Chapter 16
Coding and Comparing Pedagogic Features of Teaching Practices: What Happens in Chinese Language Classes in Singapore's Primary Schools?

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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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R.E. Silver, W.D. Bokhorst-Heng (eds.), *Quadrilingual Education in Singapore*, Education Innovation Series, DOI 10.1007/978-981-287-967-7_16

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.

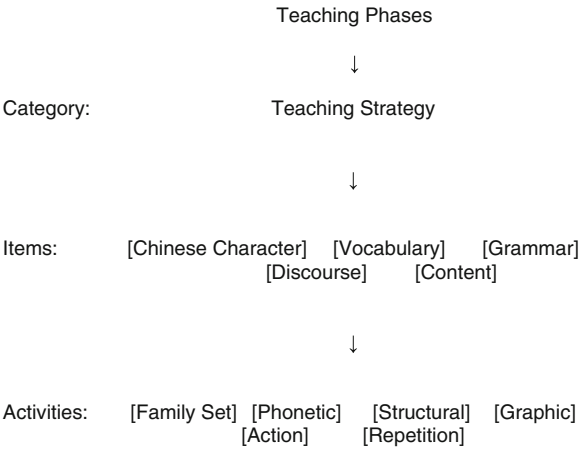

Fig. 16.1 Hierarchical Coding Example for SCPCS-V2: Phase – Category – Item – Activity

- 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.
Teachers' background			
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)	
Students' information			
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. Forexample, 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[1] 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)

	Modules	
Teaching/learning activities	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

[1] 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)

	Modules	
Learning skill focus	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)

	Modules	
Subcategories	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)

	Modules	
Usage frequency	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 disproportionally 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).

Acknowledgment This chapter refers to data from the research project "Effectiveness of the Chinese Modular Curriculum in Singapore Primary Schools: An Evaluation Study" (OER 52/08 ZSH), funded by the Education Research Funding Programme, National Institute of Education (NIE), Nanyang Technological University, Singapore. The views expressed in this paper are the authors' and do not necessarily represent the views of NIE. We thank the teachers and students in the participating schools for their generous support and the many full-time and part-time research assistants for their hard work.

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