically manifested the differentiation and customization approaches in CL education. The core modules are not the focus of our discussion, and so findings on the core modules are not included here. Therefore, it should be noted that the results presented here are not a comprehensive representation of Chinese instruction in the modular curriculum but an attempt to illuminate how the modules offer distinct pedagogies.

## **Results and Findings**

In what follows, we provide description of data analysis and findings for each category. For each subsection, we first tabulate the observed data and then present our interpretations of the results. Data analysis mainly includes calculation of percentages of total time and frequency observed for each category. Specifically, teaching phases were recorded by time (minutes), and all other categories were coded according to frequency within the phases, i.e., the counting of the occurrence of a particular teaching activity. Our discussion is based on the overall occurrence and nonoccurrence of pedagogical features divided into traditional and innovative approaches as described above. The total time in the table refers to total instructional time, and for the sake of comparison, the average time of the two modules is presented.

### ***Teaching Phases***

The most important part of the SCPCS-V2 is the teaching phases of observed lessons, which are defined as a period of time that is characterized by a particular kind of social classroom organization in which a major activity takes place. As mentioned earlier, for the purpose of observation and analysis, only a sustained classroom engagement lasting for 3 min or more for a particular curriculum objective is recorded as a phase. As far as lesson phases are concerned, in SCPCS-V2 a typical CL class is composed of all or any of eight categories of phases.



Table 16.2 shows that the IRF/E (Initiation-Response-Feedback/Evaluation) dominates both advanced level and lower-level CL classes. IRF<sup>1</sup> often involved whole class answer checking and signified the teachers' checking of students' understanding of words and of the meaning of the passage and scaffolding.

The most noticeable difference found in teaching phases between Bridging and Enrichment classes was the time teachers spent on monologue and reading. Monologue here refers to a teacher's lecture to the whole class, which is seen as a typical representation of a teacher-centric approach and is thus not encouraged in L2 classes. The fact that on average only 1.72% of the time was devoted to monologue in Bridging modules appears to suggest that the Bridging classes are somewhat more interactive than are the Enrichment classes (6.91%).

In contrast, the time spent on reading comprehension in Bridging classes is nearly 10% less than that of the Enrichment classes. The different amount of time devoted to reading comprehension shows an apparently differentiated emphasis attached to the two modules. As mentioned earlier, as students in the Enrichment classes have a strong foundation, a greater emphasis can be placed on their reading development. In contrast, for the students in Bridging classes who have little exposure to CL, oral communicative skills are given priority over reading ability. Pedagogically, the prioritization of oral communication is also identified as an effective strategy to increase the learning interest for less competent students in the 2004 Chinese Language Curriculum and Pedagogy Review Committee Report (CLCPRC 2004). This emphasis on oral skills for the Bridging students is also evident in the category demonstration. Whereas the students in Bridging classes had 16.39% of class time to demonstrate their oral skills, their counterparts in the Enrichment module spent only 11.36% of class time on demonstration, suggesting that Bridging students were given more opportunities to engage in oral activities like oral presentations (e.g., show-and-tell, reporting of discussion outcomes) and role-play games.

**Table 16.2** Teaching phases across modules (average % of the total time)

Teaching/learning activities	Modules	
	Bridging	Enrichment
IRF/E	44.83	42.47
Activity/demonstration	16.39	11.36
Writing	15.08	13.57
Repetition	8.19	5.19
Reading	5.17	14.57
Discussion	4.74	3.46
Test taking	3.88	2.47
Monologue	1.72	6.91
Total	100.00	100.00

<sup>1</sup>Also referred to as IRE (Initiation-Response-Evaluation).

## *Students' Modality Across Modules*

Modality was intended to record a specific language skill focus. The emphasis here is on the students, aiming at revealing whether oral skills (listening and speaking) or written skills (reading and writing) are emphasized in classroom operations. Apart from these four basic language skills, character recognition is a feature of CL learning. Different from character writing, which is a productive task, character recognition involves two receptive tasks: to identify the individual character's meaning and to read out the character's pronunciation by looking at its written form.

With regard to the learning focus of each module, Table 16.3 shows that both Bridging and Enrichment modules spent a significant amount of time on speaking, which is evidence of adherence to one of the innovative areas (oral communicative skills) overtly advocated in the reform documents. The fact that there is almost no difference between the two modules with respect to their emphasis on speaking also suggests that the oral communication skills are equally prioritized across the two levels of classes. Apart from speaking, the two modules also spent similar amount of time on writing and listening.

In the official documents (e.g., CLCPRC 2004) that initiated the current educational reform, the MOE proposes a "recognize first, write later" pedagogical principle, placing more emphasis on character recognition (rather than writing) in the early years. Translate this into the classroom practice, if we look at the general trend, the data in Table 16.3 also shows that, out of the five major language skills in Bridging and Enrichment classes, the time students devoted to character recognition (30.37% for Bridging and 20.91% for Enrichment) comes only second to the time spent on speaking, which is 35.18% and 35.70%, respectively, for the two modules. This indicates that in both modules, although with differential emphasis, teachers appeared to see Chinese character recognition as an important aspect in learning

**Table 16.3** Students' modality across modules (average % of the total time)

Learning skill focus	Modules	
	Bridging	Enrichment
Speaking	35.18	35.70
Character recognition	30.37	20.91
Writing	16.67	15.58
Reading	11.11	18.54
Listening	6.67	7.69
Others (e.g., drawing)	0.00	1.58
Total	100.00	100.00

CL. This finding shows that the MOE's proposal of enhancing character recognition proficiency for the majority of students is being implemented, especially in the Bridging CL classroom.

Specifically, for the Bridging class, 30.37% of total class time was spent on character recognition, compared to 20.91% in the Enrichment class. This shows that the teachers in Enrichment classes placed less emphasis on character recognition than their counterparts in Bridging classes. In contrast, more importance was placed on reading in the Enrichment classes. 18.54% of the time was invested on reading in the Enrichment classes against 11.11% in the Bridging classes. The greater focus on reading activities in Enrichment classes suggests that, rather than recognizing Chinese characters, improving reading skills (more sustainable text) is seen as more appropriate for stronger learners in terms of effective and efficient utilization of classroom time, as character recognition is generally not a problem for these students.

### *Teachers' Instructional Focus Across Modules*

Table 16.4 presents the curriculum time allocation in language-related instruction across the two modules. This category of teachers' instructional focus attempts to determine the teachers' focus in the classroom instruction of language forms or textual/discourse structure and text content. The first three possible subcategories (i.e., Chinese characters, vocabulary/words, and grammar) primarily concern language form. The remaining two subcategories focus on thematically based instruction: Discourse indicates textual strategy, and content refers to subject matter and/or cultural and moral values.

From the opportunities allocated to the language form and discourse/content, it can be clearly seen that different instructional focuses match well with the needs pertinent to each group. Teachers in the lower-level Bridging module focused on improving language skills, while teachers in the Enrichment module tended to introduce content-rich tasks through utilizing their language capacity. Language form constituted the core area of instruction in Bridging classes with focus on the subcategory of character recognition, surpassing similar occurrence in the

**Table 16.4** Teachers' instructional focus across modules (average % of the total time)

Subcategories	Modules	
	Bridging	Enrichment
Character	36.34	25.26
Vocabulary	27.93	22.84
Content	17.72	31.49
Grammar	14.71	10.03
Discourse	2.10	6.40
Others	1.20	3.98
Total	100.00	100.00

Enrichment classes by over 10%. There were also marked differences for vocabulary (27.93% vs. 22.84%) and grammar (14.71% vs. 10.03%) between the two modules. This signified that the Bridging classes were predominantly language skills oriented. Bridging teachers used the bulk of the class time (78.98%) to explain and analyze language features and rules or do language-related exercises such as “sentence pattern drills” and “word formations,” in contrast to 55.15% of the time spent on doing similar activities in Enrichment classes. Instead, students in the Enrichment classes were able to make use of a significant portion of time on discourse knowledge, which includes pragmatics (the contextual and cultural appropriateness in language use), genre, lexical-grammatical clues, and content-intensified learning (such as questioning, discussing, summarizing, paraphrasing, and sentence-by-sentence explaining).

### *Students’ Produced Work Across Modules*

Table 16.5 shows results pertaining to students’ products, including both tangible artifacts and oral responses the students were required to produce during classroom learning.

Two points displayed in Table 16.5 deserve special attention. First, oracy is considered as one of the key reasons for mooting the curriculum reforms. The various types of oral products showed small but observable differences in the two modules. The students in the Bridging classes produced about 3% more oral work than Enrichment students, which confirms the modular curriculum’s key emphasis on developing oracy in the Bridging classes. When it comes to written products, the scale of differentiation between the two modules was indistinct (less than 2%).

Second, the ratio between short and sustained spoken/written output is widely seen as a key indicator of the learning effectiveness by classroom discourse research-

**Table 16.5** Students’ produced work across modules (average % of the total time)

Items	Activities	Modules	
		Bridging	Enrichment
Oral work	Nil	0.71	4.06
	Short oral response	32.27	37.32
	Sustained oral response	24.11	13.18
	Oral repetition	16.31	19.07
Written work	Character copying	13.12	10.95
	Written multiple choice	4.96	2.64
	Sustained written text	4.26	3.85
	Written short answer	2.84	6.09
Others		1.42	2.84
Total		100.00	100.00

ers (e.g., Towndrow et al. 2010; van Lier 1996) and is thus an important index that distinguishes the experiential and traditional classroom practices (Liu and Zhao 2008). Contrary to our expectation that higher-level learners would be asked to produce more sustained or grammatically complex sentences, Table 16.5 shows that the Enrichment students on average produced more short oral response (37.32%) and short written text (6.09%) than students in the Bridging classes (32.27% and 2.84%, respectively). This is particularly apparent in sustained oral response, which resulted in a striking difference of 10.93%. Apart from the explicit requirement of practicing more oral and aural skills as stated in the reform documents and the syllabus, Bridging teachers' deliberate emphasis on language exercises may contribute to contradictory outcomes. Field notes show that Bridging classes were more likely to engage students in oral exercises such as pattern drills and sentence construction, which entailed a possibility to use more extended sentences. For example, some Bridging teachers were found to spend significant class time asking individual students to orally describe daily routines by using the given vocabulary of time expressions (e.g., yesterday, early morning, 6 o'clock, etc.).

On the other hand, for the Enrichment classes, written short answers were the focus (6.09% in comparison to 2.84% for the Bridging classes), showing that the students in the higher-level module produced 3.15% more non-sustained written output than did their lower-level counterparts. According to Liu and Zhao (2008), this kind of classroom discourse with worksheets suggests that "the discursive engagement in the classrooms tended to be more traditional oriented" (p. 181). The tendency of focusing on content knowledge, seen in Enrichment classes, is also aligned with the traditional teaching described in other categories, for instance, more monologue and reading comprehension (whole class) in the category of teaching phase and reading (individual) in the category of student modality. This kind of consistency across the observed categories within the Enrichment classes creates a scenario that this group of students spent more time on learning activities such as silent seatwork (individual reading), listening to the teachers' explanations of cultural and subject content in the textbook, and writing word/phrase or sentence (short answers) on their workbook questions.

### ***Code-Switching Across Modules***

The term code-switching in this coding scheme refers to two or more sets of linguistic codes used as medium of instruction in either curriculum talk or organizational/regulatory talk. It is a very straightforward display of how English (or more rarely, other languages such as Chinese dialects) is used by teachers in CL classes. The teachers' use of code-switching as a teaching strategy in different modules is shown in Table 16.6. Here the percentages were calculated by aggregating the number of phases where code-switching occurred. That is, *infrequently* refers to those phases where only occasional uses of English words were seen, *sometimes* means that the

**Table 16.6** Teachers' code-switching across modules (average % of the total phase)

Usage frequency	Modules	
	Bridging	Enrichment
Nil	41.81	77.25
Infrequently	24.57	16.00
Sometimes	23.28	6.00
Almost always	10.34	0.75
Total	100.00	100.00

phases had more than two English sentences used, and *almost always* indicates that the phases had frequent uses of English translation or explanations.

