Silk Road:
A Journal of Eurasian Development

RESEARCH

Trilingual Education in Hong Kong Secondary Schools: A Case Study

Lixun Wang

The Education University of Hong Kong, HK

lixun@eduhk.hk

Since 1997, the Hong Kong government adopted a 'biliterate and trilingual' language policy, aimed at developing biliterate (written Chinese and English) and trilingual (Cantonese, Putonghua and English) citizens. However, Hong Kong secondary schools did not have an agreed approach for this policy implementation, and the Medium of Instruction (MOI) arrangements have been controversial. In response, the government decided to fine-tune MOI arrangements for secondary schools in 2009, allowing them the flexibility to decide on appropriate MOI arrangements. This paper reports on a case study of the trilingual education approach of a Hong Kong secondary school after the introduction of the fine-tuning policy. Research methods employed include questionnaire surveys, interviews and analysis of recorded lessons. Research findings suggest that various factors need to be considered when adopting a trilingual education approach. First, students found it more appropriate to use Cantonese than Putonghua as the MOI for teaching Chinese Language, and the effectiveness of using Putonghua as the MOI (PMI) was questioned by Chinese Language subject teachers and the principal. Second, although some subjects such as Integrated Science and Mathematics were taught using English as the MOI, mixed code is prevalent in classroom teaching. Third, the importance of using the mother tongue in teaching is emphasised. It is hoped that this study will shed light on how trilingual education can be implemented effectively in secondary schools.

Introduction

Hong Kong is a multilingual society, approximately 95% ethnic Chinese, whose principal languages are Cantonese, English and Putonghua. Since the transfer of sovereignty over Hong Kong in 1997, the government of Hong Kong has adopted a 'biliterate and trilingual' language policy, which aims at developing biliterate (written Chinese and English) and trilingual (Cantonese, Putonghua and English) citizens (Wang & Kirkpatrick 2019). Linguistically, Cantonese is regularly viewed as a regional variety of Chinese and the mother tongue for most Chinese residents in Hong Kong. Putonghua, closely related to Modern Standard Chinese

(MSC), is the national spoken lingua franca of the People's Republic of China. Semantically, written Modern Standard Chinese is more or less the same everywhere in Mainland China, Hong Kong, Macau, Taiwan and other communities of the Chinese diaspora, although simplified Chinese characters are used in Mainland China, whereas traditional Chinese characters are used in Hong Kong, Macau and Taiwan. Cantonese and Putonghua are notably different from each other in lexis, syntax, pronunciation, phonology and grammar (Bauer 1988; Zhan 2002; Sze 2005; Poon 2010). While Putonghua and Cantonese are separately used as medium of instruction in the classroom for different subjects, all subjects taught either in Putonghua or Cantonese share the same writing script. Students, whether they speak and listen in Cantonese or Putonghua, learn a common vocabulary, and think and reason by shared syntactic rules to obtain knowledge.

When trying to make Hong Kong citizens biliterate in Chinese and English, some difficulties are encountered in the teaching and learning process of these languages. As English is an alphabetic language and Chinese a pictographic language, the writing scripts are totally different, which makes it a challenging task for teachers and students to grasp both systems at a high level. The phonetic systems are drastically different as well, as Chinese is a tone language which uses the pitch of a phoneme sound to differentiate word meaning, while in English pitch is mainly used to express emotion rather than to give a different word meaning to the sound. Learners are also required to build two sets of grammar and vocabulary, and to match translations when using mixed code in learning the two languages.

In this study, we report on a case study of how the 'biliterate and trilingual' language policy is implemented in a Hong Kong secondary school.

Literature Review
Hong Kong's Language Policies: From Bilingualism to Trilingualism
Chinese Schools and Anglo-Chinese Schools
Under British colonial rule, both Cantonese and English were used as the medium of instruction. However, Hong Kong schools had the liberty to choose their own medium of instruction (Ng and Lun 1984; Sweeting 1991; Luk 2000; Pan 2000; Poon, Lau & Chu 2013). Two linguistically and culturally distinct streams emerged in Hong Kong's educational system: a Cantonese-medium stream which was implemented in primary education, and an Anglo-Chinese stream which offered a Western-style primary and secondary education through the medium of English. Prior to the 1960s, Chinese schools enjoyed a more prestigious status, especially in primary education, despite the fact that Cantonese, the mother tongue, was the major MOI. During the period of expansion in the 1970s and 1980s, primary education was dominated by Cantonese, which was the language of tuition in every subject except English Language (Sweeting 1991; Kan, Lai, Kirkpatrick & Law 2011), while secondary education was dominated by English, which was supposed to be the MOI for all subjects except Chinese Language, Chinese History and Chinese Literature (Johnson 1998; Bray & Koo 2004). By the 1980s, 90% of primary schools were CMI (Pan 2000; Kan & Adamson 2010), while English-medium secondary schools had become increasingly dominant (Bolton 2011). More and more CMI schools had in fact been making considerable moves to change to EMI before 1997, and about 90% of secondary school students were receiving their schooling officially through the medium of English (Sweeting 1991).

However, the use of mixed code between English and Cantonese was a common phenomenon in secondary school education. Before 1997, many of the supposed EMI schools used mixed code (Pan 2000; Poon, Lau & Chu 2013). Chen (2005, p. 529) claims that 'Since then [...] the practice of Cantonese-English code-mixing has developed into a societal norm, despite the fact that mixed code is overtly and negatively criticised in society'. Although code-switching is considered a valuable communicative and pedagogic resource by teachers (Hirvela &

Law 1991), the Education Department of Hong Kong views code-mixing as 'the culprit for the perceived decline in English and Chinese standards of Hong Kong students in the past decade' (Li 1998: 161). In addition, the Education Commission (EC, Hong Kong's policy-making body) identified mixed-mode instruction as the principal cause of students' apparently unsatisfactory levels of English and Chinese (Education Commission 1990: 23). Ferguson (2003) points out that code-switching tends to be viewed much less sympathetically by policy makers, who often fail to appreciate the immense practical difficulties associated with teaching and learning in a second language.

Realizing the increasing use of mixed code in secondary schools, the Government has adopted measures to deal with this issue. The Education Commission (EC) Report No. 4 of November 1990 stipulated that 'the use of mixed-code in schools should be reduced in favour of the clear and consistent use in each class of Chinese or English in respect of teaching, textbooks and examinations' (Education Commission 1990: 99, 6.4.1 (iii)). Moreover, the EC, believing students can learn better in their mother tongue, stated that schools should '…encourage Cantonese-medium instruction, to minimise mixed-code teaching and to give schools the choice as to which medium of instruction they use' (Education Commission 1990: 103).

