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Nesi, H & Tang, E

Original citation & hyperlink:
Nesi, H & Tang, E 2003, 'Teaching vocabulary in two Chinese classrooms: School children's exposure to English words in Hong Kong and Guangzhou' *Language Teaching Research*, vol 7, no. 1, pp. 65-97
https://dx.doi.org/10.1191/1362168803lr113oa

DOI 10.1191/1362168803lr113oa
ISSN 1362-1688
ESSN 1477-0954

Publisher: Sage

Teaching vocabulary in two Chinese classrooms: school children's exposure to English words in Hong Kong and Guangzhou

2003 *Language Teaching Research* 7 (1) 65-97

Eunice Tang, City University of Hong Kong
Hilary Nesi, CELTE, University of Warwick, CV4 7AL

Abstract
In this paper the lexical environment of secondary school English language classrooms in Hong Kong and Guangzhou are compared. Teacher output for one week of first form lessons was recorded in two representative schools. Lexical richness in terms of type-token ratio and word type frequency was measured, the words that were explicitly taught were identified and categorized according to whether the teaching was planned or unplanned, and the teaching treatments accorded to these words were examined. The lexical richness of teacher output was found to be greater in the Hong Kong classroom than in the Guangzhou classroom. In the Guangzhou classroom a larger number of words were explicitly taught, but learners were exposed to far fewer word types for incidental acquisition. In both classrooms, more unplanned than planned words were explicitly taught. Teachers tended to teach planned words through multiple treatments, with various kinds of input, both modified and unmodified, in different stages of the lesson. They provided almost no opportunities, however, for modified (negotiated) output on the part of the learners, despite the fact that the syllabuses in both Hong Kong and Guangzhou are described as "communicative".

Introduction

This paper examines the lexical environment of two Chinese English language classrooms, in Hong Kong and Guangzhou. It measures the richness, in terms of frequency and variety, of oral vocabulary input and output in the two environments, and explores the methods by which new words are explicitly taught, and the opportunities each classroom provides for implicit vocabulary acquisition through incidental exposure to new words. In particular, we are interested in comparing and contrasting approaches to the teaching and learning of vocabulary in the two Chinese environments, and discussing some of the reasons for the similarities and differences that we find.

Guangzhou is close to Hong Kong and exchange and communication between the two provinces is frequent and easy. Educationally, they have much in common. The setting for English language learning is similar: in Guangzhou the average class size is about 45, whereas in Hong Kong it is about 40, and in both provinces the children sit in rows, facing the teacher and the blackboard. Attitudes to teaching and learning are typically Chinese, as described by Watkins and Biggs (1996). Pupils tend to be diligent, submissive and passive; they obey instructions, learn by rote and seldom ask questions. The teachers, in contrast, are dominant and authoritative, and lessons are usually teacher-oriented. Examinations and other forms of assessment, regarded as crucially important for advancement and future employment prospects, have a heavy washback effect on teaching methods and lesson content.

In some respects, however, the learning experience of children in the two provinces differs. Hong Kong children start to learn English at the age of six or younger. Although many Guangzhou schools offer English from primary 4 (age 9) or even from primary 1 (age 6), formal instruction in Guangzhou does not begin officially until junior secondary level (age 12). In Hong Kong, a quarter of all schools uses English as the medium of instruction, and children have easy access to English medium films, newspapers, videos and television programmes outside school. English words also regularly find their way into Chinese/Cantonese-medium newspapers, magazines, advertisements and songs. Guangzhou children, on the other hand, have extremely limited exposure to spoken or written English outside the classroom.

Guangzhou also appears to be far more rigid than Hong Kong in its approach to English language teaching. Although both provinces have adopted communicative syllabuses, the implementation of these syllabuses differs markedly. In Hong Kong the current secondary school syllabus was first introduced in 1983, and allows teachers considerable freedom to

choose their own materials and teaching style, merely providing them with guidelines for time allocation, skills focus, and the use of teaching aids. Schools can choose their own textbooks, and, once they have agreed with their colleagues on a general scheme of work for the year, Hong Kong teachers tend to plan their own lessons on an individual basis. Vocabulary development is regarded as part of the process of language skills development, and the syllabus does not specify a list of words to be taught.

Guangzhou, on the other hand, follows the Chinese syllabuses for junior and senior secondary schools, introduced in 1992. These syllabuses stipulate the words and grammar items to be taught at each stage in the school year (listing 614 words for juniors, and 1,929 for seniors), and are instrumental in creating a "traditional instruction environment" where language knowledge tends to be conveyed and assessed as a series of discreet items (Lightbown and Spada 1993:70). In order to interpret and operationalize the syllabuses most teachers depend heavily on their school textbooks and accompanying teacher's books, the most widely used of which are *Junior English for China* (Books 1-3) and *Senior English for China* (Books 4-6), published and distributed by the People's Education Press (Ng and Tang 1997). Teachers tend to get together to standardize their lesson plans so that the same year group can follow the same learning schedule, with similar procedures, activities and teaching methods. The approved teaching methods are demonstrated to teachers from time to time in public showcase lessons, organized by the Provincial Education Commission.

This account of the circumstances of English language teaching in Guangzhou and Hong Kong suggests that Guangzhou teachers may be inclined to take a more explicit approach to vocabulary teaching than their Hong Kong colleagues, with a greater focus on specified word forms. Proponents of the communicative approach generally favour implicit vocabulary

acquisition, because explicit teaching occurs in very limited contexts and does not usually provide learners with sufficient information about the communicative appropriacy of words. Ellis (1994), for example, argues that native-like vocabulary knowledge can only be acquired incidentally, and points out that first language vocabulary is acquired during childhood almost wholly by incidental means. Hulstijn (1992) similarly argues that learners cannot acquire a large, native-like lexicon by explicit learning methods, on the grounds that opportunities for explicit teaching are too few: "no matter how effective their memorization or practice strategies are, [language learners] simply do not have time to learn that amount of vocabulary intentionally". However, although explicit vocabulary learning is demanding of formal lesson time, the process of implicit vocabulary learning requires abundant opportunities for less formal exposure to the language. Studies have demonstrated that new words can be acquired incidentally whilst reading, for example (Li 1988, Hulstijn 1992, Dulay and Krashen 1993), but this is not very encouraging information for teachers and learners in Guangzhou, an "input poor" environment (Kouraogo 1993) where children do not have ready access to any English text other than their course book, and receive almost all their vocabulary input orally during scheduled lesson periods.

