"Do not speak English during Mandarin lesson!" How many times have we chided our students for code-switching during language lessons? Is code-switching avoidable in a multilingual environment like Singapore? This study sheds some light on the phenomenon.

Is code-switching (CS) avoidable in a multilingual environment like Singapore? The answer, as many of us know, is "No".

Yet, instances of code-switching have been largely frowned upon as taboo in language classrooms. Many language teachers have devoted much energy in "enforcing" rules to forbid the use of other language codes in their classrooms and in extreme cases, penalties may even be threatened.

Excerpt 1: Sample of classroom conversations

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Conversational Turn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Teacher:</td>
<td>...... 俊齐，有去过俄罗斯啊？</td>
</tr>
<tr>
<td>Male Student:</td>
<td>真的。</td>
</tr>
<tr>
<td>Male Teacher:</td>
<td>... Junqi, (you) have been to Russia?</td>
</tr>
<tr>
<td>Male Student:</td>
<td>It is true.</td>
</tr>
<tr>
<td>Male Teacher:</td>
<td>真的？什么时候去的？</td>
</tr>
<tr>
<td>Male Student:</td>
<td>Really? When did you go (there)?</td>
</tr>
<tr>
<td>Male Teacher:</td>
<td>... When you were still a baby. What is &quot;small baby&quot;? What did I say just now? Do not speak in English during Chinese lesson. ...</td>
</tr>
<tr>
<td>Male Teacher:</td>
<td>你还是一个婴儿的时候。什么是small baby? 我刚才说什么？上华文课的时候，不要跟我讲英语。......</td>
</tr>
</tbody>
</table>

What we did

To shed some light on some of these questions, we studied the speech patterns of 18 children. This study is one of the few attempts aimed at describing the code-switching phenomenon among Singapore children when speaking Mandarin.

The data for this preliminary study was obtained from the Corpus of Singapore Preschoolers’ Mandarin Chinese, which consists of language data of 600 preschoolers (aged 5-6). The children were chosen based on the language they speak at home—predominantly English-speaking, predominantly Mandarin-speaking, and both English- and Mandarin-speaking.

We examined full transcripts of 30-minute interviews and picture-elicitation activities conducted with the children. Each transcript was annotated for frequency of code-switching, types of code-switching, and linguistic elements being switched.

How often do our children code-switch?

Of the 4,978 conversational turns produced by the children in our sample, 844 turns contained instances of code-switching. This amounts to a frequency of about 17.0% of the total child utterances in our data.
Children who came from predominantly Mandarin-speaking homes showed the lowest frequency of code-switching (5.8%), whereas children from both English- and Mandarin-speaking homes showed a higher frequency of code-switching (16.1%).

Children from predominantly English-speaking homes had the highest code-switching frequency (27.0%).

In general, all the children in our sample switched to English codes when speaking Mandarin, to varying degrees (ranging between a frequency of 2.1% and 41.5%).

**What types of code-switches do our children engage in?**

Code-switches can largely be divided into two types: intra-utterance and inter-utterance (Genesee et al., 2004; Poplack, 2000). In our study, intra-utterance CS refers to code-switches within an utterance in a conversational turn, whereas inter-utterance CS refers to code-switches beyond an utterance in a conversational turn or code-switches across two conversational turns (see Excerpts 2 and 3).

**Excerpt 2: Intra-utterance CS (about cartoon VCDs and DVDs)**

**Excerpt 3: Intra-utterance CS (about picture description of seaside)**

In our data, we noticed that most code-switches among children were intra-utterance CS (81.1% of total CS instances), while inter-utterance CS (18.9%) occurred much less frequently. When we compared the children across different language-speaking homes, the proportion of intra- and inter-utterance CS did not vary much. These results show that intra-utterance CS is more prominent in the spoken Mandarin of the children in our study.

To understand if there was any difference in the intra-utterance code-switches between children in our data, we further divided intra-utterance into alternation, insertion and congruent lexicalisation (Muysken, 1997).

In our study, alternation refers to code-switching to English phrases to complete a Mandarin utterance (see Excerpt 4); insertion refers to switching to an English word within a Mandarin utterance (see Excerpt 5); and congruent lexicalisation refers to the to-and-fro switching between English and Mandarin codes within an utterance (see Excerpt 6).

**Excerpt 4: Alternation (about pasar malam, the local night market)**

In our study, alternation refers to code-switching to English phrases to complete a Mandarin utterance (see Excerpt 4); insertion refers to switching to an English word within a Mandarin utterance (see Excerpt 5); and congruent lexicalisation refers to the to-and-fro switching between English and Mandarin codes within an utterance (see Excerpt 6).
Upon further analysis of the intra-utterance CS, we found that they were mostly insertions (93.2% of total CS instances). The other two types of intra-utterance CS were relatively rare (5.6% alternation; 1.3% congruent lexicalisation).