The role of L1 in fostering the learning of L2 or foreign language teaching and learning has long been a topic in the literature of language education (Corder 1994; Kavaliauskienė 2009; Nation 2003; Ringbom 1987; Schweers 1999). It is arguably true that L2 learners will always think most often in their L1, even at the advanced level (Mahmoud 2006). Given that L1 can provide a familiar and effective way to access the meaning and content of what needs to be learned in the L2, Nation (2003) insists that the L1 should be used where needed. (See also Goh and Lim, this volume.) From Table 16.6 it can be seen that in all of the observed CL classes at the P2 level, English was employed in educational communication to varying degrees. Of significance is that in the Bridging classes, teachers engaged in code-switching in more than half of the observed phases, signifying CL teachers' recognition of the students' English proficiency as a resource in CL instruction and learning. It can be seen that in the Bridging classes, about one-third of phases (33.32%) used some English and 10.34% of the phases *almost always* resorted to English in teaching. Moreover, the fact that code-switching was employed in more than 20% of the phases in the Enrichment module shows that using L1 to facilitate teaching is actively used as an alternative instructional strategy among teachers, even in an advanced CL class – a practice also found in another empirical study on the use of nontarget language in Singaporean CL classes (Zhou et al. 2012).

## Summary

The classroom data presented above provides a vivid picture of what actually happens in “Bridging” and “Enrichment” modules of CL classes in Singapore's primary schools. The noteworthy differences found in the five selected coding categories showed that fairly distinct teaching modes have emerged in the two modules designated for two cohorts of students with different linguistic backgrounds and needs. This signifies that the innovative teaching approaches defined in the new curriculum initiatives were adopted as classroom practices. In terms of teaching phases, the Enrichment module was found to be more input based, which was obvious from the high frequency of monologue and reading comprehension. In contrast, the Bridging module was more performance-oriented as best illustrated in the

activity/demonstration category and to a lesser extent in other subcategories that require oral and written output such as IRF/E, repetition, and discussion. This tendency is also evident in the categories of students' modality and teachers' instructional focus.

With regard to the students' modality, in the five subcategories, more similarities than differences (or minimal differences) were found between the two modules, with the exception of a greater emphasis on character recognition in the Bridging modules. This suggests that Bridging class teachers tended to believe that even for weak learners, character recognition and memorization were indispensable components in helping them learn basic language skills. Concerning the teachers' instructional focus, the two modules approached the two general categories of knowledge differently; that is, linguistic materials were employed for the Bridging classes on the one hand and textual (content comprehension) and contextual (pragmatic and cultural contents) knowledge for Enrichment classes on the other hand.

The major findings in students' produced work appear to suggest two points. Firstly, the teachers in Bridging modules encouraged students to do more oral work, which aligns with the focus emphasized in the reform initiatives (CLCPRC 2004). Secondly, we note that teachers in the Enrichment module placed less emphasis on developing the advanced learners' ability for sustainable oral expression, but the more extended oral expression in the Bridging module was predominantly drills and pattern practice. With respect to code-switching, while the approach of using English in CL classes used to be a very contentious topic (see Zhao and Wang 2009 for a review), these findings revealed that, albeit varying in magnitude, code-switching was indeed used as an alternative to a monolingual instructional approach across both modules.

## Implications and Conclusion

Singapore's quadrilingual education policy within the framework of English-knowing bilingualism is an area that receives wide public and academic attention. The intent of the government's language policy is to realize what Silver and Bokhorst-Heng (this volume) called "bilingual dreams" through supporting all students to reach "balanced bilingualism." To achieve this "idealised linguistic dream" (p. 7), constant educational reforms have been made in Singapore. A case in point is CL education. CL teaching is characterized by regular top-down policy reforms that eventually lead to pedagogical renewals in classroom practice. This study was undertaken to evaluate how the problems in CL education, basically a language-in-education issue at policy level, are managed in classroom practices through reforming the curriculum priorities. Today's CL classes are increasingly attended by learners with diverse home-language backgrounds. To meet the different learning needs of the students, the modular curriculum was developed as a pedagogical solution. In this new curriculum, the student-centered language teaching approach has been recognized and promoted for many of its strengths over the

traditional one. As documented in this chapter, two characteristic pedagogies have emerged from the actual classroom practice, namely, L2 methods in Bridging modules and L1 method in Enrichment modules.

Of particular interest is the interaction between teachers' classroom practices and governmental top-down structural priorities conceptualized in the curriculum reform initiatives. While the majority of pedagogical features related to the student-centric approaches have been embraced by the classroom practitioners, there are discrepancies that may bear more implications.

Firstly, the emphasized areas in the new curriculum, such as oral and aural competence and communicative skills, were reflected well in the Bridging classes, but on the other hand, some activities that were generally indicative of analytic teaching (Liu and Zhao 2008) such as focusing on language forms (characters, vocabulary, and grammar) were disproportionately present in the Bridging module. How we should evaluate such deviation (including high scoring of IRF/E found across both modules) from what is expected by the policymakers is an intriguing issue that requires further elaboration, rather than simply giving it a label of traditional or conventional approaches (see, e.g., Liu and Zhao 2008, 2010; Yang 2010).

Secondly, from the perspective of educational ethnographies, any investigation of classroom phenomenon would require analysis in relation to learners' home and wider community (Hull and Schultz 2001). As was pointed out earlier, the CL learning context in Singapore is currently undergoing rapid transformation. On the one hand, a significant number of students come from homes where CL is used as the dominant language and thus these students have the capacity to learn beyond basic oral and aural skills. On the other hand, a growing number of students come from English-dominant homes and have minimal exposure to Chinese. Thus, they may require an emphasis on basic skills in primary grade CL lessons. Given the fact that the CL classes in Singapore's primary schools are still populated by students with diverse needs due to differences in proficiency and exposure to CL in domestic settings, the overemphasis on communicative teaching approaches without necessary critique tends to confine the teachers' agency in dealing with the actual situation in daily teaching practices.

Thirdly, the methodological dichotomy of innovative vs. traditional language teaching tends to constrain the teachers' ingenuity in adapting teaching approaches to meet the practical needs of students. In today's educational arena in Singapore, as elsewhere across the world, student-centered and communication-oriented teaching approaches have been promoted to be innovative and conducive of facilitating students' learning (e.g., Cullen 2012; Mohan and Huang 2002; Nunan 1988; van Lier 1996). The view of student-centeredness has thereby become the dominant discourse that circulates in the press and in public debates. Academically, it is also a truism that students benefit from performance-based teaching as it enables the learners to produce large amounts of linguistic output. However, as observed by Silver and Skuja-Steele, "[t]he immediate student needs and practical concerns of classroom teaching are more often relevant to pedagogy than broad, long-term policy reform" (2005, p. 123). Taking Chinese character teaching as an example, the decreased emphasis on Chinese characters is recommended in official reform



documents on the instrumental ground that its proficiency is no longer a major concern because of the successful computerization of character processing. Classroom practice shows, however, that it is still one of the key areas where teachers invest great interest and effort (see Student Modality and Teacher Instructional Focus). This indicates that despite the negative evaluation of the Chinese characters' role in CL learning by curriculum reform advocates at the policy level, teachers still consider it as an essential skill for functional literacy.

The complex picture derived from CL classroom observation highlights again an important dimension of any policy decisions on instructional approaches, i.e., any good method is indeed relative rather than exclusive, and dichotomization of teaching approaches is bound to diminish frontline teachers' space to fulfill the intended purpose of meeting the immediate needs of the specific learners in their daily teaching routine on a personal level. The current modular curriculum is characterized by its intention to respond to the needs of students with diverse learning styles, thus replacing a traditional one-fits-all approach. However, given the highly centralized nature of Singapore education, classroom practices continue to be overwhelmingly influenced by the traditional mainstream pedagogical model "with most teachers closely following 'curricular scripts'" (Towndrow et al. 2010, p. 429). Our concern is that, even if teachers do adopt aspects of the so-called innovative approach, a noncritical application of the model may itself lead to a paradoxical scenario where such desired approaches become so doctrinaire and pervasive that they evolve into a one-fits-all teaching method. This kind of inflexibility at the class level by individual teachers is also noted by other local researchers. For example, when talking about teachers' support for uniformity in policy implementation, Silver (2010) points out that it risks working "against a current goal to have more individualized education" (p. 3).

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## References

- Cheah, C. M. (2003). *Teaching and testing* [Jiaoxue yu ceshi]. Singapore: Singapore Chinese Teachers' Association.
- Chew, C. H. (1998). *The path of Chinese language education*. Singapore: The Centre for Chinese Language and Culture, Nanyang Technological University.
- CLCPRC. (2004). *Report of Chinese language teaching and learning in Singapore*. Singapore: Ministry of Education.
- Corder, S. P. (1994). A role for the mother tongue. In S. M. Gass & L. Selinker (Eds.), *Language transfer in language learning* (pp. 18–31). Amsterdam: John Benjamins.

- Cullen, R. M. (2012). *The learner-centred curriculum: Design and implementation*. San Francisco: Jossey-Bass.
- Dixon, L. (2005). Bilingual education policy in Singapore: An analysis of its sociohistorical roots and current academic outcomes. *International Journal of Bilingual Education and Bilingualism*, 8(1), 25–47. doi:10.1080/jBEB.v8.i1.pg25.
- Goh, Y. S. (2009). Bilingual education policy in Singapore: Challenges and opportunities. In C. Ward (Ed.), *Language teaching in a multilingual world: Challenges and opportunities* (pp. 171–190). Singapore: SEAMEO Regional Language Centre.
- Hadley, A. O. (2001). *Teaching language in context* (3rd ed.). Boston: Heinle & Heinle.
- Huang, M., Zhang, D. B., & Zhao, S. H. (2012). The use of ICT in the Chinese classroom: A Singapore perspective. In G. Biswas (Ed.), *Proceedings of the 20th International Conference on Computers in Education (ICCE)*. Singapore: Asia-Pacific Society for Computers in Education. Retrieved from <http://repository.nie.edu.sg/jspui/handle/10497/5116>
- Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research*, 7(4), 575–611. doi:10.3102/00346543071004575.
- Jones, V. F., & Jones, L. S. (1995). *Comprehensive classroom management-creating positive learning environment for all students*. Boston: Allyn & Bacon.
- Kachru, B. B. (1983). Models for non-native Englishes. In B. B. Kachru (Ed.), *The other tongue: English across cultures* (pp. 31–57). Oxford: Pergamon Press.
- Kaplan, R. B., & Baldauf, R. B., Jr. (1997). *Language planning: From practice to theory*. Clevedon: Multilingual Matters.
- Kavaliauskienė, G. (2009). Role of mother tongue in learning English for specific purposes. *English for Specific Purposes World*, 8(1), 1–12.
- Larsen-Freeman, D. (1986). *Techniques and principles in language teaching*. New York: Oxford University Press.
- Lee, H. L. (2010). Prime Minister Lee Hsien Loong's remarks at the press conference on mother tongue language on 11 May 2010, 11.30am at Istana. Retrieved from [http://www.pmo.gov.sg/content/pmosite/mediacentre/speechesinterviews/primeminister/2010/May/transcript\\_of\\_primeministerleehsienloongsremarksatthepressconfer.html](http://www.pmo.gov.sg/content/pmosite/mediacentre/speechesinterviews/primeminister/2010/May/transcript_of_primeministerleehsienloongsremarksatthepressconfer.html)
- Li, L., Zhao, S. H., & Yeung, A. S. (2012). Teacher perceptions of curriculum reform in Singapore primary Chinese education. *International Journal of Bilingual Education and Bilingualism*, 15(5), 533–548.
- Liu, Y.-B., & Zhao, S. H. (2007). *Classroom observation and coding of the experiment on the newly designed Chinese curriculum and pedagogy for Singapore primary schools* (Technical report). Singapore: National Institute of Education.
- Liu, Y.-B., & Zhao, S. H. (2008). Chinese language instruction in Singapore primary school classrooms: A comparative study. *Pedagogies: An International Journal*, 3, 168–186.
- Liu, Y.-B., & Zhao, S. H. (2010). Changing Chinese language pedagogy in Singapore primary classroom. *North Star: A Publication for Educational Practitioners*, 2(1), 11–24.
- Luke, A., Cazden, C., Lin, A., & Freebody, P. (2005). *A coding scheme for the analysis of classroom discourse in Singapore schools* (Technical report). Singapore: National Institute of Education, Centre for Research in Pedagogy and Practice.
- Mahmoud, A. (2006). Translation and foreign language reading comprehension: A neglected didactic procedure. *English Teaching Forum*, 44(4), 28–33.
- MOE. (2011). *Nurturing active learners and proficient users*. Singapore: Ministry of Education.
- Mohan, B., & Huang, J. (2002). Assessing the integration of language and content in a Mandarin as a foreign language classroom. *Linguistics and Education*, 13(3), 405–433. doi:10.1016/S0898-5898(01)00076-6.
- Nation, P. (2003). The role of the first language in foreign language learning. *The Asian EFL Journal*, 5(2), 1–8.
- Ng, E. H. (2010). *FY 2010 Committee of supply debate: 1st Reply by Dr Ng Eng Hen, Minister for Education and Second Minister for Defence on Strengthening Education for All*. Retrieved from <http://www.moe.gov.sg/media/speeches/2010/03/09/fy-2010-committee-of-supply-debate.php>