With the city's evolving socio-economic situation and the approach of 1997, Putonghua began to play a more important role in Hong Kong language policy, as the government considered that learning Putonghua could facilitate communication and economic exchange with the Mainland. After the handover in 1997, the Hong Kong government adopted the 'biliterate and trilingual' policy. This policy is intended to establish a 'biliterate and trilingual' society through the interplay between Cantonese, English and Putonghua. The aim of the policy is to train secondary school graduates to become proficient in writing English and Chinese and able to communicate confidently in Cantonese, English and Putonghua. Under this policy, both Chinese and English are acknowledged as official languages, with Cantonese being acknowledged as the *de facto* official spoken variety of Chinese in Hong Kong, while Putonghua is also accepted. Putonghua became a compulsory subject in all primary and secondary schools in 1998. Since then, Cantonese, the mother tongue, has been associated with enhancing student learning, and has taken the place of English as the regular and formal language in government and in the public sector. Putonghua has become a compulsory subject in the school curriculum, and also has a role to play in government, law and social activities. Yet, English has remained a powerful force and an active medium of communication in many sectors of Hong Kong society.

Mother Tongue Education

With the proclamation of the Sino-British Joint Declaration in 1984, there emerged major changes in language policy. The Hong Kong government made vigorous efforts to promote Cantonese-medium instruction, highlighting the importance of mother tongue education, and considered Cantonese and English could be equally effective as the MOI. The publication of the Education Commission Report Number Four (ECR 4) in 1990 built a 'coherent framework' to make language policy 'clear' by streaming students into English- or Cantonese-medium schools based on an assessment conducted in primary 6, while requiring schools to be consistent in their MOI and eliminate mixed-code teaching. The ECR 4 suggested that the majority of students would learn more effectively through their mother tongue than through English.

In 1997, the Education Department (ED) issued the policy guidance 'The Medium of Instruction Guidance for Secondary Schools', requiring all local public sector secondary schools, starting with the Secondary 1 intake of the 1998/99 school year, to use Cantonese as the basic MOI. Any school intending to adopt English as its MOI must provide sufficient information and justification to the ED to support such a choice. There had been significant

resistance to the policy from the public. Advocates of CMI reiterated their stance that mother tongue is the best medium of learning. Supporters of EMI emphasised its practical value: opportunities for advancement in terms of higher education and well-paid jobs. Social and community pressure for English-medium instruction had been immense and continued to increase (Poon 2013). The Education Department instituted a drastic policy change after taking into consideration the stakeholders' concerns, and announced in May 2009 that a fine-tuning of MOI policy would be put in place in September 2010 (Kan et al. 2011; Poon 2013).

The 'Fine-Tuning of MOI' Policy

Hong Kong's fine-tuned approach is an example of bottom-up, needs-driven change. Under the fine-tuning of MOI policy, secondary schools are no longer bifurcated into EMI and CMI schools, but are given the flexibility to adopt more diversified MOI teaching modes, including all CMI, CMI/EMI in different subjects, and total EMI immersion. There are three prescribed criteria for schools adopting English as the MOI:

- · students possessing the ability to learn through English;
- · teachers possessing the capability to teach through English; and
- · schools having adequate support strategies/measures

The fine-tuning policy offers individual schools greater autonomy to determine the MOI in specific subjects at junior secondary level (Evans 2013; Poon 2013). However, the new policy has created debate within the education community, 'with some CMI schools accusing the Government of backtracking from mother tongue teaching and creating potential chaos by having both EMI and CMI classes within the same school' (Kan et al. 2011: 3).

Based on a survey conducted by Kan, Lai, Kirkpatrick and Law (2011: 5), 36 out of 81 CMI schools (44%) reported they would remain using CMI after the fine-tuning policy, three (3.7%) would change to use EMI, 12 (14.8%) would use both EMI and CMI, and 30 (37%) would mainly use CMI, but some subject(s) would be taught using EMI. The reasons why EMI was adopted by some of the CMI schools are: to enhance the English learning environment of the students; to better meet parents' expectations; and to enhance the school's competitiveness.

The MOI Issue When Teaching Chinese Language

Since the change of sovereignty in 1997, Putonghua has been recommended as the MOI for teaching Chinese Language, resulting in numerous debates on the effectiveness of using Putonghua as a MOI (PMI). To many, Cantonese is a dialect when compared to Putonghua, which is the national language. The promotion of Putonghua in Hong Kong is seen as having both cultural-political value and economic-pragmatic value (Zhang & Yang 2004). The former is to boost the students' Chinese cultural-political identity and their loyalty to the People's Republic of China (PRC). On the other hand, learning Putonghua is considered a valuable career asset, a prerequisite for completely accessing the huge mainland market as well as mediating between it and international business (Chen 2012). The officials and advocates of using PMI to teach Chinese Language believe that it would, in general, enhance the students' Chinese competence, Chinese writing and Putonghua proficiency rather than Cantonese (Tam 2011). In addition, they think that a more extensive exposure to Putonghua would benefit the students' Chinese writing skills, as Putonghua is more consistent with Standard Modern Chinese (SMC). However, according to the Standing Committee on Language Education and Research (SCOLAR) (Tam 2011), there are no dependable findings regarding students' improved overall performance in Chinese Language due to the adoption of PMI. Meanwhile, the supporters of using CMI to teach the subject suggest that it would benefit students by assisting them

to learn more effectively through their mother tongue. Moreover, students' analytical skills would also be enhanced, since they would have the fluency to be more expressive in classroom discussions (Tse, Shum, Ki & Wong 2001). In a word, to the CMI supporters, mother tongue instruction can enhance students' motivation to study Chinese Language.

Code-Switching and Code-Mixing in Hong Kong Schools

To Wang and Kirkpatrick (2019), code-switching refers to the movement from one code to another during an interaction, whereas code-mixing signifies a mixture of two codes in the same utterance. In Hong Kong schools, code-switching and code-mixing occur between Cantonese and English and also between Cantonese and Putonghua. The government believes that code-mixing has resulted in a lower standard of English language proficiency (Li 2008), and has taken measures to ban mixed-code teaching. However, some researchers consider that mixed-code teaching could facilitate students' learning. Hirvela and Law (1991: 37) state that 'in certain forms and in the teaching of certain subjects, mixed code teaching might be the most effective means of instruction, hence making it "good"'. Ferguson (2003: 49) regards classroom code-switching as 'one potential resource for mitigating the difficulties experienced by pupils studying content subjects through a foreign language medium'. Li (2008: 75) claims that 'code-switching has great potential for helping the bilingual teacher to achieve context-specific teaching and learning goals like clarifying difficult concepts and reinforcing students' bilingual lexicon...'. Gauci and Camilleri-Grima (2013: 618) point out that code-switching could help in asking for clarification, acknowledging a question, providing further explanation, revising and establishing rapport in classroom teaching.