When we took home language into consideration, we found that children from Mandarin-speaking homes used only insertion, while children from English-speaking and both English- and Mandarin-speaking homes used some alternation and congruent lexicalisation. Hence, though all children in our study engaged in intra-utterance CS, there were differences among the sub-types of code-switching they employed.

Which linguistic elements are usually code-switched?
As to which linguistic elements (in terms of word class) were commonly code-switched, we found that most times, the children code-switched nouns (74.4% of CS utterances). Other commonly switched linguistic elements were conjunctions (12.6%) and verbs (8.6%). Elements that were rarely code-switched were adjectives (3.8%) and prepositions (0.6%).

When comparing children from different language-speaking homes, we found that children from all three home language types switched nouns and verbs to a certain extent; the main difference was seen in the switching of adjectives and conjunctions. Children from predominantly Mandarin-speaking homes switched more for adjectives, whereas children from predominantly English-speaking and both English- and Mandarin-speaking homes switched more for conjunctions.

Implications of these results
Based on the above findings, there are some implications that are noteworthy for language teachers:

1. Our findings on code-switching frequency show that code-switching occurs among children from all three home-language backgrounds. Thus, code-switching is more or less a "norm" among our children's speech since they are brought up in a multilingual environment. And as seen in our results, code-switching is not as frequent, which indicates that children do have some awareness of which language code to use when they are required to communicate in a particular language code.

   Therefore, language teachers need not be over-discriminating with regard to the use of alternate language codes. Instead, they can make use of such opportunities to guide and provide support to students on the suitable code-equivalents in the target language.

2. Our results on types of code-switching show that the children in our study mainly engaged in intra-utterance CS. Some researchers have claimed that this
type of code-switching requires higher language competence as the speaker needs to understand the grammatical rules that permit a particular intra-utterance code-switch.

Though we cannot substantiate this claim due to the limited data in this preliminary study, our results indicate that these children have grasped some basic rules of code-switching when speaking Mandarin. However, language teachers have to take note of students who persistently display alternation and congruent lexicalisation, as such students may need more support in the target language.

3. Our results on linguistic elements show that there is a general lack of content words (especially nouns) in the Mandarin lexicon of all children, and there is also an obvious lack in the use of conjoining words (conjunctions) among children from predominantly English-speaking and both English- and Mandarin-speaking homes.

Language teachers probably need to give these two groups of children more support in view of their higher CS frequency. They should also look into ways of expanding the children’s repertoire of nouns and verbs in Mandarin, with an emphasis on conjunctions for children from English-speaking homes and both English- and Mandarin-speaking homes.

4. Lastly, in the field of bilingual/multilingual studies, many researchers have highlighted code-switching as a communication strategy for bilinguals (Blom & Gumperz, 1972; Genesee et al., 2004). This strategy is used to complete communication and overcome a lack of linguistic elements. In our study, it is noteworthy that these children could take advantage of their other language resource (English) and fill in those linguistic gaps to complete the communication task. Teachers should hence be more understanding of code-switching among such students, and make positive and effective use of such instances to provide them with support.

> Click here to read about CRPP’s study of Chinese Singaporean Children’s Oral Competence in Mandarin

Notes
1. The following conventions are used in the classroom transcripts:

<table>
<thead>
<tr>
<th>Voices</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>()</td>
<td>Ungotten talk</td>
</tr>
<tr>
<td>##</td>
<td>Background noise</td>
</tr>
<tr>
<td>.</td>
<td>Gap</td>
</tr>
<tr>
<td>..</td>
<td>Extended gap</td>
</tr>
<tr>
<td>:</td>
<td>Prolongation</td>
</tr>
<tr>
<td>=</td>
<td>Latching</td>
</tr>
</tbody>
</table>

2. This corpus comprises samples of authentic Mandarin Chinese utterances of 1,000 boys and girls, aged 5 and 6, from 36 childcare centres and kindergartens in Singapore. There are about 300 hrs of audio recordings of elicited talk, and 12 hrs of video recordings of classroom activities. The oral production of 600 participants has been orthographically transcribed and part-of-speech (POS) tagged. For more details, see http://score.crpp.nie.edu.sg/

References


**About the authors**
Goh Hock Huan and Zhao Chunsheng are Research Associates at the Centre for Research on Pedagogy and Practice (CRPP), National Institute of Education. Liu Yongbing was an Assistant Professor with CRPP; he continues to be a consultant on this project.

Published by SingTeach, October 2007