- Nunan, D. (1988). *The learner-centred curriculum: A study in second language teaching*. Cambridge: Cambridge University Press.
- Oon, C., & Cai, H. (2009, November 18). MM Lee wants learning of Chinese to be fun. *Straits Times*, p. 1.
- Pakir, A. (1991). The range and depth of English-knowing bilinguals in Singapore. *World Englishes*, 10(2), 167–179. doi:10.1111/j.1467-971X.1991.tb00149.x.
- Ringbom, H. (1987). *The role of the first language in foreign language learning*. Clevedon: Multilingual Matters.
- Schweers, C. W., Jr. (1999). Using L1 in the L2 classroom. *English Teaching Forum*, 37(2), 6–9.
- Silver, R. E. (2010). Curriculum implementation in early primary schooling in Singapore. *Research Brief* (No. 11-004). Retrieved from [http://www.nie.edu.sg/files/oer/NIE\\_research\\_brief\\_11-004.pdf](http://www.nie.edu.sg/files/oer/NIE_research_brief_11-004.pdf)
- Silver, R. E., & Skuja-Steele, R. (2005). Priorities in English language education policy and classroom implementation. *Language Policy*, 4, 107–128. doi:10.1007/s10993-004-6567-1.
- Sim, C. Y. (2009, April 18). Brush up Mandarin to tap China opportunities. *The Straits Times*, p. 1.
- Tan, C. (2006). Change and continuity: Chinese language policy in Singapore. *Language Policy*, 5(1), 41–62. doi:10.1007/s10993-005-5625-7.
- Tharman, S. (2004). *Closing speech on white paper debate on the report of the CLCPRC by Tharman Shanmugaratnam, Minister for Education*. Singapore: Ministry of Education. Retrieved from [http://www.moe.gov.sg/media/speeches/2004/sp200411\\_26.htm](http://www.moe.gov.sg/media/speeches/2004/sp200411_26.htm)
- Tollefson, J. W. (2006). Critical theory in language policy. In T. Ricento (Ed.), *An introduction to language policy: Theory and method* (pp. 42–59). Oxford: Blackwell.
- Towndrow, P. A., Silver, R. E., & Albright, J. (2010). Setting expectations for educational innovations. *Journal of Educational Change*, 11, 425–455. doi:10.1007/s10833-009-9119-9.
- van Lier, L. (1996). *Interaction in the language curriculum: Awareness, autonomy and authenticity*. London: Longman.
- Wee, L. (2003). Linguistic instrumentalism in Singapore. *Journal of Multilingual and Multicultural Development*, 24(3), 211–224. doi:10.1080/01434630308666499.
- Yang, Y. N. (2010). The noteworthy features of Chinese teaching in Singapore primary schools: A study based on classroom observation [Cong ketang guancha jieguo kan Xinjiapo xiaoxue Hanyu jiaoxue de zhuyao tezheng]. *International Chinese Language Teaching* [Guoji Hanyu Jiaoyu], 3, 28–35.
- Zhao, S. H., & Liu, Y. B. (2010). Chinese education in Singapore: The constraints of bilingual policy from perspectives of status and prestige planning. *Language Problems and Language Planning*, 34(3), 236–258. doi:10.1075/lplp.34.3.03zha.
- Zhao, S. H., & Wang, Y. M. (2009). On five critical relationships of Chinese education in Singapore: Perspective of language planning. *Journal of Beihua (North China) University*, 10(3), 47–58.
- Zhou, H. X., Goh, H. H., & Yan, J. (2012). Analysis on the use and functions of non-target language by teachers of Chinese language classes in Singaporean primary schools [Xinjiapo xiaoxue huawen jiaoshi ketang jiaoxue zhong fei mudiyu de shiyong ji gongneng qian xi]. *Research on Chinese Applied Linguistics* [Hanyu Yingyong Yuyanxue Yanjiu], 1, 251–265.

# Chapter 17

## Teaching Chinese to English-Speaking Bilinguals

Yeng Seng Goh and Seok Lai Lim

### A Seismic Shift in the Sociolinguistic Landscape of Singapore: The Dominance of English

One of the most significant sociolinguistic developments in Singapore over the past few decades has been the rapid rise and dominance of English within its sociolinguistic landscape. The trajectory of the gradual but relentless rise and dominance of English is clearly charted by a survey conducted yearly by the Singapore Ministry of Education (MOE) on the most frequently used home languages of Primary 1 Chinese students, as quoted in a speech delivered on 17 March 2009 by then Senior Minister Lee Kuan Yew (Lee 2009). Although most respondents indicated they use more than one language at home, the survey clearly demonstrates that the dominant household language of Chinese families has gradually shifted from Chinese ‘dialects’ such as Hokkien, Teochew, and Cantonese to Mandarin to English over the past three decades. Based on the MOE survey, the percentage of Primary 1 students speaking predominantly English at home rose from 10.3% in 1980 to 26.3% in 1990 and 42.3% in 2000 (Lee 2009). In 2004, this percentage for the first time outnumbered that of students speaking predominantly Mandarin at home. In 2010, this percentage sharply increased to 59% (Mother Tongue Languages Review Committee 2011, p. 29) and reached 61% the following year (Heng 2011). This means that increasingly Singapore primary school students of Chinese ethnicity are coming from English-speaking homes.

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The continued rise and dominance of English in Singapore society can be understood within the context of language policies introduced and implemented by the Singapore government after the country gained independence in 1965.

## **The Prominence of the English Language and the ‘Third-Generation Syndrome’**

Subsequent to the independence of Singapore in 1965, the Singapore government gradually introduced an English-knowing bilingual (Kachru 1983) policy. The important role accorded to English has been clearly spelt out in the English Language Syllabus 2010 (Primary and Secondary) crafted by the English Unit, Curriculum Planning and Development Division, MOE, Singapore (2008):

English is the medium of instruction in our schools as well as a subject of study for all primary and secondary school pupils. English operates at many levels and plays many roles in Singapore. At the local level, it is the common language that facilitates bonding among the different ethnic and cultural groups. At the global level, English allows Singaporeans to participate in a knowledge-based economy where English is the lingua franca of the Internet, of science and technology and of world trade. Singapore’s transformation into a knowledge-based economy, the rapid developments in technology, the generational shift in home language and an increasingly competitive international environment are some factors that make proficiency in English necessary for pupils. A proficient command of the language will enable pupils to access, process and keep abreast of information, and to engage with the wider and more diverse communities outside of Singapore. (p. 6)

As clearly penned in the syllabus, under the current education system, English constitutes not only a subject of study for all students but also the medium of instruction for other subjects (see Silver and Bokhorst-Heng, this volume). In all mainstream schools, Chinese – along with Malay and Tamil, the designated ethnic mother tongues for the two minority ethnic groups – is taught only as a compulsory stand-alone ‘second language’ subject and used as a medium of instruction at the primary school level for Character and Citizenship Education (CCE). There are a few exceptions in Special Assistance Plan (SAP) schools and schools adopting the Bicultural Studies Programme, which have more lessons in Chinese, but these are not the norm.

All primary schools in Singapore have adopted the above-mentioned EL1-ML2 model since 1987, with English assuming a ‘first language’ (L1) status and the respective ethnic mother tongues a ‘second language’ (L2) status, not from an acquisition point of view but rather from their varying degree of dominance in the education system. In his recent book entitled *My Lifelong Challenge: Singapore’s Bilingual Journey* (2012), Lee Kuan Yew, chief architect of the bilingual policy, describes the varying proportion of curriculum time for English and Chinese in Singapore schools as follows:

Primary schools have 75 per cent of curriculum time in English and 25 per cent in Chinese. In secondary schools, 85 per cent of curriculum time is in English and 15 per cent in

Chinese. In SAP schools and in the Bicultural Studies Programme, more lessons are in Mandarin (Chinese). For tertiary education in Singapore polytechnics and universities, English is the sole medium of instruction. (p. 19)

It is thus evident that under the current Singapore version of the bilingual policy, prominence is given to English rather than to the mother tongues.

Beyond the educational system, the dominance of the English language can be felt in all aspects of life within the Singapore society. Apart from functioning as the inter- and intra-racial *lingua franca*, it is also the *de facto* working language in all formal domains, including that of politics, business, law, technology and administration, and the language for international communication. Hence, in addition to learning English as a first language, students also tend to receive much greater exposure to English in a larger societal context than to the other official languages.

Against this backdrop of the dominance of English is the emergence of an inter-generational phenomenon that we term the ‘third-generation syndrome’. The first generation is defined as Singaporeans who speak Mandarin or one of the Chinese dialects as a home first language and who previously received a Chinese-stream education often prior to the wholesale adoption of the bilingual policy in 1987. In the context of this chapter, the term ‘Chinese-stream education’ refers to an educational policy whereby the Chinese language was taught in schools as a school first language and was also used as a medium of instruction for all school subjects such as science and humanity. English (or other languages) as a second or foreign language might also have been taught as a stand-alone school subject. This first generation would also include subsequent adult Chinese immigrants to Singapore who had received their Chinese-stream education in their former homelands (i.e., mainland China and Taiwan). As a result of a predominantly Chinese educational background with minimal or no exposure to the English language, they are usually predominantly conversant in a Chinese dialect or Mandarin. Under the influence of a three-decade-long Speak Mandarin Campaign, this first generation, the first-tier “change agents” for the intergenerational language shift, began to speak mainly Mandarin at home in place of Chinese dialects to give their children a head start in school (Tabouret-Keller et al. 1997, p. 296).

In contrast, their offspring, the second generation, were educated under the aforementioned EL1-ML2 bilingual policy. Being conversant in both Mandarin and English, the second generation, the second-tier “change agents”, speak mainly Mandarin at home to accommodate the language habits of their parents and grandparents. Nevertheless, as products of the English-dominant quadrilingual education system, they are more proficient and comfortable with English and tend to speak the language with their siblings, peers and subsequently their children, the third generation. This has resulted in a further shift to English in the household language of the current cohorts of Chinese school-age students (Aman et al. 2009). This shift towards English will increasingly become even more pronounced with the fourth generation.

The gradual shift towards English amongst the third and fourth generations of Singaporeans shows up in the yearly statistic figures produced by the above-

mentioned MOE survey as well as the census of population statistics conducted by the Ministry of Industry and Trade once every 10 years (Singapore Department of Statistics 2001, 2011). It follows then that schools have seen the emergence of a new learner profile – Chinese students who speak predominantly English at home, with minimal proficiency in Mandarin.