The effects of different methods of explicitly teaching new vocabulary as oral input have been explored in series of experiments by Ellis and his co-researchers (Ellis, Tanaka and Yamazaki 1995, Ellis 1995, Ellis and He 1999). These experiments test three types of hypothesis in terms of vocabulary learning: the input hypothesis (Krashen 1985, 1994) (the belief that language is acquired through exposure to linguistic forms slightly in advance of the learner's existing knowledge), the interaction hypothesis (Long 1981) (the belief that language is acquired through negotiated requests for clarification and confirmation), and the "comprehensible output"

hypothesis (Swain 1985, 1995) (the belief that precise, coherent and appropriate language produced by the learners themselves acts with comprehensible input to enable acquisition).

Ellis' experimental design was based on the work of Pica, Young and Doughty (1987) who originally found that the learners exposed to "premodified input" (the teachers' prepared explanations) were less successful at completing a task than learners with the opportunity to receive "interactionally adjusted input" (explanations provided at the individual's request, as the need arose). Ellis and his co-researchers (1995) isolated four experimental conditions under which their subjects had to complete a language task: "unmodified input" (UMI), where new words were introduced orally without any explanation of their meaning and use, "premodified input" (PMI) where the researcher explained and repeated new words, "interactionally modified input" (IMI), where subjects could ask the researcher to clarify meaning and repeat words, and (in Ellis and He 1999) "modified (or negotiated) output" (MO), where subjects worked in pairs, negotiating word meaning between themselves.

In these experiments the UMI group, which acted as a control, were the least successful learners, whilst the IMI group acquired more words than the PMI group, at least in the short term. The output condition (MO) proved most favourable of all for vocabulary acquisition, leading Ellis and He to conclude that "dialogically symmetrical discourse seems to create better conditions for incidental vocabulary acquisition than interaction in teacher-controlled exchanges" (1999: 299).

These findings do not reflect, however, the efficiency of the different vocabulary teaching treatments in terms of the number of words acquired per minute of input. As Ellis (1995: 424) points out "although interaction led to more words being acquired, it also resulted in a

conspicuously slower rate of acquisition". In Ellis, Tanaka and Yamazaki's experiment, for example (1995) the two premodified input groups took ten and twenty minutes to complete the task, whilst the two interactionally modified input groups both took forty-five minutes each. The time variable was controlled in the experiment involving modified output (Ellis and He 1999) and all three treatments were made to last exactly forty-five minutes, but this entailed repeating directions in the two input conditions - something that might not occur in the normal teacher-led classroom.

It is our purpose in this paper to describe the processes of vocabulary teaching under non-experimental conditions, to see what kinds of oral input and output are available in normal Chinese classrooms. We are concerned with the teachers' role in the process of vocabulary acquisition, which in the lessons we observed involved speaking rather than writing. (Written classroom input came entirely from the class textbooks, and for this reason is not reproduced, described or analysed in this paper.) We set out to answer three research questions:

1. How lexically rich are the lessons?
2. How many of the words occurring in the discourse of the classroom are explicitly taught to the learners, and how many are simply available for incidental acquisition?
3. What kind of treatment is given to words explicitly taught in the lessons?

In the process of answering each of these questions, data from Hong Kong and Guangzhou were compared.

Procedure

Two English teachers – one from Guangzhou and one from Hong Kong - were invited to take part in the study. They shared a similar educational background and were teaching the same level of students in a similar type of school (see Table 1). The study did not involve any other school personnel, and thus avoided any possible pressure from the administrators to over-prepare in order to create an impressive outcome. This is sometimes the case in the Chinese context, where the reputation of the school and the face of the administrators and the teachers are deemed so important that showcase lessons are arranged.

Table 1: Teachers' profiles

	T1 (Guangzhou)	**T2 (HK)**
Sex	Female	Male
Class	Junior secondary 1	Form 1
Class size	45	40
Students	Aged 12, boys and girls	Aged 12, boys and girls
Teaching experience	5 years	2 years
Levels taught	Junior 1 – 3	Forms 1, 2 and 4
Qualifications	Teacher' College (English major)	BA (Hons.) in TESL and Teacher Certificate

Both schools were considered amongst the best in their locality. The Guangzhou school had been designated a "key school" and was highly regarded for its teaching quality, extra-curricular activities and the level of student achievement. Similarly the school where our Hong Kong data were recorded was in the top band (out of five) for the general academic performance of its pupils.

All English lessons the teachers had with the specified classes were audio-recorded for a full week, and these recordings were transcribed (see Table 2). The teachers were asked before each lesson to list the words that they intended to teach, and at the end of the week they were

interviewed separately to investigate their views on vocabulary teaching and vocabulary teaching methods.

Table 2: Descriptions of the recorded lessons

	Teacher 1 (Guangzhou)	**Teacher 2 (HK)**
Lessons	4 single	4 double and 1 single
Duration of each lesson	60 minutes / single	35 minutes / single
Total recording time	240 minutes	315 minutes
Types of lesson during the week	▪ General English	▪ Composition corrections ▪ Listening ▪ Reading ▪ General English ▪ Revision

Each lesson transcript was analysed using the measure of lexical variation (LV) adopted by Meara, Lightbown and Halter (1997) and Brown, Sagers and LaPorte (1999) to assess the lexical richness of teacher talk. LV is the type-token ratio, and was chosen as an indicator of lexical richness because the calculation is straightforward, although it requires a clear definition of the terms "type" and "token":

$$LV = \frac{\text{no. of types} \times 100}{\text{no. of tokens}}$$

In this study, 'types' were defined as all the different words in the corpus, and 'tokens' as the total number of running words. 'Type' was taken to include both the base form and all its derivations, despite any differences in orthography and pronunciation. Because the validity of the LV measure can be affected by differences in text length (Richards 1985; Laufer and Nation 1995), the slight difference in sample size in this study were taken into account when interpreting LV scores.