Information About the Case-Study School

In order to explore the trilingual education implemented in Hong Kong secondary schools after the introduction of the fine-tuning policy, a case study was carried out. The case-study school is a CMI secondary school established by a Christian organisation in 1962. Originally, all subjects except English Language were taught in Cantonese, but after the introduction of the 'fine-tuning of the medium of instruction' policy in 2010, English was adopted as the MOI in some non-language subjects such as Mathematics and Integrated Science at certain levels. The school started to use Putonghua as the MOI (PMI) in Chinese Language teaching in 2008, since then it has been offered to one group of students in each junior level (Secondary 1 (S1) – Secondary 3 (S3)). Students are given the chance to choose between CMI and PMI in the study of the subject in S1, and those who have chosen PMI need to take an assessment test on their language proficiency in Putonghua before being admitted to the PMI class. If students find it inappropriate to use PMI in the study of the subject, they can switch back to CMI classes when they are promoted to S2.

There were a few constraints in choosing an appropriate school for the case study. As seen from the above, choosing a CMI school for the case study was more appropriate than choosing an EMI school. The case-study school had switched from using Cantonese to using English in some subjects and at some levels after the fine-tuning policy. In addition, there is a limited number of secondary schools of Hong Kong (about 100) which have adopted Putonghua as the MOI for teaching Chinese Language. Finally, this school was one that was willing to participate in this study.

Methodology

The case study approach was adopted as it allows 'in-depth, multi-faceted explorations of complex issues in their real-life setting' (Crowe et al. 2011: 100) through interviews (to better understand the research subjects' opinions and behaviour etc.), questionnaires (to gather

information from respondents) and recordings (these can be viewed or listened to repeatedly in case of doubt during data analysis), which means both qualitative and quantitative research methods were employed. Qualitative data was collected through interviews with teaching staff and parents, focus group interviews with students, classroom discourse data analysis and teachers' reflections, while a student questionnaire survey was the source of the quantitative data. In the case study we interviewed eight teaching staff individually, these being the school principal, the vice-principal, the Chinese Language subject panel, the Chinese Language subject teacher who uses PMI to teach the subject, the Putonghua subject panel, the English Language subject panel, the Integrated Science subject panel and the Mathematics subject teacher. In addition, we observed and tape-recorded six 40-minute lessons as shown in **Table 1**. After class observations, the subject teachers had to fill in the teacher's 'Reflection Form', i.e., reflection-on-actions. This engaged them in reviewing, analysing and evaluating the situation, thereby also enhancing their professional growth (Schön 1987).

    S1 to S4 students of the case-study school were asked to fill in an 18-item questionnaire with five Likert scale categories (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree);126 copies of the questionnaire were collected. After the survey, eight students from S3 and S4 were invited to attend a focus group interview, which lasted for an hour, to collect the students' views on the trilingual education approach adopted in the school. Lastly, six parents (four local Hong-Kongers and two from the Mainland) were individually interviewed for about 15–20 minutes each. Cantonese was used when interviewing local parents and Putonghua was used for parents from the Mainland. The case study aimed to answer the following research questions:

- What were/are the school's language policies in different subjects before and after the 'fine-tuning of MOI' policy, and what were the rationales behind these policies?
- What are the perceptions of students, teachers, the principal and parents on using CMI/PMI in teaching Chinese Language?
- What is the role of code-switching/code-mixing in teaching and learning in the case-study school?
- What are the perceptions of different stakeholders on mother tongue education?

Data Analysis and Discussion
The School's Language Policies Before and After 'Fine-Tuning of MOI' Policy
Before the introduction of the 'fine-tuning of MOI' policy in 2010, almost all subjects except English Language were taught in Cantonese, although some of the Chinese Language subject classes were taught in Putonghua. After the introduction of the 'fine-tuning of the MOI' policy,

Table 1: Information about the class observations.

Subject	Level	MOI under school policy	MOI in the classroom
Chinese Language	S4	Cantonese	Cantonese
Chinese Language	S2	Putonghua	Putonghua
English Language	S2	English	English
Putonghua	S2	Putonghua	Putonghua
Integrated Science	S3	English	Mixed code (Cantonese & English)
Mathematics	S2	English	Mixed code (Cantonese & English)

the school started to use English as its MOI in Mathematics and Integrated Science (IS) to one group of students in S1–S3, but only for certain topics. English has been used as the MOI for Liberal Studies, Mathematics and Integrated Science and Computer for South Asian students in S1–S3 since the school year 2015–2016, as more and more South Asian students were enrolled in the school. Based on the interview data collected, the rationale for making such changes is that English skills are highly emphasised by parents and wider society, as most higher education institutions in Hong Kong use English as the major medium of instruction, and English is commonly used as a workplace language in all sectors in Hong Kong. As a result, the principal of the school decided to make these changes to meet the needs of students and parents, and the change of the MOI policy means that students will be exposed to English more when they study various subjects using English as the MOI. For the South Asian students, as English is often their mother tongue, according to the principal, the rationale for using English as the MOI is that they can benefit more through mother tongue education.

Stakeholders' Perceptions of Using CMI/PMI in Studying Chinese Language
Students
S1–S4 students in the case-study school were invited to complete the student questionnaire survey, and 126 completed questionnaires (N = 126) were collected. On the whole, the respondents in the school found that using Cantonese was more appropriate than using Putonghua to study Chinese Language (**Figure 1**). The students gave an average mean score of 3.63 to using CMI (Item 1: I find it appropriate to use Cantonese to study the Chinese Language subject) and a score of 3.31 to using PMI (Item 2: I find it appropriate to use Putonghua to study the Chinese Language subject). S1 students were most keen on using PMI to study the subject, as they gave the highest mean score of 3.67 to item 2 when compared with students in other levels. This might be due to the fact that some of them used PMI in the study of the subject in their primary schools, and some of them came from Mainland China. S2 students were most enthusiastic about using CMI to study the subject, as they gave the highest mean score of 3.91 to item 1 and the lowest mean score of 3.17 to item 2. Most S2 students agreed they found it appropriate to use Cantonese to study the subject, resulting in the smallest standard deviation of 0.79 in item 1 when compared with students in other levels. About 17% of S2 students found it inappropriate to use Putonghua to study the Chinese Language