### ***The Impact of the Dominance of English and the Rise of China on the Learning of Chinese***

This seismic shift in the sociolinguistic profile of students studying Chinese has partly driven the Singapore government to continually review the state of Chinese language teaching in Singapore and to further implement pedagogical reforms and innovations. During the period from 1992 to 2010, the government has carried out four significant reviews.

In 1992, the Chinese Language Review Committee led by the then Deputy Prime Minister Ong Teng Cheong proposed a number of changes. First, in an effort to eradicate any negative connotation in terms of language status associated with its naming, the committee recommended that the Chinese mother tongue subjects be changed from ‘Chinese as a First Language’ and ‘Chinese as a Second Language’ to ‘Higher Chinese Language’ (HCL) and ‘Chinese Language’ (CL), respectively. Second, the committee recommended that the existing curricula be revised to have a more balanced emphasis on both language skills development and the inculcation of traditional values and Chinese culture. Third, they recommended increased CL exposure time from Primary 4 to 6 and use of CL to teach Civics and Moral education (CME). Finally, the committee recommended that more ‘Express Course’<sup>1</sup> students in secondary schools be allowed to study HCL and Chinese literature. All the above recommendations aimed to raise the status and standards of CL in Singapore in response to the needs of a generation of CL learners mainly from Chinese-speaking homes who were taking CL as a stand-alone language subject within the bilingual programme (MOE 1992).

In 1999, to keep up with the changing profile of school-age Chinese students, 40% of whom were from English-speaking homes, the Chinese Language Committee (chaired by the then Deputy Prime Minister Lee Hsien Loong) suggested setting a more realistic and differentiated standard for the teaching and learning of CL. Recommendations included lowering the admission criteria to encourage more primary and secondary school students to take HCL, naming a 10th SAP secondary school and setting up the Chinese Language Elective Program (LEP) in a third junior college to allow students who were highly proficient and interested to learn Chinese at the highest possible level and introducing the CL ‘B’ syllabus to meet the

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<sup>1</sup>An overview of the Singapore educational system can be found in MOE (2012 p. 14).



needs of students who faced exceptional difficulties in the learning of CL (MOE 1999).

Anticipating a further shift towards English and building on the foundation of the 1999 recommendations, the 2004 Chinese Language Curriculum and Pedagogy Review Committee chaired by the former Director General of Education Wee Heng Tin emphasised the pressing need to adopt a differentiated approach to the teaching of CL for students with differing language ability and household languages. In particular, the committee suggested adopting a modular approach designed to customise CL curricula for various groups of students depending on their language ability and learning needs. Schools were also encouraged to develop school-based supplementary CL curriculum that were specially tailored to meet the learning needs of their students (MOE 2004a).

The Mother Tongue Languages (MTL) Review Committee led by Director General of Education Ho Peng in 2010 stressed the importance of nurturing active learners and proficient users. The committee recognised the changing trends of language use at home, acknowledged the fact that a majority of students were now coming from English homes and reiterated that the teaching of MTL should be further customised to meet the learning needs of the diverse student profile. Recommendations include recognising different starting points and adopting different teaching approaches, strengthening interaction skills with the help of information and communication technology and making assessment authentic and creating an environment conducive to MTL usage and learning (Mother Tongue Languages Review Committee 2011).

The internal shift within Singapore in favour of an increased dominance of English, including a shift in the household language of Chinese families from Mandarin to English, is paralleled by a contradictory trend evidenced in the external rise of China as an economic powerhouse in the world. In the Singapore government's rhetoric, the economic importance of mastering Chinese is growing; as noted by Lee Kuan Yew, "All our people who do business in China know that if you can't speak Chinese, you're out" (Han et al. 2011, p. 249).

Lee Kuan Yew has further articulated the economic value of learning Chinese for Singapore as follows:

I mean the world's biggest economy can use us and help us grow but we need that language to connect with them. We need the English language to connect with America and Europe and the English-speaking world. That's how we progress. Why can't we master this and connect with China and grow with China? They're going to be the fastest growing economy in the next 20, 30, 40 years. Look at the level they are at. It will take them 60, 70, 80 years to reach the America per capita. (Han et al. 2011, p. 249–250)

This contradictory trend between the internal rise of English dominance in Singapore on the one hand and the external rise of China and the resulting growing economic importance of mastering Chinese on the other means that it is becoming increasingly pressing to tackle the various challenges associated with CL teaching under the quadrilingual policy.

However, even with the rise of China and the growing importance of Chinese, what is important is not Chinese alone, but Chinese in the context of bilingualism.



The government continues to reiterate the centrality of the bilingual policy in the nation's national and economic agendas. According to Lee (2012), Singapore needs bilingualism in both Chinese and English in order to be able to add value to China:

The value of Singaporeans working in China lies in their knowing both Chinese and English. Knowing Chinese alone is not enough. Even if your command of Chinese is as good as that of the native Chinese, you bring little value to China and the Chinese. They do not need more Chinese-speaking people from Singapore; they already have 1.3 billion of them. We Singaporeans add value because of our knowledge of the wider English-speaking world and the networks we have built up. English-educated Singaporeans are familiar with and well-connected to the systems, peoples and cultures of America, Europe, Japan, India and Asean. (p. 205)

In that light, Chinese will continue to be taught in Singapore as a second language under the larger framework of the quadrilingual policy. Faced with an evolving generation of learners from varying language backgrounds, it is timely to explore and develop a sound pedagogical model that effectively addresses the challenges of teaching Chinese as a second language (CL2).

## **Learner Profile: Shift from the Outer Circle to the Expanding Circle**

In his earlier papers, Goh (1999; Goh and Lim 2010) modified Kachru's model (Kachru 1985, 1992) of the three concentric circles of global English, namely, the Inner Circle, the Outer Circle and the Expanding Circle, to represent the spread of global Chinese. The Inner Circle of global Chinese refers to the traditional base of native speakers, which includes mainland China and Taiwan where Chinese is the dominant language in society. The Outer Circle represents overseas Chinese communities around the world where Chinese is not the dominant language of their countries of residence but is usually confined to the home domain or within the Chinese community. The Expanding Circle refers to those regions of non-native users, such as Japan, South Korea, North America and Europe, where Chinese is learnt and spoken as a foreign language.

Singapore was classified in Goh's (1999; Goh and Lim 2010) earlier papers as part of the Outer Circle of global Chinese. However, with the shift from Mandarin to English in the household language of Chinese families, the picture is becoming less clear. The continued rise of English in Singapore has led some Singapore academics such as Pakir (2001) to argue that Singapore is increasingly becoming an Inner Circle region of English speakers in the realm of global English. In contrast, in the realm of global Chinese, Singapore is gradually shifting from the Outer Circle to the Expanding Circle of Chinese users where Chinese is increasingly learnt as a second language without being used within the home context.

As mentioned earlier, the latest MOE statistics indicates that the percentage of Primary 1 students speaking English at home has reached 61% in 2011. The very real challenge is that this percentage will continue to rise in the years to come and

that Chinese will increasingly be learnt and used as a second language in spite of the government's commitment to bilingualism at the policy level, thus minimising Singapore's perceived unique advantage. The daunting challenge now is what could or needs to be done at the policy level to ensure that Mandarin remains vibrant in the school and societal contexts so that a bilingual population could be maintained in the ensuing years.

The other equally pressing issue is the development of a new pedagogical model that targets the different learning profile of the 61% students coming from English-speaking homes (CL2 learners). Schools cannot adopt wholesale pedagogical models developed for learners from the Inner Circle (CL1 learners) and expect such models to work for students from the Expanding Circle; the underlying learning profiles of CL2 and CL1 learners are very different. CL2 learners might start off learning Chinese at school without a basic spoken Chinese foundation unlike CL1 learners who would normally have acquired basic oral Chinese proficiency since young. Secondly, in sharp contrast to CL1 learners, CL2 learners commence their path of learning Chinese with a pre-existing dominant foundation in another first language. The combination of an absence of a spoken Chinese foundation and a pre-existing dominant L1 foundation in another language means that the existing mainstream Chinese-only CL1 teaching approaches and methods that work well for CL1 learners may not be as effective for CL2 learners.

## CL2 Teaching: The Teaching of Hanyu Pinyin as an Example

To further illustrate our point, the teaching of Hanyu pinyin will be used as an example. Current mainstream CL1 approaches towards the teaching of *Hanyu pinyin* often present learners with *Hanyu pinyin* (Chinese phonetic transcription) romanised phonetic symbols, together with pictures acting as additional stimulus prompts. The examples presented in Table 17.1 were taken from the Primary 1A Chinese textbook (Curriculum Planning & Development Division 2007, p. 7).

In the corresponding Teaching Guide (Curriculum Planning & Development Division 2007, p. 8), it is suggested that teachers make use of the pictures in the textbook as a guide to teach the pronunciation of the three single vowels. This approach presupposes that the learner already possesses a solid oral Chinese foundation and thus is suitable for a L1 learner who can activate a pre-existing mental lexicon to associate and link the *Hanyu pinyin* symbols with the pronunciation of words already existing in memory. However, this approach might be less effective

**Table 17.1** An L1 approach to the teaching of single vowels

Vowel	Picture	<i>Hanyu pinyin</i>
i	衣 (shirt, blouse)	<b>yi</b>
u	屋 (house)	<b>wu</b>
ü	鱼 (fish)	<b>yu</b>

**Table 17.2** Comparison between look-alike English words and Hanyu pinyin transcription

Chinese characters	<i>Hanyu pinyin</i>	IPA	English word	Pronunciation error
蝶	dié	[tiɛ]	die	[daɪ]
滾	gǔn	[kuən]	gun	[gʌn]
滿	mǎn	[man]	man	[mæn]

for a beginning CL2 learner who has zero or very limited foundation in the target language. When looking at the picture placed side by side with the *Hanyu pinyin* symbols, no relevant Chinese word comes to mind, and hence, the intended link between the *Hanyu pinyin* symbol and the sound it represents cannot be established.

Furthermore, when CL2 learners seek to master *Hanyu pinyin*, the presence of a dominant L1 may also affect and influence their learning. Take a learner whose first language is English (EL1) as an example. Although the romanised letters of the English alphabet and the romanised phonetic symbols of *Hanyu pinyin* largely look alike, they may or may not represent the same phonetic representation. A quick look at the International Phonetic Alphabet (IPA) equivalents of the look-alike English word and *Hanyu pinyin* transcription in Table 17.2 show this. Therefore, as is also demonstrated in Table 17.2, rather than assisting EL1 learners with accurate Chinese pronunciation, the romanised *Hanyu pinyin* could introduce inaccurate pronunciation.

Hence, teachers teaching EL1 learners must take into account the possible impairment of learner performance due to L1 interference coupled with the way pronunciation is presented using romanised letters. Teachers have to actively develop teaching techniques that help to raise an EL1 learner's awareness of potential negative transfer and need to consider the possible problems of L1 grapho-phonological knowledge when processing *Hanyu pinyin*.

## A New Pedagogical Model: The Bilingual Approach to the Teaching of Chinese

From the above example regarding the teaching of *Hanyu pinyin*, which constitutes a basic component of a typical Chinese course for CL2 learners, it is clear that current mainstream CL1 teaching approaches have to be modified in order to fit the new CL2 learner profile.

Already in the early 2000s, the MOE commissioned research into improved language pedagogy. In 2002 and 2003, the MOE launched a pilot project at four selected primary schools with a high proportion of students from English-speaking homes. The aim of the project was to explore the feasibility of adopting a bilingual approach (BA) to help such students learn Chinese (L2). Pursuant to positive feedback received from students, parents, teachers and principals, in 2004 MOE expanded the programme to include seven other schools (MOE 2004b). In 2010,

further research was conducted and a bilingual approach involving the use of both Chinese and English linguistic resources in the teaching of Chinese to EL1-CL2 students was developed (Goh 2007).

A central feature of the bilingual approach is to treat the learner's acquired L1 as a learning resource rather than a learning obstacle. Already in the early 1990s, Soh and Neo's (1993) empirical study about whether Singapore primary school students' comprehension of texts presented in their L2 (Chinese) could be improved by invoking relevant prior knowledge through their L1 (English) strongly confirmed that an advantageous crosslinguistic priming effect was obtainable. The findings further indicated that activating students' prior knowledge in their master language (L1) prepared them conceptually for subsequent understanding of a text in their target language (L2).