The LV ratio alone does not give a full picture of lexical richness, however, as this requires additional consideration of word type frequency levels. Following Meara, Lightbown and Halter (1997), we therefore matched wordlists derived from each lesson transcript against frequency lists available in the computer program *VocabProfile* (VP) (Nation 1986). The first of these lists (VP1) includes the most frequent 1,000 words of English; the second (VP2) includes the second 1,000 most frequent words, and the third (VP3) includes words not in the first 2,000 words of English, but frequent in upper secondary school and university texts from a wide range of subjects. All three lists include the base forms of words and derived forms. In this study, contractions such as "I'm", "it's" and "she's" were added to VP1 together with proper names, and expressions commonly produced by Chinese speakers, such as "yeh", "la", and "ah".

A further stage of data analysis involved identifying those words which were singled out in the lessons for explicit teaching, and the teaching methods that were used for this purpose. The words to be taught were identified with reference to lesson transcripts and the lists prepared by the teachers prior to each lesson. Teaching methods were categorized according to the types of input and output that occurred: unmodified, premodified, and interactionally modified. Interview data was used to shed light on the teachers' choices of words to teach, and of teaching methods.

Findings and discussion

Lexical richness

English teaching in Guangzhou was presented in thematic units, each consisting of four lessons. Each lesson presented some new language items, i.e. vocabulary, grammar, or pronunciation, and was clearly structured following the advice given in the teacher's book, with four distinct stages: review, presentation, drills, and consolidation activities.

Table 3 summarizes the Lexical Variation ratio in the four lessons recorded in Guangzhou. Variation decreased gradually after the first lesson, during which most of the planned vocabulary items were taught. Since all four lessons belonged to the same thematic unit, not many new words arose during the presentation and practice of other language items. The last lesson of the week, Lesson 4, had the least tokens but a comparatively high LV ratio, because the learners did a substitution drill, listened to a pronunciation tape and practised pronouncing minimal pairs. There was therefore greater output from the students than there had been in earlier lessons, and although the number of tokens from oral input was low, a wider range of topic-unrelated words were produced.

Table 3: Lexical Variation (Lessons in Guangzhou)

	Tokens	**Types**	**LV**
Lesson 1	2,341	327	30.45%
Lesson 2	2,347	292	28.40%
Lesson 3	2,109	266	27.10%
Lesson 4	1,478	252	29.70%
Overall	**8,275**	**523**	**28.80%**

The lessons in Hong Kong were skill-based. There was no apparent division of lessons into stages (review, presentation, drills, and consolidation) in the way we had observed in Guangzhou. Each lesson was designed to practise different language skills, and used different textbooks. (The final lesson of the week was atypical because it was a revision lesson, and such lessons are only scheduled when a teacher wants to prepare students before an examination.) Table 4 summarizes the Lexical Variation ratio in the five lessons recorded in Hong Kong, and shows that the lesson with the highest LV ratio focussed on reading - this was the only lesson in which the teacher had planned to teach new words. In this lesson the new words were taught as planned, but students raised questions about other unknown words in the text, resulting in a greater amount of oral input.

The listening lesson had the highest numbers of tokens and types. In this lesson students listened to audio taped dialogues, instructions and stories to complete exercises in their listening book. Since the exercises were not built around a theme, a wide range of contexts and words was presented. The lexical variation ratio was lower than might be expected, however, because the tape was played twice.

Table 4: Lexical Variation (Lessons in Hong Kong)

	Tokens	**Types**	**LV**
Composition correction	2,155	402	37.10%
General English	1,678	355	36.27%
Listening	3,747	533	36.87%
Reading	2,942	512	39.48%
Revision (single lesson)	2,023	444	38.25%
Overall	**12,545**	**1,111**	**37.67%**

Lexical variation ratios were higher in Hong Kong (37.67%) than in Guangzhou (28.80%). Although the recording time was slightly shorter in Guangzhou, and considerably more running words were recorded in Hong Kong, this variation in sample size does not satisfactorily account for the differences in LV ratio, because these differences are also apparent when lessons with similar numbers of running words are compared (for example Lesson 3 in Guangzhou and the composition correction lesson in Hong Kong). This finding suggests that the Hong Kong classroom is lexically richer than the Guangzhou classroom, a conclusion supported by our findings concerning the frequency level of words occurring in the two environments, as summarised in Tables 5 and 6.

Table 5: Word Frequency Levels in Guangzhou (240 minutes)

Frequency levels	**Number of words**	**Percentage**
VP1	421	80.50%
VP2	67	12.81%
VP3	5	0.96%
Sub-total	**493**	**94.26%**
Beyond VP3	30	5.74%
Total	**523**	**100%**

Table 6: Word Frequency Levels in Hong Kong (315 minutes)

Frequency levels	**Number of words**	**Percentage**
VP1	755	67.87%
VP2	188	16.92%
VP3	36	3.33%
Sub-total	**979**	**88.12%**
Beyond VP3	132	11.88%
Total	**1111**	**100%**

As can be seen from the tables, many more lower frequency words were used in the Hong Kong classroom than the Guangzhou classroom, although this does not automatically mean that Guangzhou pupils found their lessons easier, and Hong Kong learners found their lessons harder. It is likely that learners in Guangzhou had smaller vocabularies and a generally lower level of language proficiency, as a result of the fact that on the whole they had received fewer years of language instruction, and far less exposure to English-medium text.

The frequency level of words varied in both environments from lesson to lesson. Lessons 1 and 2 in the Guangzhou classroom contained the largest number of less frequent words, because it was in these lessons that the teacher presented the new language items for the week (Table 7). In the Hong Kong classroom, the listening lesson provided the richest lexical environment with a relatively higher proportion of words drawn from different frequency ranges (Table 8). In this particular lesson, the teacher's speech was not the sole oral input, but was supplemented by audio recordings.