	S1	S2	S3	S4	All
CMI	3.19	3.91	3.48	3.87	3.63
PMI	3.67	3.17	3.2	3.32	3.31
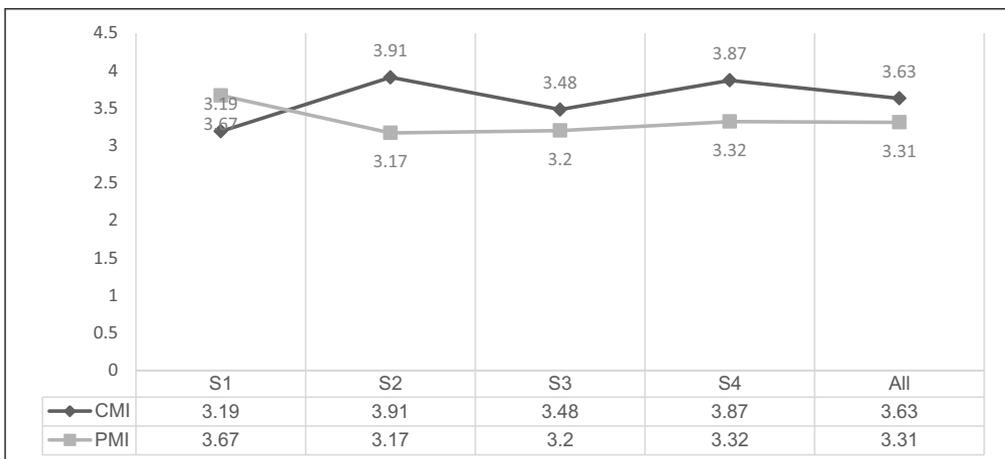
Figure 1: Students' perception of using CMI/PMI in the study of Chinese Language.

subject, resulting in the largest standard deviation of 1.59 in item 2 when compared with students in other levels. Like S2 students, S3 and S4 students found using Cantonese more appropriate than using Putonghua to study Chinese Language.

In the focus group interview there were four interviewees from S3 and another four from S4. Six of them preferred to use CMI to study Chinese Language, while two preferred to use PMI. The former thought they could learn the subject better when using Cantonese, their mother tongue. A local student said, 'Mother tongue helps with my comprehension of the content better.' A student who came from the Mainland said, 'I prefer using Cantonese because in Hong Kong we need to communicate in Cantonese. Also, I hope to speak fluent Cantonese.' Another student from the Mainland agreed: 'I also hope to enhance my language proficiency in Cantonese and so I wish to learn the Chinese Language subject in Cantonese.'

Parents

Six parents were interviewed individually. Compared with the students, the parents were more accepting of using PMI to study Chinese Language. Four of them supported using PMI, while two were resistant to this language policy. A parent who supported PMI said, 'Students can learn more languages if using PMI to study the Chinese Language subject, resulting in students having one more life skill.' Another added, 'Using PMI can enhance student writing skills in Chinese.' A parent who supported CMI said, 'Students can learn the knowledge better in mother tongue and the Putonghua language can be learnt in Putonghua lessons but not in the Chinese Language lessons.' Another parent who supported CMI added, 'I think using PMI might result in students' frustration in their learning, as Putonghua is not their mother tongue and they might not easily adapt to the use of PMI to study the subject.'

Principal and teachers

The language policy of using PMI to study Chinese Language was laid down by the previous principal in 2008, to attract more students from the Mainland. The present principal emphasised the effectiveness of the mother tongue in student learning. Therefore, he suggested that local students use CMI while students from the Mainland use PMI to study Chinese Language. The Chinese Language subject panel who used CMI to teach the subject doubted the effectiveness of using PMI to study it. One panel member said, 'I don't think using PMI can enhance students' language proficiency in Chinese. Take my daughters as examples, they used PMI to study the Chinese Language subject in school. But they found they could not express themselves accurately and freely in Putonghua, resulting in their low motivation in studying the subject.' The Chinese Language teacher who used PMI to teach the subject was neutral towards this policy, as using PMI to study it was a trend in Hong Kong, and it was the school policy to attract more students from the Mainland and to meet the demand of some parents. The Putonghua subject teacher, however, was not supportive of using PMI to study Chinese Language in secondary school. She said, 'Students can learn better and faster in [their] mother tongue. They will struggle if PMI is adopted. However, I think the curriculum is not so packed and the content is not so difficult in primary education, therefore using PMI at this stage can help students learn one more language.'

The stakeholders' views varied on which language should be used as the MOI in Chinese Language. Students found it more appropriate to use Cantonese rather than Putonghua, and the effectiveness of using Putonghua as the MOI to study the subject was doubted by the Chinese Language subject teachers and the principal. Parents were more open to using PMI to study Chinese Language, but the principal asserted that most parents welcomed the PMI policy because they did not understand the real situation that learning Putonghua as a second language is different from learning Chinese Language through the medium of Putonghua. The

parents considered that Putonghua is currently an important language in the world, and they would like their children to learn this new global language. As mentioned in the literature review, there are different views towards the use of CMI and PMI in studying Chinese Language (Tam 2011; Tse, Shum, Ki & Wong 2001). Whereas parents seem to favour PMI, believing that it will benefit their children's Putonghua learning, the students, teachers and the principal seem to favour CMI, believing that it will better facilitate students' Chinese Language learning, which is in line with the claims of some researchers (Tse, Shum, Ki & Wong, 2001).