There is ample support in the literature for the principled use of L1 in the L2 classroom. For example, Cook (2001) questioned the theoretical basis for the avoidance of the L1 in the L2 classroom by teachers and students and called for a re-examination of the above view based on the argument that

...the justifications for this rest on a doubtful analogy with first language acquisition, on a questionable compartmentalization of the two languages in the mind, and on the aim of maximizing students' exposure to the second language, laudable but not incompatible with use of the first language... Treating the L1 as a classroom resource opens up several ways to use it, such as for teachers to convey meaning, explain grammar, and organize the class, and for students to use as part of their collaborative learning and individual strategy use. The first language can be a useful element in creating authentic L2 users rather than something to be shunned at all costs. (p. 402)

Cummins (2008) similarly challenged the compartmentalisation of languages, which he found was premised on the "two solitudes" assumption. The pedagogical implication of this assumption is that second and foreign language instruction "should be carried out, as far as possible, exclusively in the target language without recourse to students' first language (L1)" (p. 65), and he argued that it has minimal research support. He went on to advocate the application of bilingual instructional strategies, such as translation and the use of bilingual dictionaries, which "acknowledge the reality of, and strongly promote, cross-language transfer" (p. 65), citing theoretical rationale and empirical evidence from two sources, "(a) the role of pre-existing knowledge for learning (Bransford et al. 2000); and (b) the interdependence of proficiency across languages (Cummins 1981, 2001)" (p. 67).

Reporting on research carried out in Chinese and Gujarati community schools in the United Kingdom from a language ecology perspective, Creese and Blackledge (2010) use the term *translanguaging*, coined by García (2007), to refer to a "flexible bilingual approach to language teaching and learning" (p. 103). The translanguaging practices of bilingual participants in these language classrooms involved students using "whatever signs and forms they had at their disposal to connect with one another, indexing disparate allegiances and knowledges and creating new ones" (p. 112) in very fluid ways. Creese and Blackledge argue for "a release from monolingual instructional approaches and advocate teaching bilingual children by means

of bilingual instructional strategies, in which two or more languages are used alongside each other” (p. 103).

Similarly, in a study conducted at nine Chinese heritage language schools in Newcastle and Manchester, Li and Wu (2008) identified key ways in which classroom pedagogy in bilingual classrooms can intentionally activate knowledge in L1 to facilitate L2 learning. They examined the tensions and conflicts between the ideologies and practices pertaining to the language of instruction. They observed that teachers in these schools used the students’ dominant language, English, during Chinese classes for various pedagogical purposes including establishing a pedagogical focus, eliciting a response, checking comprehension, feedback and translation and explanation, although ‘speak Chinese only’ is often the stated school policy and the teachers’ stated belief. Teachers also resorted to English for classroom management and disciplinary issues and switched to English when they encounter difficulty in explaining new terms and concepts in the language they are teaching. Likewise, students in these classes constantly switched to English to clarify doubts, express views and respond to the teachers’ questions. Based on their observation, Li and Wu argued that, “In a truly bilingual class, code-switching should be the norm; it should be encouraged and celebrated” as “avoiding code-switching means suppressing one of the most important characteristics of being bilingual” (2008, p. 229).

Echoing Li and Wu’s viewpoint, Levine (2011) argued that

...as observed and demonstrated empirically by some scholars, the language classroom is a multilingual environment (Antón and DiCamilla 1999; Belz 2002, 2003; Blyth 1995; Chavez 2003; Cook 1999, 2001; Kramsch 1997, 1998; Levine 2003, 2005; Liebscher and Dailey-O’Cain 2004). This means that for each learner, at least two languages are involved in the L2 learning process. For us to deny, in our pedagogy, a role for the cognitively and socially dominant language, is to ignore a large part of the L2 learning process and the individual’s learning experience. (p. 5)

Based on the assumption that an L2 learner is a developing, functional bilingual capable of switching codes creatively as societal bilinguals do, Levine suggested viewing code-switching as “a normal, creative aspect of bilingual speech in the language classroom” and that “by developing a principled approach to code choice, we create a conceptual and experimental space – the space of the bilingual user – for the learner to grow into” (p. 33).

Swan (1997) provides the following illustration that clearly demonstrates the utility of regarding L1 a resource in L2 classrooms: In the English language classroom, she observed how “teachers would go through contortions to explain and demonstrate the meaning of words without translating. What often happened, of course, was that after the teacher had spent a few minutes miming, say, *curtain* to a class of baffled French students, one of them would break into a relieved smile and say ‘Ah rideau’” (p. 166). Such instances have also been observed in Singapore. For example, during a classroom observation, Yang (2010, p. 38) observed a teacher trying to explain the meaning of the Chinese word ‘充电’ (*chōngdiàn*) to her students. She tried very hard to explain its meaning in Chinese. Yet a number of students remained baffled, until one student asked: “‘Teacher, is it charging?’ After she said yes, the other students immediately responded, ‘Oh, it’s charging!’” (p. 38) thus again demonstrating the utility of employing students’ L1 in L2 instruction.

## *Main Features of BA and the Development of Bilingual Users*

Building on this vast research and taking into consideration the crosslinguistic transfer of skills and knowledge from the L1 to the L2, it is important to analyse the ways in which the L1 has been or can be judiciously used in L2 teaching and to decide from research findings where, when and how L1 can best be used to help learners learn L2, particularly at the early stage of L2 learning. The main features of such a bilingual approach (BA) are as follows:

### 1. *Chinese as the main medium of instruction and English as a supplementary tool.*

The BA constitutes a transitional measure in a L2 learner's early stage of learning Chinese. Therefore, it is recommended that, while Chinese remains as the main medium of instruction, English could be used as a supplementary tool in the classroom. At the early stage of learning, it is suggested that a varying ratio of English use could be approximately 30 and 70% (research is ongoing in this regard) for the use of Chinese in terms of teacher talk and instructional materials. As the students' proficiency level in Chinese gradually improves, the frequency of using English can be reduced accordingly. Under the BA, Chinese will remain as the main medium of instruction and English could be judiciously employed as a scaffold when giving instructions, explaining tasks and concepts, asking and answering questions as well as clarifying doubts. Teachers using the BA are encouraged to apply the 'sandwich technique' (Butzkamm and Caldwell 2009; Dodson 1972), when using English to facilitate the learning of CL:

- (i) 把课本拿出来。 Take out your textbook. 把课本拿出来。

As illustrated in the example above, the instruction or explanation is first given in the target language (Chinese) followed by an idiomatic translation in the learners L1 and a repetition of the sentence or phrase in the target language. The teacher will monitor the students' understanding and remove the scaffold once the students have mastered a certain expression.

### 2. *Actively activate the metacognition of learners.* The BA seeks to raise the meta-linguistic awareness as a learning strategy by distinguishing between the similarities and differences of Chinese and English in terms of conceptual language knowledge (e.g., form, structure and genre) and higher-order thinking skills to facilitate comprehension.

At the level of teaching and learning Chinese, BA constitutes a bridging pedagogical tool to help students from English-speaking homes access Chinese. However, the role and contribution of BA goes beyond that of a bridging tool to aid the teaching and learning of Chinese. Through the creation and acceptance of a bilingual classroom ecology and its emphasis on the fundamental skill of translation, both verbal and written, BA also has a direct impact on establishing a bilingual identity as well as enhancing students' ability to develop into confident and competent bilingual users of language.

In terms of real-life language use, L2 learners often need to crisscross and mediate between their L1 and L2 worlds. In Singapore, even if you try to speak

Mandarin, you inevitably have to make reference to many words and concepts originating from English since it is the dominant language in Singapore. In addition, the increasingly globalised world now requires Singapore to produce talent with the bilingual skills including the ability to switch and translate between English and other languages as the context requires. The bilingual approach to MTL teaching – including learning the basic skill of translation – helps to equip our students with the practical bilingual skills and also helps to foster their identity as functional bilingual users of language.

Despite the rise of English, Singapore still has a vibrant and diverse language ecosystem. In the field of CL teaching and learning, Singapore represents a unique laboratory. Its exploration and experience in teaching the 61% student cohort who come from English-speaking homes would be of interest and relevance to educators and teachers hailing from the Expanding Circle. Its approach to teaching the 39% student cohort who comes from Mandarin-speaking homes would prove useful to overseas Chinese communities hailing from the Outer Circle, such as Chinese heritage learners in the United States. Hence, in the midst of a growing global wave to learn Chinese, Singapore represents a unique transit hub for the teaching and learning of Chinese of relevance to both Outer and Expanding Circle educators and learners.

## References

- Aman, N., Vaish, V., Bokhorst-Heng, W., Jamaludeen, A., Durgadevi, P., Feng, Y. Y., Khoo, B. S., Mardiana, R., Appleyard, P., & Tan, T. K. (2009). *The sociolinguistic survey of Singapore 2006*. Singapore: National Institute of Education.
- Antón, M., & DiCamilla, F. J. (1999). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. *The Modern Language Journal*, 83(2), 233–247.
- Belz, J. A. (2002). The myth of the deficient communicator. *Language Teaching Research*, 6(1), 59–82.
- Belz, J. A. (2003). Identity, deficiency, and first language use in foreign language education. In C. Blyth (Ed.), *The sociolinguistics of foreign-language classrooms: Contributions of the native, the near-native and the non-native speaker* (pp. 209–248). Boston: Heinle.
- Blyth, C. (1995). Redefining the boundaries of language use: The foreign language classroom as a multilingual speech community. In C. Kramsch (Ed.), *Redefining the boundaries of language study* (pp. 145–183). Boston: Heinle.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn: Brain, mind, experience, and School*. Washington, DC: National Academy Press.
- Butzkamm, W., & Caldwell, J. A. W. (2009). *The bilingual reform: A paradigm shift in foreign language teaching*. Tübingen: Narr Verlag.
- Chavez, M. (2003). The diglossic foreign language classroom. In C. Blyth (Ed.), *The sociolinguistics of foreign-language classrooms: Contributions of the native, the near-native and the non-native speaker* (pp. 163–208). Boston: Heinle.
- Cook, V. J. (1999). Going beyond the native speaker in language teaching. *TESOL Quarterly*, 33(2), 185–209. doi:<http://dx.doi.org/10.2307/3587717>
- Cook, V. (2001). Using the first language in the classroom. *The Canadian Modern Language Review*, 57(3), 402–423. doi:[10.3138%2Fcmr.57.3.402](https://doi.org/10.3138%2Fcmr.57.3.402).



- Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *Modern Language Journal*, 94(1), 103–115. doi:10.1111%2Fj.1540-4781.2009.00986.x.
- Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3–49). Los Angeles: Evaluation, Dissemination and Assessment Center California State University.
- Cummins, J. (2001). *Negotiating identities: Education for empowerment in a diverse society* (2nd ed.). Los Angeles: California Association for Bilingual Education.
- Cummins, J. (2008). Teaching for transfer: Challenging the two solitudes assumption in bilingual education. In J. Cummins & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (Bilingual education 2nd ed., Vol. 5, pp. 65–75). New York: Springer.
- Curriculum Planning & Development Division (Chinese Unit). (2007). *Chinese language for primary schools: Textbook 1A; Teaching guide 1A*. Singapore: Panpac Education Pte Ltd.
- Curriculum Planning & Development Division (English Unit). (2008). *English language syllabus 2010 primary & secondary (Express/Normal [Academic])*. Singapore: MOE.
- Dodson, C. J. (1972). *Language teaching and the bilingual method* (2nd ed.). London: Pitman.
- García, O. (2007). Foreword. In S. Makoni & A. Pennycook (Eds.), *Disinventing and reconstituting languages* (pp. xi–xv). Clevedon: Multilingual Matters.
- Goh, Y. S. (1999). Challenges of the rise of global Mandarin. *Journal of the Chinese Language Teachers Association*, 34(3), 41–48.
- Goh, Y. S. (2007). English language use in Chinese language teaching as a second language: Making the most of the learners' linguistic resource. In V. Vaish, S. Gopinathan, & Y.-B. Liu (Eds.), *Language, capital and culture: Critical studies of language and education in Singapore* (pp. 119–131). Rotterdam: Sense Publishers.
- Goh, Y. S., & Lim, S. L. (2010). Global Mandarin. In V. Vaish (Ed.), *Globalization of language and culture in Asia* (pp. 14–33). London: The Continuum International Publishing Group.
- Han, F. K., Ibrahim, Z., Lin, R., Chan, R., Chua, M. H., Lim, L., & Low, I. (2011). *Lee Kuan Yew: Hard truths to keep Singapore going*. Singapore: Straits Times Press.
- Heng, S. K. (2011). Speech by Mr Heng Swee Keat, Minister for Education, at the Singapore Chinese Chamber of Commerce & Industry (SCCCI) Mid-Autumn Festival at the SCCCI auditorium on 9 September 2011. Retrieved from: <http://www.moe.gov.sg/media/speeches/2011/09/09/speech-by-mr-heng-swee-keat-at-sccci-mid-autumn-festival.php>
- Kachru, B. B. (1983). Models for non-native Englishes. In B. B. Kachru (Ed.), *The other tongue: English across cultures* (pp. 31–57). Oxford: Pergamon Press.
- Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk & H. G. Widdowson (Eds.), *English in the world: Teaching and learning the language and literature* (pp. 11–30). Cambridge: Cambridge University Press.
- Kachru, B. B. (1992). World Englishes: Approaches, issues and resources. *Language Teaching*, 25, 1–14.
- Kramsch, C. (1997). The privilege of the nonnative speaker. *Publications of the Modern Language Association*, 112(3), 359–369.
- Kramsch, C. (1998). The privilege of the intercultural speaker. In M. Byram & M. Fleming (Eds.), *Language learning in intercultural perspective: Approaches through drama and ethnography* (pp. 16–31). Cambridge: Cambridge University Press.
- Lee, K. Y. (2009). Speech by Mr Lee Kuan Yew, Minister Mentor, at Speak Mandarin Campaign's 30th Anniversary launch, 17 March 2009, 5:00 pm at the NTUC Auditorium Retrieved from [http://www.news.gov.sg/public/sgpc/en/media\\_releases/agencies/mica/speech/S-20090317-1.html](http://www.news.gov.sg/public/sgpc/en/media_releases/agencies/mica/speech/S-20090317-1.html)
- Lee, K. Y. (2012). *My lifelong challenge: Singapore's bilingual journey*. Singapore: Straits Times Press.
- Levine, G. (2011). *Code choice in the language classroom*. Clevedon: Multilingual Matters.
- Levine, G. S. (2003). Student and instructor beliefs and attitudes about target language use, first language use, and anxiety: Report of a questionnaire study. *The Modern Language Journal*, 87(3), 343–364.



- Levine, G. S. (2005). Articulation of code-choice practices in the foreign language classroom. In C. Barrett & K. Paesani (Eds.), *Language program articulation: Theoretical and practical foundations*. Boston: Heinle.
- Li, W., & Wu, C. J. (2008). Code-switching: Ideologies and practices. In A. W. He & Y. Xiao (Eds.), *Chinese as a heritage language: Fostering rooted world citizenry* (pp. 225–238). Honolulu: University of Hawaii, National Foreign Language Resource Center.
- Liebscher, G., & Dailey-O’Cain, J. (2004). Learner code-switching in the content-based foreign language classroom. *Canadian Modern Language Review/La revue canadienne des langues vivantes*, 60(4), 501–525. Reprinted in *The Modern Language Journal*, 89(2), 234–247, 2005.
- MOE. (1992). *Chinese language teaching and learning in Singapore: Report of the Chinese language review committee*. Singapore: Author.
- MOE. (1999). *Ministerial statement by DPM BG Lee Hsien Loong on Chinese language in schools in parliament* [Press release]. Retrieved from <http://www.moe.gov.sg/media/speeches/1999/200199.htm>
- MOE. (2004a). *Report of the Chinese language curriculum and pedagogy review committee*. Singapore: Author. Retrieved from <http://www.moe.gov.sg/media/press/2004/CLCPRC%20Committee%20Report.pdf>
- MOE. (2004b). *Bilingual approach (BA) to the teaching of Chinese language at the primary level extended to seven other schools* [Press release]. Retrieved from <http://www.moe.gov.sg/media/press/2004/CLCPRC%20Committee%20Report.pdf>
- MOE. (2012). *Education in Singapore*. Retrieved from <http://www.moe.gov.sg/about/files/moe-corporate-brochure.pdf>
- Mother Tongue Languages Review Committee. (2011). *Nurturing active learners and proficient users: 2010 Mother Tongue Languages Review Committee report*. Singapore: MOE. Retrieved from <http://www.moe.gov.sg/media/press/files/2011/mtl-review-report-2010.pdf>
- Pakir, A. (2001). The voices of English-knowing bilinguals and the emergence of new epicentres. In Ooi (Ed.), *Evolving identities: The English language in Singapore and Malaysia* (pp. 1–11). Singapore: Times Academic Press.
- Singapore Department of Statistics. (2001). *Census of population 2000: Statistical release 2: Education, language and religion*. Retrieved from [http://www.singstat.gov.sg/Publications/publications\\_and\\_papers/cop2000/census\\_2000\\_release2/list%20of%20tables.pdf](http://www.singstat.gov.sg/Publications/publications_and_papers/cop2000/census_2000_release2/list%20of%20tables.pdf)
- Singapore Department of Statistics. (2011). *Singapore census of population 2010: Statistical release 1: Demographic characteristics, education, language and religion*. Retrieved from [http://www.singstat.gov.sg/Publications/publications\\_and\\_papers/cop2010/census10\\_stat\\_release1.html](http://www.singstat.gov.sg/Publications/publications_and_papers/cop2010/census10_stat_release1.html)
- Soh, K. C., & Neo, E. G. (1993). *The priming effect of English texts on the comprehension of Chinese texts* (Research paper no. 8). Singapore: Centre for Applied Research in Education, National Institute of Education, Nanyang Technological University.
- Swan, M. (1997). The influence of the mother tongue on second language vocabulary acquisition and use. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 156–180). Cambridge: Cambridge University Press.
- Tabouret-Keller, A., Le Page, R., Gardner-Chloros, P., & Varro, G. (Eds.). (1997). *Vernacular literacy: A re-evaluation*. New York: Oxford University Press.
- Yang, Y. (2010). Cong ketang shiji qingkuang kan xinjiapo huawen jiaoxue zhong yingyu de shiyong (A study on the use of English in Chinese teaching in Singapore: Based on classroom observation) (in Chinese). *Huawen Jiaoxue Yu Yanjiu*, 2, 34–41.

# Chapter 18

## Commentary on ‘Reforms’

David Cassels Johnson

### Introduction

Singapore is known for its linguistic diversity and a bilingual language policy that encourages English plus one other ‘mother tongue,’ including Tamil, Chinese, and Malay. The official educational language policy for Singapore is quadrilingual (Silver and Bokhorst-Heng, this volume), and each of the chapters in this section shows various ways in which the government and the Ministry of Education (MOE) attempt to promote all four languages. Yet, the linguistic ecology appears to be changing rapidly, with English becoming *the* dominant language in both educational and noneducational contexts. In their chapter Goh and Lim note the “rapid rise and dominance of English” and report on how the languages spoken in Chinese homes have shifted from less dominant Chinese varieties (such as Hokkien, Teochew, and Cantonese) to Mandarin and to English within the span of only three decades. They report that the percentage of Primary 1 Chinese students who speak predominantly English at home rose from 10.3% in 1980 to 61% in 2011! The “third-generation syndrome,” as they call it (p. 292), which describes how third-generation immigrants speak little, if any, of their mother tongue, is something we see in other parts of the world where English is the dominant language (Fishman 1991).

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## Discussion of the Chapters

The chapters in this section illuminate some important trends and tensions in sociolinguistic research in general and educational language policy research in particular, the first of which is how the spread of English is impacting the linguistic ecology and educational systems of countries throughout the world. While Kachru's early model of World Englishes (1992) is useful for a general understanding of three distinct contexts for English language acquisition (the inner, outer, and expanding circles), the model's inability to adequately explain what is going on in Singapore is immediately apparent. Originally portrayed as an 'outer circle' country, it is clear that it is increasingly becoming something more like an inner circle country, yet the model fails to capture the sociopolitical processes that engender its complicated linguistic ecology. Phillipson's (2003) notion of linguistic imperialism is relevant, especially considering Singapore's history with colonization and how the dominance of English has been "structurally entrenched through the allocation of resources to it" (p. 162). Taken as a whole, these chapters hint at the political and socioeconomic rationales driving English dominance in Singapore. As the MOE states in a 2008 document, "At the global level, English allows Singaporeans to participate in a knowledge-based economy where English is the lingua franca of the internet, of science and technology and of world trade" (cited in Goh and Lim, p. 292).

The belief that English acquisition is an economic boon drives educational language policies in countries around the world. This belief makes sense for an individual's economic opportunities in inner circle countries like the United States and Australia, where English is the dominant language and employment is difficult without it. It makes some sense, as well, for outer circle countries like the Philippines and Singapore, in which there is a nativized variety of English used as a lingua franca. On top of being the "lingua franca of the society and medium of instruction in all schools," English maintains its "unwaveringly predominant role in Singapore's education system" (Zhao and Shang, p. 271) because of its perceived economic value and the discourse that it is the lingua franca of technology, science, the Internet, and world trade (Goh and Lim). Yet, while English is certainly one of the "big" languages that is used in international business and trade, it is not the *only* big language, and, importantly, economic data do not support the argument that widespread competence in English causes higher levels of national economic development. Arcand and Grin (2013) and Grin (2001) measure the economic value of English for both individuals and countries (as measured in the GDP) and find that, while there is evidence that a command of English benefits individual earnings in particular contexts, English competence does not necessarily have economic value for whole countries. On the other hand, the evidence suggests that linguistic diversity *does*: "The use of local languages as a medium of instruction lowers drop-out and repetition rates, thereby leading to a higher aggregate stock of human capital; and human capital remains, in the long term, one of the keys of economic development" (Arcand and Grin 2013, p. 262–263). Thus, while its increasing prominence

in international trade and business is undisputed, the notion that higher levels of English have a positive impact on national economic development is simply not borne out in the data. Instead, as Grin argues, “[D]ecision-makers would be better advised to think in more plural terms” (2013, p. 7).

While there is little evidence to suggest that English is an economic panacea, there is plenty of evidence suggesting this belief has become hegemonic. For example, in her analysis of China’s foreign language education policy (FLEP), Pan (2011) argues that language ideologies concerning English manifest in FLEP which, in turn, position the teaching and acquisition of English as an ideologically neutral endeavor and a natural turn of events, as it were. In reality, the increasing prevalence of English has been socially engineered by the Chinese State through language policy: “[T]he assumption that English is a tool for getting ahead in social life and that teaching English is empty of ideological content is exactly an exemplification of ideological hegemony... And the individuals, the product of power, accept English as a neutral tool and misrecognize the state’s cultural governance as legitimate for their own benefit” (Pan 2011, p. 253). Yet, Pan challenges Phillipson’s argument that what is happening in China is an example of linguistic imperialism and instead argues that the spread of English to China is characterized by “two-way absorption,” aided from within by the Chinese State’s promotion of English as a tool for spreading and cultivating *Chinese* patriotism and culture. The chapters in this section suggest that something similar is going on in Singapore.