Table 7: Percentages of words by frequency level and lesson in Guangzhou

	VP1		VP2		VP3		Beyond VP3		Total	
	No	%	No	%	No	%	No	%	No	%
Lesson 1	289	88.38	25	7.65	2	0.61	11	3.36	327	100
Lesson 2	261	89.38	19	6.51	3	1.03	9	3.08	292	100
Lesson 3	238	89.47	15	5.64	0	0	13	4.89	266	100
Lesson 4	203	80.56	33	13.10	0	0	16	6.35	252	100
Overall	**421**	**80.50**	**67**	**12.81**	**5**	**0.96**	**30**	**5.74**	**523**	**100**

Table 8: Percentages of words by frequency level and lesson in Hong Kong

	VP1		VP2		VP3		Beyond VP3		Total	
	No	%	No	%	No	%	No	%	No	%
Composition correction	327	81.34	36	8.96	9	2.24	30	7.46	402	100
General English	290	81.69	38	10.70	3	0.85	24	6.76	355	100
Listening	407	76.36	71	13.32	19	3.57	36	6.75	533	100
Reading	397	77.54	58	11.33	9	1.76	48	9.38	512	100
Revision	341	76.80	63	14.19	8	1.80	32	7.21	444	100
Overall	**755**	**67.87**	**188**	**16.92**	**36**	**3.33**	**132**	**11.88**	**1,111**	**100**

The five VP3 level words in the Guangzhou classroom and the thirty-three VP3 level words in the Hong Kong classroom were primarily words relating to classroom activities (see Appendices 1a and 1b). In the Hong Kong classroom many of these words occurred during teacher-student interaction (e.g. *, classroom, flush, forgetful, handsome, naughty, overflow, toilet, wallet*, etc.), suggesting that certain types of interaction stimulate or encourage the production of 'high-level' words.

Beyond VP3 level words tended to be culture or classroom specific (see Appendices 2a and 2b). For example *Chinese, Lunar [New Year]*, *noodles* and *wonton* occur with high frequency in the Chinese context, while *homework, recite, tick,* and *underline* are commonly used in a typical Chinese classroom. Word lists for the Chinese English syllabuses are compiled by referring to

other word lists available in the western world, but it appears that Chinese learners need to know additional words which do not have a high frequency outside the classroom, or outside China.

Explicit vocabulary teaching and incidental acquisition

Before each lesson both teachers listed the words that they planned and prepared to teach (see Appendix 3). Like most teachers in China, the teacher in Guangzhou listed the words pre-selected in the teacher's book. The Hong Kong teacher, on the other hand, selected the words to be taught in the light of what he felt to be his students' needs. He planned to teach vocabulary explicitly only in the reading lesson. The numbers of words that students were exposed to through explicit teaching and incidentally are given in Table 9.

Table 9: The proportion of words for intensive and extensive exposure in the two classrooms

	Guangzhou	**Hong Kong**
No. of words planned to be taught	18 (3.44%)	6 (0.54%)
No. of words unplanned but explicitly treated	46 (8.8%)	25 (2.25%)
Total number of explicitly taught words	**64 (12.24%)**	**31 (2.79%)**
No. of words types in oral output available for incidental acquisition	459 (87.76%)	1,080 (97.21%)
Total number of word types in the week	**523 (100%)**	**1,111 (100%)**

The Guangzhou classroom provided more explicit teaching of both planned and unplanned words. A total of 12.24% words in the week were taught explicitly to the students. In the Hong Kong classroom, the percentage was much lower (2.79%). Interestingly, more unplanned words than planned were taught in both classrooms; more than twice as many in Guangzhou, and more than four times as many in Hong Kong. Most of the unplanned words occurred in texts used for reading practice, but in the Guangzhou classroom one word, *meeting,* was taught because a student introduced it in the lesson, and in the Hong Kong classroom, *EPA* (Economic and Public Affairs), *butcher*, and *beggar*, were introduced by the teacher while explaining other unplanned words.

The lower percentage of explicit vocabulary teaching in the Hong Kong classroom suggests that there may have been more opportunity for incidental vocabulary acquisition in Hong Kong. We are fully aware, however, that incidental acquisition is not an automatic process, and depends on the presence of many factors such as frequency, saliency, and the availability of contextual clues (see Ellis 1994).

Both in cases where the teaching was planned in advance and in cases where it was unplanned, the two teachers chose a number of different methods to teach new words. In examining their vocabulary teaching methods we referred to the categorizations described in Ellis's studies (Ellis 1995, Ellis et al. 1995, Ellis and He 1999), with the addition of an extra category to reflect vocabulary teaching methods tied to substitution drills and spelling practice. These drill and practice treatments were categorized as "unmodified output" (UMO) to indicate the fact that there was no modification from the teacher. We categorized all treatments of explicitly taught words in the data as planned or unplanned, and as "unmodified input" (UMI), "unmodified output" (UMO), "modified output" (MO), "premodified input" (PMI) or "interactionally modified input" (IMI).

The teaching of planned words

In teaching the planned words, both teachers made most use of UMI and IMI, but differed in their use of PMI, UMO and MO (see Table 10 and Appendices 4a and 4b).

Table 10: Percentages of the input/output treatment of planned words in the two classrooms

	UMI	**PMI**	**IMI**	**UMO**	**MO**
Guangzhou	100	100	83.3	100	66.7
Hong Kong	100	83.3	100	0	0

In Ellis's studies, UMI is the treatment where teachers input new words without any verbal indication of their meaning and use. In our study, UMI was used in pronunciation drills. The teaching of sound was provided as one type of verbal input. Both teachers practised the pronunciation of new words with their students, and reported that they believed that accurate pronunciation was as important as knowledge of word meaning. Both teachers conducted pronunciation drills on all the planned words and thus 100% of UMI was observed. Pronunciation practice seems to be a common method in the two Chinese classrooms. In Guangzhou, UMI pronunciation practice usually marked the end of a series of treatments, whereas in Hong Kong it was frequently followed by PMI or IMI treatments.

Example 1. PMI and UMI: Guangzhou

T: …….. Now, open your book, please. Page 47. Look at the pictures. Let's learn 3 new words. Page 47. OK. Look at the pictures. So …. Shh!
T: Dumplings. Is that right?
Ss: Yes.
T: Yes, OK. Follow me. Dumplings.
Ss: Dumplings.
T: Dumplings.
Ss: Dumplings.

Example 2. UMI and PMI: Hong Kong

T: Gloves.
Ss: Gloves.
T: Gloves.
Ss: Gloves.
T: OK, 'gloves' is something you put on your hands so that you can get things, for example, food. OK? If you work in the canteen, you just use your hand to get your food? No!
S: Yes.
T: What do you put on? Gloves? OK? For example, if you do not put on your gloves, you got your hands dirty and then you get dirty, right? Get dirty, OK?