Stakeholders' Acceptance of Code-Switching/-Mixing in Teaching and Learning
Students
We can tell from **Figure 2** that S4 students found switching from one language to another when studying different subjects most acceptable, as they gave the highest mean score of 3.84 to item 5 (I find it acceptable switching to switch from one language to another when studying different subjects in the school) when compared with students in other levels. However, S1 students did not share this view, as they gave the lowest mean score of 3.29 to the same item, which is below the average mean score of 3.69. S3 students found themselves code-switching/code-mixing between English and Cantonese most regularly during English Language classes, and between Cantonese and Putonghua during Chinese Language classes, as they gave the highest mean scores of 3.7 to item 6 (I find myself code-switching/code-mixing between English and Cantonese regularly during the study of the English Language subject) and 3.2 to item 7 (I find myself code-switching/code-mixing between Cantonese and Putonghua regularly during the study of the Chinese Language subject) respectively. However, it was S3 students who found code-switching/code-mixing in different subjects least useful for their language development in general, as they gave the lowest mean score of 3.43 to item 8 (I find code-switching/code-mixing in different subjects useful for my language development in general), which is below the average mean score of 3.58. S2 students found code-switching/code-mixing in different subjects most useful for their language development in general, as they gave the highest mean score of 3.83 to item 8. Overall, students found it acceptable to switch from one language to another when studying different subjects in the school (mean score of item 5 is 3.69). Many students found themselves code-switching/code-mixing between English and Cantonese regularly during English Language classes
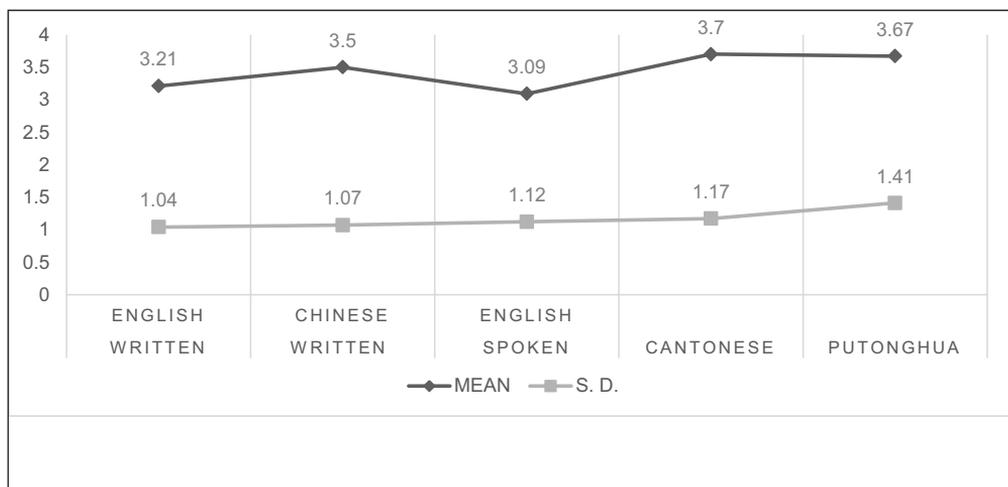
Figure 2: Students' perception of code-switching/code-mixing.

(mean score of item 6 is 3.51). Not many students found themselves code-switching/code-mixing between Cantonese and Putonghua regularly during Chinese Language classes (mean score of item 7 is 3.08). In general, students found code-switching/code-mixing in different subjects useful for their language development (mean score of item 8 is 3.58).

In the focus group interview, one student pointed out that she would code mix between Cantonese and Putonghua when communicating with her peers from the Mainland, as she did not have good language proficiency in Putonghua. The students agreed that the use of mixed code was a common phenomenon in English lessons:

> Teachers speak in Cantonese very often. They will use English once and use Cantonese to explain the content immediately.

> In our A1 group (using EMI), the teacher will answer us according to the language we use. For example, she answers in English if we ask in English, but answer in Cantonese if we ask in either Cantonese or Putonghua.

> Our teacher would not stop us discussing issues related to the teaching content in Cantonese or Putonghua. When asking her questions, we will switch back to English.

Students reported that the use of mixed code was not allowed in Putonghua lessons as the teachers were strict, and marks would be deducted if they spoke Cantonese in class.

Principal and teachers

The principal disapproved of the use of mixed code in language teaching. When he was an English Language subject teacher before being promoted to the present rank, he insisted on using 100% English, and he would use gestures and pictures to help students understand him. He also emphasised that students could learn a language better by listening more to that particular language. The teachers' 'Reflection Forms' show that language teachers did not support the use of mixed code in teaching. The Chinese Language subject teacher using CMI stated that she used 100% Cantonese in her teaching as she believed it enhances the effectiveness of her teaching, resulting in students' good understanding of the content. However, she would allow students from the Mainland to use Putonghua to answer her questions if they found it difficult to express themselves in Cantonese. The Chinese Language subject teacher using PMI and the Putonghua subject teacher stated that they used 100% Putonghua in teaching, as they insisted on providing students with a rich Putonghua learning environment to enhance students' writing skills in Chinese and facilitate their learning of the Putonghua language. From class observations, these three teachers did not code-switch or code-mix in their teaching. Just as the students said in the focus group interview, they were not allowed to use Cantonese in Putonghua lessons, and the Putonghua teacher stuck to her principle that no Cantonese was allowed, so as to provide students with a rich Putonghua-speaking environment in the classroom. In her Reflection Form, the English Language subject teacher stated that she used 99.9% English, as she wanted her students to be exposed to an English-speaking environment. In the observed class, she code-switched from English to Cantonese once to check if the students understood the requirement of the task in class.

> T: Do you understand? Do you know what to do? Ok, anyone want me to explain it in Cantonese? 老師使唔使用中文講解一次？ (*the teacher repeated what she said in Cantonese once again*).

Then one student answered her in Cantonese that he needed further explanations, resulting in the teacher's explanation in English once again. Also, she would allow students to use either Cantonese or Putonghua in group discussions, just as the students said in the focus group interview. In class observation, this English teacher repeated a student's answer in Cantonese and then in English after he had given the answer in Cantonese:

> T: Can you take the light rail if you want to go to Sham Shui Po? Do you know what Light Rail is?
> S: 輕鐵. (*Light Rail in Cantonese*)
> T: Yeah, Terry. Correct, 輕鐵. (*Light Rail in Cantonese*). Light rail operates in Tuen Mun, Yuen Long.

The non-language teachers (Mathematics and Integrated Science (IS) teachers) were more amenable to the use of mixed code in teaching. The school's language policy with respect to these subjects changed slightly under the 'Fine-tuning of Hong Kong's Medium of Instruction' Policy in 2010: EMI was used in certain topics of S1–S3 Mathematics and IS. In the observed Mathematics lesson, the teacher code-switched between English, Cantonese and a little bit, Putonghua, even though English is the MOI of the topic taught. She usually repeated abstract English expressions in Cantonese to make sure her students understood her teaching. For example:

> T: Here is the angle, the marked angle 角. And then opposite to this angle, is what we call opposite side 對邊. 對著依隻角, opposite to this marked angle, we call this side 'opposite side' 對邊, ok? So, what is this side called?
> S: 斜邊。
> T: Hypotenuse. 斜邊.Hypotenuse. Do you think, what is the relationship between the three lines? What is the longest, the longest? What is meant by the longest?

On the whole, this teacher used about 80% English, 19% Cantonese and 1% Putonghua in the lesson. She stated in her Reflection Form that the advantage of bilingual teaching is that students could understand her teaching better and would become more confident in learning the subject. Putonghua was used when there were misunderstandings about the learning materials, as many of the students came from the Mainland. In the IS lesson we observed, the teacher code-switched between English and Cantonese even though the MOI of the topic was English. The teacher wrote in his Reflection Form that he code-switched because his students' English proficiency was weak and he believed the use of mixed code could let the students know immediately the meaning of the English terms and enhance students' understanding of the content in an efficient way. For example:

> T: Ok. Ah, so first question: Do you separate your waste?
> S: What is waste separation?
> T: 垃圾分類. (*Explanation of waste separation in Cantonese*)
> S: Oh.