What all of the chapters in this section also demonstrate is the necessity of language planning and policy (LPP) research that captures activity across multiple layers of policy text, discourse, and practice. How do we make connections between macro-level language policy texts and discourses and the multiple layers of activity – creation, interpretation, appropriation – that ultimately lead to the instantiation (or lack thereof) of the macro-level language policy? Hult (2010) refers to this as the perennial challenge for the field, which is articulated by Ricento (2000, p. 208) in the following question: “Why do individuals opt to use (or cease to use) particular languages and varieties for specified functions in different domains, and how do those choices influence and how are they influenced by institutional language policy decision-making (local to national and supranational)?” It is encouraging to read the series of chapters in this volume taking on this challenge in Singapore. From the incorporation of Malay culture (Abdullah) to the ways in which different varieties of Tamil are utilized by teachers and students (Lakshmi), to how Chinese language teaching reflects (or does not) what is stated in official documents (Goh and Lim; Zhao and Shang), all these studies reveal connections between governmental policy and educational practices and, especially, the discrepancies between the two.

These discrepancies, especially when reflected across multiple empirical studies in the same context, reveal how teachers take advantage of ideological and implementation spaces (Hornberger 2002; Johnson 2010) in policy to meet the needs of their students. While it may be easy to criticize some of the teachers herein for some of their pedagogical practices, or how they negotiate their multilingual classrooms, what is also of interest is how they utilize their students’ multilingual resources to deliver instruction they feel best suits their students’ needs.

It is sometimes easy for researchers to become evaluative and point out the missed opportunities, communication breakdowns, and other interactions that perhaps demonstrate how teachers are struggling. Nevertheless, teachers demonstrate their agency at the point of instruction by utilizing the multilingual resources of their students instead of following a script (Zhao and Shang, this volume) and incorporating nonstandard varieties to meet the needs of their students (Abdullah, this volume).

This leads to a lingering concern. Promotion and advocacy for non-English languages in contexts like Singapore, where English increasingly plays *the* dominant role, is necessary for equitable education that utilizes students' MTs. And, while Malay, Chinese, and Tamil are certainly in need of this sort of protection, one wonders about other language varieties. Goh and Lim (this volume) mention a shift from nondominant Chinese varieties to Mandarin, which begs the question: What happens to the other Chinese dialects? Even if they cannot be taught in schools, will they still be utilized as resources to benefit the multilingual needs of students? Similarly, Lakshmi (this volume) discusses the diglossic situation with Tamil – which has both a high (written) and low (spoken) variety (along with other varieties). Will the diverse Tamil varieties be acknowledged and supported in schools, or will Standard Spoken Tamil (SST) be *the* spoken variety of schooling?

While educational language policies that promote multilingualism as a resource – as ostensibly is the case in Singapore – may demonstrate a language-as-resource orientation (Ruiz 1984), we might ask the following questions: Resources for what? And, resources for whom? Ricento (2005) has criticized the portrayal of languages as resources because this orientation tends to support military and economic interests of the state, perpetuates the view of language as an economic or military instrument, and de-links language from ethnicity or race. This “commodification orientation” is tied to state-driven agendas and tends to “focus on the instrumental values of heritage languages while ignoring (or downplaying) the human beings, communities, and socio-political dimensions of language acquisition, use, and loss” (Ricento 2005, p. 362). Ricento's concern is heritage languages in the United States, but the commodification of language is relevant for Singapore as well. Historically, the MTs have been portrayed as resources for maintaining ethnic roots, connecting to cultural identity, and building societal cohesion, especially in the face of the legacy of colonialism (Abdullah, this volume). As the minister of education, Mr. Heng Swee Keat proclaims, “[L]earning Mandarin and our other Mother Tongue Languages anchors us to our Asian culture and values” (Silver and Bokhorst-Heng, this volume, p. 4). Increasingly, however, the mother tongues, and particularly Chinese, are portrayed as resources for doing business – thus adopting the commodification orientation ascribed to English – with what is perceived to be the “fastest growing economy in the next 20, 30, 40 years” (Lee Kuan Yew, quoted in Goh and Lim, this volume, p. 295). While multilingualism is portrayed as a resource in language policy and by the Ministry of Education, the languages are primarily resources for the state's economic well-being, and, even when viewed as connectors to cultural identity, this connection is portrayed as a resource for the state's desire to

maintain national unity and cohesion. English is portrayed as a resource for everyone, Chinese is increasingly seen as a resource for everyone given the increasing opportunities to do business with China, and Tamil and Malay seem to largely be resources for Tamil and Malay speakers to stay connected to their ethnic roots. It seems as though the MOE positions *only* these four languages as resources, which means other languages and language varieties may continue to be marginalized.

These are huge challenges for Singapore, and all of us committed to educational equity for speakers of nondominant varieties in schools all around the world, which is why the work displayed in these chapters, and this book as a whole, is so vital.

## References

- Arcand, J., & Grin, F. (2013). Language in economic development: Is English special and is linguistic fragmentation bad? In E. J. Erling & P. Seargeant (Eds.), *English and development: Policy, pedagogy, and globalization* (pp. 243–266). Bristol: Multilingual Matters.
- Fishman, J. (1991). *Reversing language shift: Theoretical and empirical foundations of assistance to threatened languages*. Clevedon: Multilingual Matters.
- Grin, F. (2001). English as economic value: Facts and fallacies. *World Englishes*, 20(1), 65–78.
- Grin, F. (2013, November). *Language and development: A general introduction and a few (critical) considerations*. Plenary lecture presented at the *English Policy Forum*, British Council, Santiago de Chile.
- Hornberger, N. H. (2002). Multilingual language policies and the continua of biliteracy: An ecological approach. *Language Policy*, 1(1), 27–51.
- Hult, F. M. (2010). Analysis of language policy discourses across the scales of space and time. *International Journal of the Sociology of Language*, 202, 7–24.
- Johnson, D. C. (2010). Implementational and ideological spaces in bilingual education language policy. *International Journal of Bilingual Education and Bilingualism*, 13(1), 61–79.
- Kachru, B. (Ed.). (1992). *The other tongue: English across cultures* (2nd ed.). Urbana/Chicago: University of Illinois Press.
- Pan, L. (2011). English language ideologies in the Chinese foreign language education policies: A world-system perspective. *Language Policy*, 10, 245–263.
- Phillipson, R. (2003). *English-only Europe? Challenging language policy*. London/New York: Routledge.
- Ricento, T. (2000). Historical and theoretical perspectives in language policy and planning. *Journal of Sociolinguistics*, 4(2), 196–213.
- Ricento, T. (2005). Problems with the 'language-as-resource' discourse in the promotion of heritage languages in the U.S.A. *Journal of Sociolinguistics*, 9(3), 348–368.
- Ruiz, R. (1984). Orientations in language planning. *NABE Journal*, 8(2), 15–34.

# **Part VI**

## **Conclusion**

# Chapter 19

## Final Words: A Reflective Synthesis

Wendy D. Bokhorst-Heng and Rita Elaine Silver

### Introduction

When we began to conceptualise this book, we had a number of core questions in mind, largely emerging from what we see as a contrast between dramatically shifting sociolinguistic practices due to changing demographics and spawned by generational shifts and immigration policy on the one hand yet largely staid language ideology on the other. Language-in-education policy has attempted to manage this tension with periodic revised syllabi, outcomes and pedagogical approaches. At times, the result is linguistic inconsistency and paradox, perhaps most starkly seen in the persistent siloed approach to the teaching and learning of language (spilling even into research) which tends to regard each language in Singapore's quadrilingual education individually rather than considering bilingualism/biliteracy and translanguaging (García 2009) practices and pedagogy within quadrilingual education.

And so, we ask:

How does language pedagogy respond to current policies and to social changes in language use?

What does language education at the primary level in Singapore currently look like, and how similar or different is the pedagogy used in teaching the four languages?

What are current pedagogical innovations in Singapore's language education landscape?

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While tending towards largely descriptive analyses, these questions are nonetheless essential as we begin to map and theorise an emerging body of knowledge.

As we explored these questions, our discussion was organised around four main areas: *transitions* (in the literal sense but also in the sense of transitions through policy eras); *competencies* and linguistic/literacy capacity building and teacher's professional competency, literacy, practices and reforms; classroom and pedagogical *practices*; and *reforms*. Here, we pull these four areas together by returning to our core questions.

## Core Questions and Themes

### ***How Does Language Pedagogy Respond to Current Policies and to Social Changes in Language Use?***

One theme that emerged from our contributing authors is that, in spite of the constant reform efforts and initiatives, not much has changed. This conclusion is in itself not new and has appeared in the literature with respect to other educational reform efforts in other places and times (e.g., Curdt-Christiansen and Silver 2013; Jacobs 2010a; Wolf and Bokhorst-Heng 2008). However, studies in this book engage in a closer analysis of classroom pedagogy, looking at the micro-level at ways in which change is and is not occurring, allowing us to nuance such analyses. We read in a number of chapters how the Chinese language curriculum has gone through regular reviews and recommendations but ultimately with little effect. We see this also in Aman's discussion of early childhood education. The curricular framework, the policy, is based on a philosophy of child-centredness that regards the teacher as a resource and for learning discovery, as opposed to an instructor. However, Aman found that, while one of the schools did indeed incorporate components of such a model and philosophy, the other did not, instead persisting in teacher-centred pedagogy and teacher-delivered skills-based curriculum. She identified both teacher beliefs and parental expectations as factors contributing to this reluctance to change. Lakshmi and Yang also referred to the impact of teacher beliefs on (partial) acceptance of policy recommendations. Their work also highlights how changing demographics mean that students are not just English or mother tongue speakers (Tamil and Mandarin, respectively); instead, they come from diverse home language and cultural backgrounds. Teachers try to grapple with this diversity to meet the needs of students while also meeting the goals of the curriculum (see also Zhao and Shang). And so, as we take a step back and reflect on our initial question about what change has really happened due to educational reform efforts, and reflect on the answer of 'not much', the next question to consider in subsequent research would be 'Why?' More specifically: What are the main

obstacles to educational reform? Is it about the reforms themselves (usually initiated by policymakers), or is it about the implementers of the reforms (usually teachers), or both, or the gap between the two? What other factors might come into play?

Another theme throughout this book is the way that teachers and schools continue to try to mesh with policy expectations. This effort is seen, for example, in the teaching of ‘culture’ in the mother tongue evident in Yang’s chapter on cultural representations in teachers’ talk and in the Ministry of Education’s target for high-quality reading instruction for all as discussed by Shegar and Ward and by Vaish. It is also seen in the tension that arises between the goals of differentiated instruction to meet individual needs and the necessity of doing so within the broader system that requires all students to study the same materials under the same curricula and syllabuses with the same high-stakes exams – the focus of Zhao and Shang’s analysis of pedagogy in the Chinese language classrooms.

### ***What Does Language Education at the Primary Level in Singapore Currently Look Like, and How Similar or Different Is the Pedagogy Used in Teaching the Four Languages?***

One answer to this question comes in Zhang, Aryadoust and Zhang’s chapter. In the introduction to their chapter, they identify one of the challenges in biliteracy learning in Singapore as the ‘lack of coordination’ and even the ‘lack of communication’ between the English language teachers and the mother tongue teachers, calling this a “two-worlds apart view”. Such policy and pedagogical practices, they note, ironically promote language separation rather than multilingualism. A number of authors (e.g., Goh and Lim) also noted that in broad strokes, the use of L1 is not encouraged in all L2 classrooms (see also Lakshmi), even though language acquisition research strongly indicates the value of using L1 in the classroom to facilitate L2 language learning and even though such language separation violates the everyday languaging practices of bi- and multilingual speakers – a theme we will come back to.

Abdullah provided a descriptive account of the ways in which the language curriculum was infused with cultural and moral values essential to the definition and character development of a Malay. Pictures, stories, dialogue and the pantun were richly steeped in moral and cultural identification and were further supported (but with room for added emphasis) by teacher pedagogy. This relationship between moral/cultural values and language education was in direct response to language policy expectations. And finally, Silver, Curdt-Christiansen, Abdullah, Lakshmi and Yang examined the pedagogical practices in all four official languages, looking at how classroom teaching is similar or different. They found that teaching is quite similar across the different language classrooms, which they surmise is evidence of the impact of common polities and cultural beliefs about education.