In this study, we noticed that PMI in the Guangzhou was greatly limited to the use of pictures, realia and/or L1 equivalent when explaining word meaning (examples 1 and 3). The large class size, the tight teaching schedule, the examination requirement and the expected role of the

teacher perhaps help explain why elaboration was not favoured in Guangzhou. Since the Guangzhou teacher had to teach a fixed number of words each lesson, and ensure that students had learnt them, presentation was usually short and direct.

Example 3. UMI and PMI: Guangzhou

T: Worse, worse? Worst! [Teacher spoke in L1: *That's right*.]
Ss: Worst.
T: [Teacher explained 'bad, worse, worst' in L1.] OK. Now. Ah, this is group A and this is group B. Which is your favourite month? One, two, three.

Example 4. PMI: Hong Kong

T: What is the meaning of recently? Is it long time ago?
Ss: Yes.
T: Sure? It's short time ago. I heard something recently about Jack. OK? Just a short time ago. I heard something about Jack. OK? Like staying in the toilet! Recently. Recently…. a short time. OK?

A form of interactionally modified input also occurred in both classrooms, although more frequently in Hong Kong than in Guangzhou. According to Ellis, IMI occurs when students have the opportunity to ask their teacher to clarify meaning and repeat words. In our data there is only one instance of this kind of interaction occurring, and this was in the case of an unplanned word (example 10). Nevertheless, we found we could make a clear distinction between display questioning of the kind exhibited in example 5, and the more probing and meaningful questioning in example 6

Example 5. PMI and UMI: Guangzhou

T: What about this one?
Ss: February.
T: February. Second month of the year. OK. And then, this is the…?
Ss: March.
T: March of the year. So you know the name, March. Go on.

Example 6. UMI, PMI and IMI: Hong Kong

T: Good. Try this one.
Ss: Extremely.

T: Extremely
Ss: Extremely.
T: Whole class. Extremely.
Ss: Extremely.
T: Extremely.
Ss: Extremely.
T: What's the meaning of 'extremely'? Yes, 'very, very, very'. You see what I mean? Stronger than the word 'very'. You see what I mean? It's extremely cold, the weather, OK? Or, for example, the water in the toilet is extremely nice?
Ss: No! Very, very bad.
T: How do you know? Jack, how do you know? How do you know?
Ss: (laughter)
T: What did you say? Then try this, the whole class.

In the Hong Kong classroom there were no instances of UMO or MO. In the Guangzhou classroom, however, both of these treatments occurred. All planned words were treated with UMO – output from students unmodified by the teacher – in the form of mechanical substitution drills.

Example 7. UMO: Guangzhou
T: Which is the first month of the year?
Ss: January
T: Which is the second month of the year?
Ss: February.
T: Which is the third month of the year?
Ss: March.

MO treatments (student-student negotiation of meaning) occurred just once, in the first lesson, when the teacher asked students to work in pairs.

Example 8. MO: Guangzhou
T: OK, now tell me. Ask your neighbour, OK. What is her birthday and tell me. OK? So, now tell me. …..
Ss: XXX's birthday is in August.
T: OK. Very good. August, OK. Anymore? So, you please.
Ss: XXX's birthday is in November.
T: Good! OK. Go on.

It is interesting to note that, although Hong Kong has been using a communicative syllabus for much longer than Guangzhou, no pairwork or groupwork was recorded at all in the Hong Kong classroom, and student-student interaction was therefore largely prevented.

The teaching of unplanned words

Unplanned words were treated differently (see Table 11 and Appendices 5a and 5b).

Table 11: Percentages of the input/output treatment of unplanned words in the two classrooms

	UMI	**PMI**	**IMI**	**UMO**	**MO**
Guangzhou	69.5	21.7	21.7	6.5	0
Hong Kong	36	52	60	8	0

In the Guangzhou classroom UMI remained a common treatment but IMI, UMO and MO were little used. PMI and IMI were more apparent in the Hong Kong classroom, but the number of treatments was drastically reduced. UMI occurred in pronunciation practice, as with the teaching of the planned words. The two incidents of UMO treatment noted in the Hong Kong classroom occurred when students were required to spell words aloud. MO was not found at all in either classroom during the teaching of unplanned words.

Although a greater amount of interactionally modified input was found in the Hong Kong classroom, there was little negotiation of meaning. Only one instance of student-initiated request for clarification of meaning was noted in the whole week's lessons (see example 10)

Example 9. IMI: Hong Kong (student- initiated interaction):

T: …….. Economics and Public Affairs, E.P.A. That means it's a subject about the people in Hong Kong. It's about houses in Hong Kong. It's about eating in Hong Kong. Economics and Public Affairs. That means you know something about Hong Kong. Do you understand?

S: This except …. business?

T: Yes……

Varieties of treatment

When questioned about their vocabulary teaching methods the teachers said they did not believe that a single treatment was sufficient. In treating the planned words, both teachers used a variety of input/output types (Table12a). None of the words were treated once only. In the Guangzhou classroom, most of the planned words were treated with four different input/output types (see also Appendix 4a). In the Hong Kong classroom, most of the planned words were treated with three different input/output types (see also Appendix 4b).

Table 12a: Percentages of the treatment of planned words

	Guangzhou classroom	**Hong Kong classroom**
Single treatment		
▪ 1 type of input/output treatments	0	0
Multiple treatments		
▪ 2 types of input/output treatments	16.7	16.7
▪ 3 types of input/output treatments	16.7	83.3
▪ 4 types of input/output treatments	66.7	0

There was a clear association of input/output types with stages in the lesson. The Guangzhou teacher told the researchers that the planned words and the methods and steps of teaching them were specified in her teacher's book. All the selected words were flagged in the teachers' book for two kinds of word knowledge (knowing how to read and write), four (knowing how to read, write, speak and listen) or five (knowing how to read, write, speak, listen and translate). The thorough treatment of the planned words in the Guangzhou classroom reflects the impact of the syllabus word list on textbook writing and teaching.