He sometimes used Cantonese to repeat his questions, and also encouraged his students to answer his questions in Cantonese to check students' understanding. For example:

> T: So, another question, what are the environmental problems associated with the landfills?　好喇，堆填區用黎'拋'棄垃圾，有咩問題？(*repeating the sentence in Cantonese*) What is the problem?

S: Chemical pollution.
T: Chemical pollution, just write pollution. Ok, and the others? 堆填區有咩問題？(*repeating the previous question in Cantonese*) You can answer me in Cantonese.
S: 要用很多地方. (*need to occupy more space*)
T: '啱呀，要用很多地方.係香港有d人呢做d抗議建堆填區，有冇諗過reasons? (Yes, it needs to occupy more space. However, some people in Hong Kong protest against building up the landfills, have you thought of the reasons why?)
S: 臭.
T: 臭，good.臭 嘅英文係咩呀？ (What is the English meaning of臭?)
S: Bad smell.

On the whole, the principal discouraged the teachers from using mixed code in teaching, as he believed 'one language at a time' could help students learn that particular language more effectively. However, he would allow the teachers to used mixed code in class when they deemed it necessary. The school's language policy did not allow the use of mixed code in teaching in theory. In practice, the language teachers, like the Putonghua subject teacher and the Chinese Language subject teacher who used Putonghua as the MOI, did follow the school's policy. However, the English Language subject teacher code-switched when she wanted to help students' understanding in completing the task. The non-language teachers did not strictly follow the school's policy, and they used mixed code to explain English terms in Cantonese and to help students' understanding of the content. They were more tolerant of the use of mixed code than the language teachers. The students agreed that code-switching/code mixing in different subjects was useful for their language development in general, supporting some researchers' opinions that code-switching or code-mixing is beneficial to student language learning (Ferguson 2003; Gauci & Camilleri-Grima 2013; Hirvela & Law 1991; Li 2008), as discussed in the literature review.

Stakeholders' Perceptions of the Mother -Tongue in Teaching and Learning

Students

Figures 3 and **4** show that the students in the case-study school were most happy with their progress in the study of Cantonese (Item 12: I am satisfied with my progress in the study of Cantonese.), with the highest mean score of 3.83 in items 9–13, and written Chinese (Item 10: I am satisfied with my progress in the study of written Chinese.), which had the third highest mean score of 3.51 in items 9–13. Although the students gave the second highest
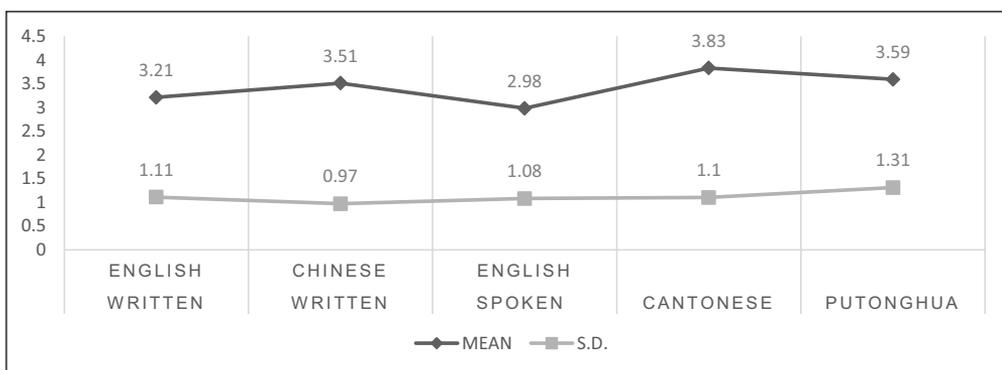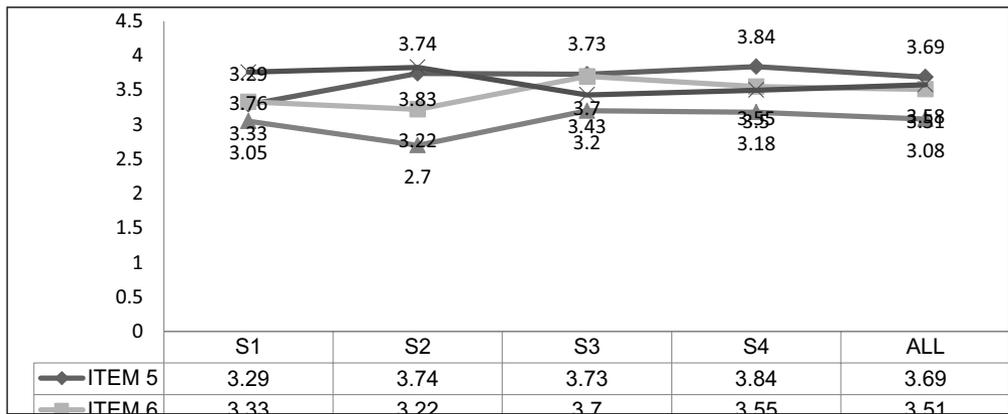

Figure 3: All students' perceptions of their progress in language learning.

Figure 4: The perceived language proficiency of all students.

mean score of 3.59 to their progress in the study of Putonghua, their opinions varied, as the standard deviation of item 13 (I am satisfied with my progress in the study of Putonghua) was the largest (1.31). About 15% of students were not happy with their progress in the study of Putonghua. Again, the students were most confident of achieving good proficiency in Cantonese (Item 17: I am confident that when I graduate I will achieve good proficiency in Cantonese), with the highest mean score of 3.70 among items 14–18, and written Chinese (Item 15: I am confident that when I graduate I will achieve good proficiency in written Chinese), which had the third highest mean score of 3.50 among items 14–18. Item 18 (I am confident that when I graduate I will achieve good proficiency in Putonghua) received the second highest mean score of 3.67 among items 14–18. However, its standard deviation was the largest (1.41), implying that the students varied in their confidence that when they graduated they would achieve good proficiency in Putonghua, and about 15% of them showed their disagreement.

The questionnaire survey data show that mother tongue education was accepted by the students, who felt that it would help them achieve good proficiency in Cantonese and written Chinese when they graduated. They were less satisfied with their learning progress in spoken English and written English, as they gave the lowest mean scores of 2.98 and 3.21 to item 11 (I am satisfied with my progress in the study of spoken English) and item 9 (I am satisfied with my progress in the study of written English) respectively. In addition, they were less confident in their ability to achieve good proficiency in spoken English and written English, as item 16 (I am confident that when I graduate I will achieve good proficiency in spoken English) and item 14 (I am confident that when I graduate I will achieve good proficiency in written English) received the lowest mean scores of 3.09 and 3.21 respectively. This may imply that mother tongue education most suits the students' learning needs. The student focus group interview triangulated the results of the student questionnaire survey, finding that 75% of students thought their mother tongue of Cantonese was their most effective language of study, as they could easily understand their teachers and the subject content.

