STRATEGIES FOR THE CONSTRUCTION OF MEANING: CHINESE STUDENTS IN SINGAPORE WRITING IN ENGLISH AND CHINESE

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Abstract The paper examines performance in written English and Chinese in a sample of Singapore students (N = 43). Students had to write essays in both languages and were invited to think aloud while doing so. Quantitative and qualitative analyses of the protocols are presented. They show that both effective and ineffective writers use meaning-constructing strategies in their writing, but they differ in the quality of this use. Those who have developed good meaning-constructing strategies in their stronger language seem to be able to transfer these strategies to their weaker language. However, their transfer seems to be more apparent if the stronger language is English. The implications of the findings for the Singapore classroom are discussed.

From Product to Process

As interest in second language acquisition grows, and more and more studies are conducted in this field (McLaughlin, 1987; Krashen, 1985, 1982; Wode, 1983, 1981; Long, 1981), it becomes clear that in order to make more accurate statements about how a second language is learned, a good deal has to be known about the second language learner. Reid & Hresko (1981: 49) stress that it is important to consider what happens internally to a person who is learning and to view learning as construction. It is important, as a number of researchers in the cognitive sciences have stressed, to find out what is going on in the learner’s head (Chamot, 1987; Wenden, 1986; Flower & Hayes, 1984; Scardamalia & Bereiter, 1983; Brown 1978; Flavell, 1976; Hosenfeld, 1976). It is the learner who is the most important element in the teaching-learning situation; not materials, lessons, teachers, or other factors external to the learner. This shift from the product to the process places importance on the active learning on the part of the learner, that is, the strategies used in the learning process.

The Study

The study examines the meaning-constructing strategies used in English and Chinese writing.
Sample The sample consists of forty-three Secondary 3 students in four Singapore schools. Based on the writing proficiency as manifested in a previous writing task, this sample was divided into four groups, as follows:

1. High proficiency in both English and Chinese (E+C+)
2. High proficiency in English, low proficiency in Chinese (E+C-)
3. Low proficiency in both English and Chinese (E-C-)
4. Low proficiency in English, high proficiency in Chinese (E-C+)

Instruments The students were asked to write in both English and Chinese on the topic:

*Why do you think it is necessary to learn two or more languages in Singapore? Let me know your own experience in learning two languages.*

They were asked to think aloud as they wrote. The think-aloud protocols were analysed quantitatively and qualitatively. Meaning-constructing strategies were analysed according to an adapted version of Langer's (1986) classification:

1. Metacognitive writing strategies — Content
2. Metacognitive writing strategies — Text
3. Linguistic interdependence between English and Chinese
4. Aural-visual strategies

Results

Metacognitive writing strategies (content)

Table 1 shows that both effective and ineffective writers use metacognitive writing strategies (content) in varying degrees. For example, the writers in all four groups, whether writing in English or in Chinese, appear to have no problems using schemata and schemata (personalised) in their expository writing.

The results indicate that compared to the above two strategies, there are relatively fewer instances of evaluating schemata by all the four groups. Surprisingly, the E-C- Group has the highest score for this strategy. However, an examination of their protocols shows that they evaluate schemata often because they cannot exactly pinpoint what the problem is, and so they keep revising and asking questions to decide whether they are on the right track. The following excerpt illustrates this. (The original protocols preserved considerable information about the language used, English, Chinese or Singlish, the errors made, interpolations and clarifications by the researcher, and so on. We have not retained this information in the excerpts to follow, except that we indicate the use of Chinese in the sections below where Chinese-English codeswitching is discussed.)

Table 1 Protocol scores for 'metacognitive writing strategies (content)'