In Guangzhou, the teacher followed the Presentation, Practice and Consolidation sequence closely with a clear pattern of input and output types at the different stages. PMI was apparent at the Presentation stage, then UMI and PMI at the Practice stage when students learned the pronunciation and practised the target items through substitution drills, and finally IMI (and in

the first lesson, MO) at the Consolidation stage (see Example 11). In Hong Kong, the teacher began with UMI (the pronunciation drill) in teaching these planned words, followed by PMI and finally IMI to check students' understanding (see Example 12).

Example 10. Guangzhou: The treatment of the planned word 'January' at different teaching stages.

Presentation Stage:

T: So, yes. It's a calendar. Calendar. So now tell me. Which is the first month of the year?
Ss: January.
T: OK, you know it's still winter, right? OK. This is the first month. Shuh. This is the first month and then let's go on.

Practice Stage: (pronunciation drill)

T: First. Which is the first month of the year?
Ss: January
T: So, class, January.
Ss: January.
T: January.
Ss: January.
T: OK. Pay attention to the phonetic symbols. OK? [T explained again in L1.] So, January.
Ss: January.
T: So, what about, students, what about the second month?

Practice Stage: (substitution drill)

T: OK. Tell me. Which is the first month of the year?
Ss: Janu….
T: January.
Ss: January.
T: OK. Which is the second month of the year?

T: The first? The first?
Ss: January.
T: January. OK. January. OK. So the first month, can you tell me?
Ss: January.
T: Good. The second month?

Consolidation Stage:

T: OK. Now, tell me. So, ask your neighbour, OK? What is or her birthday and tell me. OK? So, now tell me.
[Students asked their neighbour.]
T: OK. Shut up. Stop. Please. Stop. Please. Tell me. His. .. his. You know? His is in …… OK? Shut up. Tell me.

T: Do you know, do you know more? Whose birthday is in January? January? Any more? 1…2… Two students. February. What about February? OK? One….two….three…..four. Four. OK. …….

(The next lesson)

T: OK. Now, please. Let's go over them together. So now, the first month in the year. The first month of a year.? How do you read?

Ss: January.
T: OK. You, please. The first month?
S2: January.
T: OK. You, please.
S3: January.
T: OK. Very good. What about the second one?

T: OK. So now. Yes. You know the methods. OK. This. So, now I give you the first letter of each month. So now, can you recite the words in correct order? [Teacher repeated the instruction in L1.] Go on.
Ss: January, February, March, April, May, June, July, August, September, October, November, December.
T: OK. Can you? Yes or no? OK. First, first. OK.
S11: January, February, March, April, ……..

Example 11. Hong Kong: The treatment of planned word 'unfortunately' at different stages.

T: Unfortunately.
Ss: Unfortunately.
T: Unfortunately.
Ss: Unfortunately.
T: What is the meaning of 'unfortunately'?
S: Unlucky.
T: Yes, unlucky. OK. For example, ah, Jack is enjoying his time in the toilet, but unfortunately, someone locked on his door. Come out, please. How come you stay in the toilet for two hours? OK? 'Unfortunately', and then … 'gloves'.

In the Guangzhou classroom, unplanned words were regarded as less important, and therefore requiring less attention. The focus was on pronunciation or recognition only, and this accounts for the high percentage of UMO in the data. As stated previously, IMI and MO in the Guangzhou classroom were means to practise and consolidate taught words, but UMI alone was generally perceived as adequate for unplanned words. The majority of the unplanned words (91.3%) were treated once only with UMI and only one word, *ago*, received as thorough treatment as a planned word (see Table 12b and also Appendix 5a).

Table 12b: Percentages of the treatment of unplanned words

	Guangzhou classroom	Hong Kong classroom
Single treatment		
▪ 1 type of input/output treatment	91.3	52
Multiple treatments		
▪ 2 types of input/output treatments	6.5	40
▪ 3 types of input/output treatments	0	8
▪ 4 types of input/output treatments	2.2	0

In the Hong Kong classroom, twenty out of the twenty-five unplanned words were explicitly taught to clarify problems in accomplishing other tasks. The goal was to complete the composition correction or the listening exercise. Thus, pronunciation practice was not considered appropriate, but understanding of word meaning was regarded as important. The teacher spent much time communicating with students to ensure that they understood enough to complete the task. Six out of the eleven unplanned words which received two input/output types of treatment were taught in the same reading lesson, during which planned words were also taught (see Table 12b and also Appendix 5b).

However, both teachers tended to limit the number of different treatment types when teaching unplanned words. The majority of unplanned words were treated only once, as shown in Examples 13 and 14.

Example 12. PMI: Guangzhou (Single treatment)
T: …… we have learned some ordinals. Do you know ‘ordinals’?
Ss: No.
T: No. No? [Teacher supplied the L1 equivalent of ‘ordinals’ to the students]. OK. So now. [Teacher said “Let’s revise them together” in L1.] So, one?
Ss: First.

Example 13. PMI: Hong Kong (Single treatment)
T: And number five. It’s terrible. It’s funny. He is a lark. You know ‘lark’?
Ss: No.
T: Lark is a bird. Lark is a bird, a small bird.
Ss: has.

T: No!
Ss: He.
T: He is a clerk.
Ss: Clerk.
T: You think he's a bird? And number six, I asked him 'are' you want to have any sister or brother?

Conclusion

This study is by no means an evaluation of the teaching performance of the two teachers, and it was not the research goal to generalize about the lexical environment in every Chinese classroom.

Nevertheless it is possible to conclude from our findings that the syllabus requirements in the two provinces has a significant effect on the quality and quantity of words available for acquisition, and the vocabulary teaching methods adopted in the classroom. In Hong Kong, where the syllabus is more flexible and teachers had greater individual control, we noted that there was no student-student interaction (modified output) of the type that proved so favourable to vocabulary acquisition in the study by Ellis and He (1999). However we also observed varied lesson design, miscellaneous teaching materials, diverse topics and more spontaneous teacher-student interaction, all circumstances which contributed to greater lexical variation and a greater number of 'high-level' words in class. We have adopted Meara et al.'s (1997) assumption that the presence of more unusual or rare words indicates a lexically richer classroom.