Parents

Two out of six parents supported the use of Cantonese to study Chinese Language, as they believed students could learn best in their mother tongue. When asked whether they agreed to the school policy of using EMI in some topics in Mathematics and Integrated Science, only two of them disagreed. These parents insisted that students could learn better in their

mother tongue (Cantonese), and one of them said, 'Using EMI could put much pressure on those low achievers who could not understand their teachers.' The parents who advocated CMI believed that children's intellectual and educational development and creativity would be sacrificed if they learnt through a foreign language (c.f. Cheng 1979). The parents who supported the EMI policy agreed that the use of EMI in teaching could pave the way for their children's further studies in the university, and that students having good language proficiency in English could have better prospects in their future jobs. One of them said, 'Using EMI will provide better opportunities for students to further their studies in Hong Kong universities, and English is very important in many workforces.' Another parent supported the use of EMI for a different reason: 'I think using EMI is better as I studied Mathematics in English when I was in secondary school and I am afraid I can't do revision with my son if he studies the subject in Cantonese.' These parents are thus no different from the majority of parents in Hong Kong who favour EMI (see also Kan et al. 2011). Parents prefer EMI secondary schools and are reluctant to send their children to CMI schools (Pan 2000: 61). A major reason for this desire for an EMI secondary school is that six of the eight government-funded universities are entirely English medium, as are all of the private universities (Kirkpatrick 2014).

Principal and Teachers

The principal has a strong belief in the effectiveness of mother tongue learning. As mentioned before, he suggested that local students use Cantonese, while the Mainlanders use Putonghua to study Chinese Language. The Chinese Language subject panel and the Putonghua subject teacher favoured the use of Cantonese, the students' mother tongue, in the study of Chinese Language. Though the case-study school is a CMI school, the principal convinced the teachers that English should be the MOI in S1–S3 Mathematics, Liberal Studies, Computer Studies and IS, partly because more and more students from the South Asian countries are being recruited by the school, and English is the mother tongue of most of these students. Since the school year 2015–2016, English has been the MOI of the said subjects in S1–S3 for students coming from a South Asian country. In the school year 2017–2018, when the case study was conducted, the school had already planned to use English as the MOI in Mathematics, Liberal Studies and four elective subjects (from which the students can choose two) in S4 in the school year 2018–2019, after consulting parents and teachers. The four elective subjects using EMI are Biology; Chemistry; Business, Accounting & Financial Studies; and Information & Communication Technology.

It took time for the principal to convince the teachers and the school's Incorporated Management Committee (IMC), especially the former, to fine-tune the MOI policies, irrespective of the additional manpower and resources to be invested. This is because the teachers had become used to using the students' mother tongue (Cantonese) to teach different subjects since the 1990s. The teachers who were assigned to teach the related subjects in English needed to spend more time on preparing teaching materials and assessment tasks. The Biology subject panel chair who had been assigned to teach S4 Biology in the school year 2018–2019 said in an interview, 'Teaching S4 Biology next year is a new challenge to me as English has not been used as the MOI in the subject for some years and I will have heavy preparation workload. However, I am lucky that the school has promised to employ a teaching assistant (TA) to help me in preparation.'

In general, the teachers supported the school's language policy of using mother tongue in teaching and learning. The Biology subject panel member stated, 'I agree to this policy as the South Asian students are weak in Cantonese and using EMI can cater for their learning needs. Once we recruit these students, we need to take their learning needs into consideration.' The vice-principal shared this view.

The students, the principal and the teachers had a positive attitude towards the language policy of using mother tongue in teaching and learning: Cantonese is used as the MOI to study Chinese Language for local students, while Putonghua is used as the MOI for the Mainlanders. English is the MOI used to study other subjects for South Asian students. The parents' opinions varied. Though some of them supported using mother tongue in student learning, others supported using Putonghua to study Chinese Language and English to study some subjects like Mathematics and Integrated Science. Their view is that students' prospects at university and in the job market would be improved by their knowledge of Putonghua and English. All in all, the parents who supported EMI shared Poon's (2013) view that English provides students with opportunities for advancement in terms of higher education and well-paid jobs.

Conclusion

The case-study school's language policy is student-centred, meaning that the students' learning needs are taken into consideration. The three languages — Cantonese, English and Putonghua — have their own roles in student learning. Students found it more appropriate to use Cantonese rather than Putonghua as the MOI for studying Chinese Language, and the effectiveness of using Putonghua as the MOI was doubted by the Chinese Language subject teachers and the principal. Although some subjects such as Integrated Science and Mathematics were taught using English as the MOI, mixed code was prevalent in classroom teaching. The importance of using mother tongue in teaching was emphasised.

The case-study school, which used EMI in certain topics of S1–S3 Mathematics and Integrated Science after the introduction of the 'fine-tuning policy', had the same reasons as reported in Kan at el.'s 2011 survey — mentioned in the literature review: to enhance the English learning environment of the students; to better meet parents' expectations; and to enhance the school's competitiveness. Apart from this, the use of EMI for South Asian students in different subjects reflects the principal's strong belief in the effectiveness of mother tongue in student learning. The aim of this study has been to identify the gap between the policy makers (e.g. the government, principal) and other stakeholders (e.g. students, teachers, parents, etc.) regarding the implementation of trilingual education in Hong Kong secondary schools through a case study, and provide insights into how trilingual education can be implemented more effectively in Hong Kong based on different stakeholders' needs. It is hoped that this study may also be taken as a reference for multilingual education research in other contexts.

Competing Interests

The author has no competing interests to declare.

References

Bauer, Robert S. 1988. "Written Cantonese of Hong Kong." *Cahiers de Linguiste Asie Orientale*, 17: 245–93. DOI: https://doi.org/10.1163/19606028-90000305

Bolton, Kingsley. 2011. "Language Policy and Planning in Hong Kong: Colonial and Postcolonial Perspectives." In *Applied Linguistic Review 2*, edited by W. Li, 51–74. Berlin: De Gruyter Mouton. DOI: https://doi.org/10.1515/9783110239331.51

Bray, Mark, and Ramsey Koo. 2004. "Language and Education." In *Education and Society in Hong Kong and Macao: Comparative Perspectives on Continuity and Change*, edited by Mark Bray, and Ramsey Koo, 141–58. Hong Kong: Comparative Education Research Centre, The University of Hong Kong: Kluwer Academic Publishers. DOI: https://doi.org/10.1007/1-4020-4449-6_10

Chen, Katherine HY. 2005. "The Social Distinctiveness of Two Code-mixing Styles in Hong Kong." In *Proceedings of the 4th International Symposium on Bilingualism*, 527–41.