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Target Language</th>
<th>E+C+</th>
<th>E+C-</th>
<th>E-C-</th>
<th>E-C+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questioning</td>
<td>E</td>
<td>0.97</td>
<td>1.47</td>
<td>1.41</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>0.46</td>
<td>0.89</td>
<td>0.14</td>
<td>0.49</td>
</tr>
<tr>
<td>Schemata</td>
<td>E</td>
<td>23.34</td>
<td>25.33</td>
<td>18.77</td>
<td>23.45</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>27.20</td>
<td>21.54</td>
<td>15.07</td>
<td>17.20</td>
</tr>
<tr>
<td>Schemata (personalised)</td>
<td>E</td>
<td>15.04</td>
<td>13.50</td>
<td>13.22</td>
<td>12.69</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>7.50</td>
<td>12.86</td>
<td>10.80</td>
<td>20.04</td>
</tr>
<tr>
<td>Evaluating schemata</td>
<td>E</td>
<td>2.30</td>
<td>2.71</td>
<td>3.86</td>
<td>2.12</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>0.84</td>
<td>2.02</td>
<td>0.76</td>
<td>2.16</td>
</tr>
<tr>
<td>Metacommments on the content</td>
<td>E</td>
<td>4.67</td>
<td>8.93</td>
<td>7.51</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>2.91</td>
<td>3.22</td>
<td>5.09</td>
<td>0.99</td>
</tr>
<tr>
<td>Revising</td>
<td>E</td>
<td>2.10</td>
<td>1.87</td>
<td>2.34</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>2.22</td>
<td>2.09</td>
<td>0.76</td>
<td>2.66</td>
</tr>
</tbody>
</table>

Some *meta-comments on the content* are made for the task in both languages, showing that the poor writers, although they have difficulties identifying and solving their rhetorical problem, also pause occasionally to reflect metacognitively about their writing.

**Metacognitive writing strategies (text)**

Though both the good and weak writers correct *grammatical* mistakes when they write in English, the former make fewer grammatical mistakes to start with. To them, the overall meaning construction is more important than grammar correction. Weak writers, on the other hand, pay more attention to low-level mechanical and grammatical changes rather than to the organisational and rhetorical aspects of the text. It is possible that their teachers have been emphasising grammar in the belief that it is the only way for them to improve their writing in English, or, as Cohen (1987) suggests, simply because it is the easiest topic on which to respond to them. In addition, many English teachers in Singapore are more comfortable with the product-approach rather than the process-approach as the latter demands individual time with the students, and, more importantly, expertise in the language, a qualification that some of them might feel they lack. Student 016 in E-C- sums up the general frustrations of the weak learners of English about grammar learning in the following excerpt:
(2) When I was learning English during primary school, I feel frustrated because I have to learn about grammar, vocabulary and lots more. And grammar gives me a great headache like the present tense, present past tense and the teacher force us to remember it. (Subject 016D: 29-43)

It is rare to find students at this age group in Singapore pondering on grammar when writing in Chinese, as that requires a sophisticated metalinguistic awareness. There were only two protocols (0.15%) referring to grammar during the writing task in Chinese. Both were made by the E+C+ Group.

The use of schematic links distinguishes the good writers from the poor ones. As expected, writers in the E+ Groups make the most use of these links in the writing task in English. In the task in Chinese, the C+ Groups use the most links. The flow of the writing in the E-C+ Group is jerky, and there are markedly fewer schematic links. Shaughnessy (1977) points out that ineffective writers often assume that the reader understands what is going on in their minds and therefore do not provide introductions, transitions or explanations. A piece of writing in which the ideas are coherently linked together is evidence of clear and logical thinking and writing expertise.

Metacomments on the text This refers to the comments about the writer’s use or non-use of particular surface features of the text itself. Consistent with the literature review, for the writing task in English, the good writers (especially the E+C- Group) are less concerned about the surface features than the weak writers. For the writing task in Chinese, however, because it is crucial to get the strokes of the Chinese characters right, the writers in all four groups tend to pay greater attention to the strokes when they write in Chinese than to spelling when they write in English. The writers, especially those in the E+C+ Group, take pains to monitor and check that the Chinese characters have been written correctly. This also reflects the way Chinese is currently being taught in Singapore — with great emphasis on accuracy — so good students take pains to check that they have constructed the intended meaning with the right characters. Where learning the Chinese language is concerned, many students find remembering and mastering the correct strokes to be the greatest problem, as the following excerpts endorse:

(3) While in Chinese, I have a great difficulty to know how to write the words and I feel that the strokes are very complicated. (Subject 016D: 50-5)
(4) The learning of Chinese characters is a headache. (Subject 039D: 277-78)