In Guangzhou, on the other hand, the vocabulary requirements of the Chinese syllabuses ensure that planned words receive very thorough and systematic treatment, but also seem to have had the effect of impoverishing the lexical environment. The intention of the syllabus guidelines is to improve vocabulary knowledge and increase the attention paid to vocabulary in class. Such prescriptions are indeed necessary to create parity in the diverse teaching and learning

environments across China, setting standards for the quantity and quality of teaching to about three million secondary school students who sit for the norm-referenced standardized National Matriculation English Test at the end of secondary senior three (Qi 2000). The demands of the syllabus, textbook and impending examination give rise to rigid lesson plans, however, which can include useful treatments such as MO (student-student interaction), but leave little time for spontaneous unplanned talk.

The enrichment of the lexical environment is the next challenge for Guangzhou, to be achieved not only by pouring in more resources in the form of listening and reading materials, but also by creating more classroom opportunities for negotiation of meaning, as opposed to the controlled "initiation-response-feedback" cycles we observed.

The similar way in which explicitly taught words were treated in the two classrooms reflects a shared expectation and perception of how a word is learnt. Teachers and students in both Hong Kong and Guangzhou appear to believe that words should be explicitly taught, and repeatedly produced by the students in oral drills. Multiple treatments are the norm, however, and in this study single treatment was only observed when pronunciation rather than word meaning was the teaching focus. Otherwise, both teachers taught each word in various different ways, thus providing a very different vocabulary learning experience from that of the subjects in Ellis' experiments. In most classroom environments the diverse requirements of syllabus, teacher and learner are best met by an approach which includes the speed and convenience of premodified input, the communicative potential of interactively modified input, and the negotiating opportunities of modified output. The rival claims for different types of vocabulary teaching treatments should perhaps be considered with this in mind.

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Appendix 1a: Words at VP3 (Lessons in Guangzhou)

Calendar	4 / 0.5%
Computer	6 / 0.7%
Symbols	1 / 0.01%
Tape	1 / 0.01%
Text	1 / 0.01%

Appendix 1b: Words at VP3 (Lessons in Hong Kong)

Adjective	13 / 0.10%	Impressions	7 / 0.06%	Schedule	13 / 0.10%
Adjectives	8 / 0.06%	Instruction	5 / 0.04%	Section	9 / 0.07%
Appropriate	2 / 0.02%	Instructions	2 / 0.02%	Similar	1 /
Assignment	1 /	Integrated	1 /	Structure	1 /
Bubble	2 / 0.02%	Job	3 / 0.02%	Style	1 /
Bubbles	1 /	Negative	1 /	Tape	5 / 0.04%
Calendar	1/	Nervously	2 / 0.02%	Task	1 /
Comprehension	3 / 0.02%	Normal	2 / 0.02%	Team	1 /
Data	3 / 0.02%	Phase	1 /	Tense	6 / 0.05%
Dictation	9 / 0.07%	Reservoir	3 / 0.02%	Topic	2 / 0.02%
Economic	2 / 0.02%	Revision	1 /	Vocabulary	1 /
Goal	1 /			X	3 / 0.02%
Impression	6 / 0.05%				

Appendix 2a: Words beyond VP3 (Lessons in Guangzhou)

Places	**Frequency / percentage**	**Nouns**	**Frequency / percentage**	**Verbs**	**Frequency / percentage**
Guangzhou	1 / 0.01%	Porridge	25 / 0.30%	Recite	3 / 0.04%
		Noodles	17 / 0.21%	Underline	1 / 0.01%
		Homework	14 / 0.17%		
		Festival	12 / 0.15%		
		Dumplings	10 / 0.12%		
		Workbook	5 / 0.06%		
		Lunar	4 / 0.05%		
		Year's	3 / 0.04%		
		Blackboard	3 / 0.04%		
		Vegetables	3 / 0.04%		
		Ordinals	3 / 0.04%		
		Truck	3 / 0.04%		
		Twins	2 / 0.02%		
		Giant	2 / 0.02%		
		Phrase	2 / 0.02%		
		Dumplings	2 / 0.02%		
		Dialogues	2 / 0.02%		
		Dump	2 / 0.02%		
		Women's	2 / 0.02%		
		People's	1 / 0.01%		
		Phonetic	1 / 0.01%		
		Student's	1 / 0.01%		
		Festivals	1 / 0.01%		
		Clap	1 / 0.01%		
		Checkpoint	1 / 0.01%		
		Workbooks	1 / 0.01%		
		Phrases	1 / 0.01%		
		Diet	1 / 0.01%		
		Ordinal	1 / 0.01%		

Appendix 2b: Words beyond VP3 (Lessons in Hong Kong)

Places	**Frequency / percentage**	**Nouns**	**Frequency / percentage**	**Verbs**	**Frequency / percentage**	**Adjectives / Adverbs**	**Frequency / percentage**
Japan	23 / 0.18%	Toilet	36 / 0.29%	Underline	6 / 0.05%	Handsome	13 / 0.10%
Hong	12 / 0.10%	Classroom	18 / 0.14%	Tick	5 / 0.04%	Fascinating	12 / 0.10%
Kong	12 / 0.10%	Homework	17 / 0.14%	Sneeze	5 / 0.04%	Gorgeous	10 / 0.08%
Tokyo	8 / 0.06%	Prediction	12 / 0.10%	Ski	4 / 0.03%	Humid	2 / 0.02%
Asia	6 / 0.05%	Scarves	12 / 0.10%	Shed	2 / 0.02%	Yellow	2 / 0.02%
Hokkaido	5 / 0.04%	Blackboard	11 / 0.09%	Skis	1	Overseas	1
Sahara	3 / 0.02%	Adverbs	10 / 0.08%	Overflow	1	Today's	1
China	2 / 0.02%	Gloves	10 / 0.08%	Skip	1	Biweekly	1
Australia	2 / 0.02%	Wallet	9 / 0.07%	Recite	1	Politely	1
Fuji	2 / 0.02%	Postcard	8 / 0.06%	Deduct	1	Naughty	1
Mekong	2 / 0.02%	Handbook	8 / 0.06%	Flush	1	Amazing	1
Canada	1	Adverb	7 / 0.06%	Minus	1	Forgetful	1
Beijing	1	Festival	7 / 0.06%				
Aberdeen	1	Canadian	7 / 0.06%				
Korea	1	Chinese	6 / 0.05%				
Nile	1	Visa	6 / 0.05%				
		Classmates	5 / 0.04%				
		Butcher	5 / 0.04%				
		Quiz	5 / 0.04%				
		Textbook	5 / 0.04%				
		Blanks	4 / 0.03%				
		Timetable	4 / 0.03%				
		Paragraph	4 / 0.03%				
		Lark	4 / 0.03%				
		Japanese	4 / 0.03%				
		British	3 / 0.02%				
		Indian	3 / 0.02%				
		Wrestling	3 / 0.02%				
		Skiing	3 / 0.02%				
		Sumo	3 / 0.02%				
		Nightingale	3 / 0.02%				
		Suitcase	3 / 0.02%				
		Amazon	3 / 0.02%				
		Punctuation	3 / 0.02%				
		Cane	3 / 0.02%				
		Blank	3 / 0.02%				
		Dialogue	2 / 0.02%				
		Storybook	2 / 0.02%				
		Classmate	2 / 0.02%				
		Syllable	2 / 0.02%				
		Passport	2 / 0.02%				
		Picnic	2 / 0.02%				
		Bleep	2 / 0.02%				
		Honey	2 / 0.02%				
		Coral	2 / 0.02%				
		Syllables	2 / 0.02%				
		Jogging	2 / 0.02%				
		Compositions	2 / 0.02%				
		Peer	2 / 0.02%				
		Wonton	2 / 0.02%				