## ***What Are Current Pedagogical Innovations in Singapore's Language Education Landscape?***

Many of the authors documented a range of intervention programmes that address this question. It is significant that all of these intervention programmes emerge in response to changing policies and social changes in language use, as an answer to the staid practices in schools in spite of educational reform. For example, Goh and Lim's chapter suggests a pedagogical model that responds both to the changing linguistic profile of Chinese learners in the schools and policy that continues to give prominence to quadrilingual education within the national agenda. While their bilingual approach bears resemblance to models advocated in other contexts in that it advocates for the deliberate use of L1 as a learning resource in the language classroom (they cite, for example, Cummins 2008; Creese and Blackledge 2010; Li and Wu 2008), its application in the Singaporean context offers a unique response to challenges facing Chinese teachers and learners. In their words, "it is clear that current mainstream CL1 teaching approaches have to be modified in order to fit the new CL2 learner profile" (p. 298). Sun and Curdt-Christiansen's analysis of the relationship between morphological awareness and vocabulary and reading comprehension in English Chinese bilingual Primary 3 students provides added support for the framework proposed by Goh and Lim in that their results "...suggest that children can apply their knowledge of Chinese compound morphology (combining roots) in the learning of English transparent derived words that do not involve phonological or orthographic alterations" (p. 97). That is, their analysis provides concrete evidence for the benefits of utilising L1 in the learning of L2.

Zhao and Shang provide an analysis of the modular curriculum, which has been the Ministry of Education's most recent reform for the teaching of Chinese with the aim to more effectively teach Chinese to increasingly diverse learners. They found that the pedagogy and content was indeed differentiated according to the learner types, although they cautioned against the simplistic labels of 'traditional' vs 'innovative' language pedagogy – suggesting instead that the specific context of individual classrooms needs to be considered as an important feature of this differentiation.

Other interventions include Zhang and Li's direct instruction in morphological awareness and competencies as rooted in the fact that, while there has been a shift to English, (a) it has not always been *Standard* English and (b) many children still do come from homes where their mother tongue is the primary language. Another is Zhang, Aryadoust and Zhang's strategies-based instruction intervention programme offered in both Chinese and English language classrooms.

### ***What Can Other Educators, Policymakers and Researchers Learn from Singapore's Challenges and Successes at Multilingual Education?***

In the beginning of this chapter, we noted how there is a tendency, even in research, to take a siloed approach to language in Singapore. That is, analysis typically focuses on each language individually, rather than examining bilingualism/biliteracy and translanguaging practices as are typical of bi-/multilingual speakers (an exception would be analyses of language policy which do consider all four languages). A rich example of such translanguaging practices is evident in the home described by Abu Baker – practices which, interestingly, were taken for granted by both the family and researcher. For Lakshmi and for Zhao and Shang, the interplay between languages is identified as ‘code-switching’; however, further analyses in these classes might reveal more complex translanguaging practices as well.

A number of contributors in this volume did extend their research in this regard, taking language out of its siloed confines. Above, we mentioned Goh and Lim’s work, which proposed a *bilingual* approach to language learning. Sun and Curdt-Christiansen’s analysis of morphological awareness of *bilingual* students demonstrates the added analytical value of regarding the interplay between languages within a bilingual speakers’ repertoire. “Findings from the present study highlight the critical role that language background, language structure and medium of instruction play on bilingual children’s morphological awareness development” (p. 98). They encourage educators to incorporate morphology into Chinese literacy instruction, more consistent implementation of such instruction for English across schools. The objective of Zhang, Aryadoust and Zhang’s ‘strategies-based instruction’ intervention in both Chinese and English classrooms was to facilitate communication among teachers “for better outcomes in students’ *biliteracy* learning” (p. 104), as well as to promote capacity building (emphasis added) through the explicit combination of strategy training activities with classroom-based language instruction. This included making students aware of when and how to transfer these strategies to new language learning and using contexts. Clearly the discussion in this volume contributes to the growing body of research that promotes translanguaging/plurilingual practices in the schools and in language classrooms, seen, for example, in the writings by García (2009), Piccardo (2013) and others.

The generally positive findings reported in this volume related to this discussion of a more integrated analysis of language practices also provide pause for thought for policymakers. The current quadrilingual education policy, with the L2 learning requirements tightly affiliated with one’s ethnicity, already presents a structure that is predisposed to language siloing. Curriculum structures, goals, outcomes and pedagogy and timetabling all presuppose separation. What Jacobs (2010a) says about form and function is relevant. Speaking in the context of thinking about education for the 21st century, she identifies four key programme structures that affect curriculum: the schedule, the way learners are grouped, personnel configurations and the use of physical and virtual space. Applied to the Singaporean context, we can see

how these four areas structure L2 learning within the quadrilingual system: a schedule that concurrently offers the three different mother tongue classes (thus students can only learn one),<sup>1</sup> grouping students primarily according to their ethnic language and according to age, teachers who are isolated within self-contained classrooms and separate physical spaces. All of these contribute to the siloing of language – counter-intuitively working against notions of translanguaging practices and multilingualism. Jacobs argues that we have it wrong: “Form should support function and not lead it” (2010a, p. 14). She goes on to say, “These very forms that we put our curriculum into have a great deal to do with the difficulties curriculum planners have in developing contemporary and riveting opportunities for our learners” (p. 14). And she repeats, “Form should follow function” (p. 14). And so, perhaps future research and policy should consider the ways in which we can replace existing ones to support the language outcomes appropriate to the national, societal and individual needs. Multilingual classrooms? Multi-age groups? A separation of language and ethnicity? The possibilities are wide open once we place outcomes ahead of structures.

Another theme that emerged is the importance of recognising children’s “funds of knowledge” (Moll and González 2004) in classroom pedagogical practices. The funds of knowledge initially developed in the context of diversity and multicultural education in the United States, with the aim to “give teachers theoretical and methodological equipment to address diversity through a process of engagement with the everyday conditions of life” (p. 700). The pure form of this approach is ethnographic and centres on actually visiting students’ households for the purpose of developing social relationships with family members as a way to document key features of the family’s knowledge base. This information thus informs teachers’ pedagogy and classroom practices. In so doing, Moll and González contend, “the student is no longer defined solely by what happens in the classroom, a reduced social context. The student is now understood as a person who partakes in a broader social life, which also includes the school and classroom” (p. 701). This is evident in Abu Bakar’s chapter when he identifies the importance of knowing more about children’s home literacies because parents play a crucial role in mediating the impact of school on the children. Similarly, Goh and Lim’s proposal for a bilingual approach to language learning, which places the use of L1 as central to language pedagogy, suggests a component of building on students’ funds of knowledge.

## Meriting Further Attention

Having considered what the chapters in this volume might tell us, we now consider what has not been covered. In spite of our efforts to be as comprehensive as possible, there are areas that have been missed but which merit attention and further

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<sup>1</sup>In secondary schools some students are given the option of taking up a second mother tongue (e.g., Chinese students can add Malay language).

research. One noticeable area would be assessment. Drake et al. (2014) rightly observe that curriculum, instruction and assessment are often discussed in separate conversations – including conversations as they relate to reform in the different areas – when in fact they are interdependent systems. And so no discussion about educational reform is fully complete without including assessment. Furthermore, as we think about sustainable reform, Jacobs has made a compelling argument that “starting with assessments has proven to be the most successful portal to moving school faculty and administrators into 21st century teaching and learning” (2010b p. 20).

Another crucial area for future research is that of teacher training and development in terms of current practices: How are language teachers currently trained? How are they taught to interpret the curriculum? What pedagogical strategies are they presented? Such questions would be pertinent, for example, to furthering the analysis by Silver et al. in their study of classroom teaching in the four different language classrooms. While their analysis led them to conclude that common policies and beliefs about education contributed to similar pedagogical practices, a closer look at teacher education would provide added insight.

Of interest as well is the role of teacher education/training in terms of building on current gaps. A theme that comes through is that policy initiatives often lacked clarity, specification and definition, leaving teachers (already often overburdened) with the task of understanding and developing implementation strategies. For example, Yang observed that, while the primary school syllabus clearly describes the objectives of Chinese culture teaching within the context of language instruction, “the actual cultural content to be transmitted is only very briefly described in both the primary and secondary school syllabi, amounting to only a loose guideline for Chinese culture teaching” (p. 181).

In the same vein, Zhang and Li talked about how, although mentioned in the English Language Syllabus, direct instruction on derivational morphology is only briefly covered with limited coverage of useful affixes and little – or no – instruction in the classroom. Given that their findings support a strong and positive correlation between direct instruction on English derivation and the acceleration of morphological awareness and lexical inference, it is imperative that teachers receive greater support in terms of specific content and pedagogical strategies. They found that teachers often simply skipped such instruction, and when opportunity presented itself in class to unpack morphological principles, teachers instead tended to provide a direct definition. While not explicitly stated in their chapter, one can surmise that the limited support given in the curriculum documents and probable limited training in morphological instruction accounted for this.

As noted earlier, the siloed structure of language instruction in Singaporean schools continues, in spite of the translanguaging practices of students and teachers in their out-of-school lives (and even in school). Closer analysis of teacher education would reveal ways in which teacher education might contribute to the continued siloing of language education or might reveal areas of possible interdisciplinary collaboration within the quadrilingual education system to improve teacher practice and enhance student learning (DuFour et al. 2010).

## Conclusion

While questions remain, this volume provides significant insight into language pedagogy and practice in Singapore. It provides glimpses into classrooms, allowing for empirical classroom-based analysis of language pedagogy in all four languages, operating within an ever-changing sociopolitical context that continues to drive pedagogical innovation.

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## References

- Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *Modern Language Journal*, 94(1), 103–115. doi:10.1111%2Fj.1540-4781.2009.00986.x.
- Cummins, J. (2008). Teaching for transfer: Challenging the two solitudes assumption in bilingual education. In J. Cummins & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (Bilingual education 2nd ed., Vol. 5, pp. 65–75). Boston: Springer Science.
- Curd-Christiansen, X. L., & Silver, R. E. (2013). Educational reforms, cultural clashes and classroom practices. *Cambridge Journal of Education*, 42(2), 141–161.
- Drake, S. M., Reid, J. L., & Kolohon, W. (2014). *Interweaving curriculum and classroom assessment: Engaging the 21st-century learner*. Don Mills: Oxford University Press.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work*. Bloomington: Solution Tree.
- García, O. (2009). Education, multilingualism and translanguaging in the 21st century. In A. Mohanty, M. Panda, R. Phillipson, & T. Skutnabb-Kangas (Eds.), *Multilingual education for social justice: Globalising the local* (pp. 128–145). New Delhi: Orient Blackswan (former Orient Longman).
- Jacobs, H. H. (2010a). A new essential curriculum for a new time. In H. H. Jacobs (Ed.), *Curriculum 21: Essential education for a changing world* (pp. 7–17). Alexandria: ASCD.
- Jacobs, H. H. (2010b). Upgrading the curriculum: 21st century assessment types and skills. In H. H. Jacobs (Ed.), *Curriculum 21: Essential education for a changing world* (pp. 18–29). Alexandria: ASCD.
- Li, W., & Wu, C. J. (2008). Code-switching: Ideologies and practices. In A. W. He & Y. Xiao (Eds.), *Chinese as a heritage language: Fostering rooted world citizenry* (pp. 225–238). Honolulu: University of Hawaii, National Foreign Language Resource Center.
- Moll, L. C., & González, N. (2004). Engaging life: A funds-of-knowledge approach to multicultural education. In J. Banks & C. McGee Banks (Eds.), *Handbook of research on multicultural education* (2nd ed., pp. 699–715). New York: Jossey-Bass.
- Piccardo, E. (2013). Plurilingualism and curriculum design: Toward a synergic vision. *TESOL Quarterly*, 47(3), 600–614. doi:10.1002/tesq.110.
- Wolf, J. M., & Bokhorst-Heng, W. D. (2008). Policies of promise and practices of limitations: Singapore's literacy education policy landscape and their impact on one school. *Educational Research for Policy and Practice*, 7(3), 151–164. doi:http://dx.doi.org/10.1007/s10671-008-9048-z

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