Chen, Lulu. 2012. "Putonghua Rises in Jobs Importance." *South China Morning Post*, 29 October. Retrieved from http://www.scmp.com/business/banking-finance/article/1071957/putonghua-rises-jobs-importance.

Cheng, Ngai Lung, ed. 1979. *Issues in Language of Instruction in Hong Kong*. Hong Kong: The Cosmos Book Company.

Crowe, Sarah, Kathrin Cresswell, Ann Robertson, Guro Huby, Anthony Avery, and Aziz Sheikh. 2011. "The Case Study Approach." *BMC Medical Research Methodology*, 11(1): 100–09. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3141799/pdf/1471-2288-11-100.pdf. DOI: https://doi.org/10.1186/1471-2288-11-100

Education Commission. 1990. *Education Commission Report Number Four*. Hong Kong: Government Printer.

Education Department. 1997. *Medium of Instruction Guidance for Secondary Schools*. Hong Kong: Government Printer.

Evans, Stephen. 2013. "The Long March to Biliteracy and Trilingualism: Language Policy in Hong Kong Education Since the Handover." *Annual Review of Applied Linguistics*, 33: 302–24. DOI: https://doi.org/10.1017/S0267190513000019

Ferguson, Gibson. 2003. "Classroom Code-Switching in Post-colonial Contexts: Functions, Attitudes and Policies." *AILA Review*, 16(1): 38–51. DOI: https://doi.org/10.1075/aila.16.05fer

Gauci, Hertian, and Antoinette Camilleri-Grima. 2013. "Code-switching as a Tool in Teaching Italian in Malta." *International Journal of Bilingual Education and Bilingualism*, 16(5): 615–31. DOI: https://doi.org/10.1080/13670050.2012.716817

Hirvela, Alan, and Eva Law. 1991. "A Survey of Local English Teachers' Attitudes towards English and ELT." *Institute of Language in Education Journal*, 8: 25–38.

Johnson, Robert Keith. 1998. "Language and Education in Hong Kong." In *Language in Hong Kong at Century's End*, edited by M.C. Pennington, 265–76. Hong Kong: Hong Kong University Press.

Kan, Vincent, and Bob Adamson. 2010. "Language Policies for Hong Kong Schools Since 1997." *London Review of Education*, 8(2): 167–76. DOI: https://doi.org/10.1080/14748460.2010.487336

Kan, Vincent, Kwok-Chan Lai, Andy Kirkpatrick, and Agnes Law. 2011. *Fine-Tuning Hong Kong's Medium of Instruction Policy*. Hong Kong: Strategic Planning Office and Research Centre into Language Education and Acquisition in Multilingual Societies, The Hong Kong Institute of Education.

Kirkpatrick, Andy. 2014. "The Language(s) of HE: EMI and/or ELF and/or Multilingualism?" *Asian Journal of Applied Linguistics*, 1(1): 4–15.

Li, David C. S. 1998. "The Plight of the Purist." In *Language in Hong Kong at Century's End*, edited by M. C. Pennington, 161–90. Hong Kong: Hong Kong University Press.

Luk, Bernard H. K. 2000. *A History of Education in Hong Kong. Report Submitted to Lord Wilson Heritage Trust*. Hong Kong: Photocopy.

Ng, Lun Ngai-ha and Nixia Wu Lun. 1984. *Interactions of East and West: Development of Public Education in Early Hong Kong*. Hong Kong: Chinese University Press.

Pan, Shiwen. 2000. "Hong Kong's Bilingual Past and Present." *Intercultural Communication Studies*, 1: 57–65.

Poon, Anita Y. K. 2010. "Language Use, and Language Policy and Planning in Hong Kong." *Current Issues in Language Planning*, 11(1): 1–66. DOI: https://doi.org/10.1080/14664201003682327

Poon, Anita Y. K. 2013. "Will the New Fine-tuning Medium-of-instruction Policy Alleviate the Threats of Dominance of English-medium Instruction in Hong Kong?" *Current Issues in Language Planning*, 14(1): 34–51. DOI: https://doi.org/10.1080/14664208.2013.791223

Poon, Anita Y. K., Connie M. Y Lau, and Dennis H. W. Chu. 2013. "Impact of the Fine-tuning Medium-of-instruction Policy on Learning: Some Preliminary Findings." *Literacy Information and Computer Education Journal*, 4(1): 946–54. DOI: https://doi.org/10.20533/licej.2040.2589.2013.0138

Schön, Donald A. 1987. *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions*. San Francisco: Jossey-Bass.

Sweeting, Anthony. 1991. "The Medium of Instruction in Hong Kong Schools." In *The Curriculum and Behaviour Problems in Schools: A Response to Education Commission Report No. 4*, edited by N. Crawford and E. K. P. Hui, 67–78. Education Paper No. 11, Hong Kong: Faculty of Education, The University of Hong Kong.

Sze, C. M. 2005. *Language Teaching and Research*. Beijing: Beijing University Press.

Tam, Angela Choi Fung. 2011. "Does the Switch of Medium of Instruction Facilitate the Language Learning of Students? A Case Study of Hong Kong from Teachers' Perspective." *Language and Education*, 25(5): 399–417. DOI: https://doi.org/10.1080/09500782.2011.573076

Tse, Shek Kam, Mark Shiu Kee Shum, Wing Wah Ki, and Caroline Pui Ching Wong. 2001. "The Transition from English to Mother-tongue Chinese as Medium of Instruction; Issues and Problems as Seen by Hong Kong Teachers." *L1-Educational Studies in Language and Literature*, 1(1): 9–36. DOI: https://doi.org/10.1023/A:1011512720278

Wang, Lixun, and Andy Kirkpatrick. 2019. *Trilingual Education in Hong Kong Primary Schools*. Springer International Publishing. DOI: https://doi.org/10.1007/978-3-030-11081-9

Zhan, B. H. 2002. *An Outline of Yue Dialects in Guangdong*. Guangzhou: Jinan University Press.

Zhang, Bennan, and Yang, Robin R. 2004. "Putonghua Education and Language Policy in Postcolonial Hong Kong." In *Language Policy in the People's Republic of China: Theory and Practice since 1949*, edited by, Minglang Zhou, and Hongkai Sun, 143–61. Dordrecht: Kluwer Academic Publishers. DOI: https://doi.org/10.1007/1-4020-8039-5_8