		Australian	2 / 0.02%				
		Korean	2 / 0.02%				
		Pacific	2 / 0.02%				
		Champion	1				
		Tiger	1				
		Hints	1				
		Blackboard	1				
		Palm	1				
		Visas	1				
		Canteen	1				
		Pronoun	1				
		Volunteer	1				
		Tortoise	1				
		Hamburgers	1				
		Physics	1				
		Phrases	1				
		Hamburgers	1				
		Plastic	1				
		Nationality	1				
		File	1				
		Breeze	1				
		Tennis	1				
		Commas	1				
		Nationalities	1				
		Comma	1				
		Scarf	1				
		Lighting	1				
		Reference	1				
		Oral	1				
		Apostrophe	1				
		Atlantic	1				
		Principal	1				
		Father's	1				

Appendix 3: Words planned for explicit teaching

T1 (Guangzhou)	**T2 (Hong Kong)**
January	Gloves
February	Fascinating
March	Unfortunately
April	Extremely
May	Schedule
June	Recently
July	
August	
September	
October	
November	
December	
Favourite	
Worse	
Worst	
Dumplings	
Noodles	
Porridge	

Appendix 4a: Treatments of planned words taught in the Guangzhou classroom

No.	planned words	UMI	PMI	IMI	UMO	MO
1	January	✓	✓	✓	✓	✓
2	February	✓	✓	✓	✓	✓
3	March	✓	✓	✓	✓	✓
4	April	✓	✓	✓	✓	✓
5	May	✓	✓	✓	✓	✓
6	June	✓	✓	✓	✓	✓
7	July	✓	✓	✓	✓	✓
8	August	✓	✓	✓	✓	✓
9	September	✓	✓	✓	✓	✓
10	October	✓	✓	✓	✓	✓
11	November	✓	✓	✓	✓	✓
12	December	✓	✓	✓	✓	✓
13	favourite	✓	✓	✓	✓	
14	worse	✓	✓	✓	✓	
15	worst	✓	✓	✓	✓	
16	dumplings	✓	✓		✓	
17	noodles	✓	✓		✓	
18	porridge	✓	✓		✓	

Appendix 4b: Treatments of planned words taught in the Hong Kong classroom

No.	planned words	UMI	PMI	IMI	UMO	MO
1	gloves	✓	✓	✓		
2	fascinating	✓	✓	✓		
3	unfortunately	✓	✓	✓		
4	extremely	✓	✓	✓		
5	schedule	✓		✓		
6	recently	✓	✓	✓		

Appendix 5a: Treatments of unplanned words taught in the Guangzhou classroom

No.	unplanned but explicitly treated words	UMI	PMI	IMI	UMO	MO
1	calendar		✓			
2	bad		✓	✓		
3	festival			✓		
4	better			✓		
5	best			✓		
6	day			✓	✓	
7	date			✓	✓	
8	ordinals		✓			
9	first		✓			
10	fortieth		✓			
11	ninetieth		✓			
12	cold			✓		
13	ago	✓	✓	✓	✓	
14	weather		✓			
15	meeting*	✓		✓		
16	did	✓	✓			
17	much colder		✓	✓		
18	chair	✓				
19	cheap	✓				
20	child	✓				
21	reach	✓				
22	touch	✓				
23	march	✓				
24	catch	✓				
25	watch	✓				
26	village	✓				
27	dangerous	✓				
28	vegetables	✓				
29	train	✓				
30	truck	✓				
31	Australia	✓				
32	dress	✓				
33	drive	✓				
34	children	✓				
35	aunts	✓				
36	starts	✓				
37	parents	✓				
38	gates	✓				
39	minutes	✓				
40	hands	✓				
41	needs	✓				
42	roads	✓				
43	grace	✓				
44	rice	✓				
45	get	✓				

46	meals	✓				

* Word not found in the texts or teaching materials.

Appendix 5b: Treatments of unplanned words taught in the Hong Kong classroom

No.	unplanned but explicitly treated words	UMI	PMI	IMI	UMO	MO
1	lark		✓			
2	desert		✓			
3	largest		✓	✓		
4	explain		✓			
5	poster		✓	✓		
6	pass	✓			✓	
7	school activities		✓	✓		
8	EPA*		✓	✓		
9	sumo wrestling	✓		✓		
10	scarves	✓	✓	✓		
11	especially	✓	✓			
12	postcard	✓		✓		
13	capital	✓		✓		
14	impressions	✓		✓		
15	bit	✓				
16	northern	✓	✓		✓	
17	intention		✓			
18	plan		✓			
19	visa			✓		
20	prediction			✓		
21	fortune-teller			✓		
22	nightingale			✓		
23	butcher*			✓		
24	beggar*			✓		
25	sneeze		✓			

* Word not found in the texts or teaching materials.