Despite the difficulty of getting the characters right, subject 097 (E+C+) says during the interview that he would still use ‘hard words’ as that is more impressive. An examination of the protocols shows that the E+ groups tend to go for more sophisticated vocabulary, and get the strokes for these characters wrong either because there are more strokes to master and remember, or because they have confused them with other similarly-sounding or similarly-visual characters. The E-C- Group appears to have many problems with even basic and simple characters and getting the strokes for these characters right. Even the writers in the E-C+ (proficient in Chinese) struggle with getting the characters right when they write in Chinese.
Table 2 Protocol scores for 'metacognitive writing strategies (text)'

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Target Language</th>
<th>E+C+</th>
<th>E+C-</th>
<th>E-C-</th>
<th>E-C+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar</td>
<td>E</td>
<td>0.40</td>
<td>0.04</td>
<td>0.44</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>0.15</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Making schematic links</td>
<td>E</td>
<td>2.70</td>
<td>2.89</td>
<td>1.63</td>
<td>2.16</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>1.00</td>
<td>0.67</td>
<td>0.69</td>
<td>0.92</td>
</tr>
<tr>
<td>Metacommments on the text</td>
<td>E</td>
<td>1.40</td>
<td>2.22</td>
<td>6.80</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>6.97</td>
<td>5.09</td>
<td>7.29</td>
<td>4.80</td>
</tr>
<tr>
<td>Using hanyu pinyin</td>
<td>C</td>
<td>0.84</td>
<td>1.35</td>
<td>0.62</td>
<td>0.49</td>
</tr>
<tr>
<td>Leaving blanks</td>
<td>C</td>
<td>2.29</td>
<td>0.22</td>
<td>6.13</td>
<td>1.33</td>
</tr>
</tbody>
</table>

Table 2 also records the students' use of the strategy *hanyu pinyin*, i.e. Chinese phonetics. Sometimes, when writers do not know how to write the Chinese characters, they resort to using *hanyu pinyin*. This is because it is easier to remember the sound than the visual appearance of the character, the latter requiring more memory work. (Students in Singapore are encouraged to use hanyu pinyin.). The E+C- group has the highest score for this strategy, suggesting that the writers in this group are aware of and are dependent on hanyu pinyin in their writing whenever they get stuck. It is also possible that this group of students finds it easier to learn via the sound of the language than by the appearance, the latter demanding more memory work.

*Leaving blanks* is a strategy that some of the skilled writers in this study employ so that they can pursue the development of their ideas without being side-tracked by lexical and syntactic difficulties. A few writers in the E+ groups actually remark in their protocols that they will 'come back to it' when they are stuck with not knowing how to write a character. If this line of argument is followed, it is surprising then to see (Table 2) that at first glance the E-C- group has the highest score for this strategy. However, a closer examination reveals that for this group, the blanks that are left behind are more an indication of an inability to write the characters rather than a strategy to suspend concern so that the flow of thought is not interrupted.

One strategy that expert writers in this study use to side-track the problem of writing difficult Chinese characters is substitution. As example 5 below shows, the writer was unable to write the Chinese characters *jie chu* for the word *touch* so he used another word, whose Chinese characters he was able to write, to convey his meaning.
Another strategy is that of word association. When they are stuck and unsure of the strokes for the Chinese character, writers find it extremely useful to refer to another context when that particular character is also used in order to trigger the memory.

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Linguistic interdependence between English and Chinese

This is illustrated by the strategy of code switching. It involves the deliberate use of cross-linguistic resources in order to find or generate new ideas, or to evaluate what has already been written (Cumming, 1989). In this study, code switching takes place when writers think or articulate ideas in Chinese when writing in English, or vice versa.

The E+C- group is a good example of the linguistic interdependence at work. They appear to make use of their stronger language (English) to think and monitor their behaviour while writing in their weaker language (Chinese). The scores in Table 3 indicate that there is a greater tendency for the sample to use or think in English while writing in Chinese than the other way round, thus suggesting that English academic vocabulary is more easily available. For example, when writing in Chinese, the writers tend to refer to punctuation markers (for example, ‘comma’, ‘full stop’) and discourse markers (for example, ‘next paragraph’) in English. Metacomments like ‘Going back to the top part’ and ‘Can’t think of anything else to write’ and ‘That’s all’ are also often made in English in the process of writing in Chinese. Certain Chinese lexical items such as ‘communicate’ and ‘knowledge’ seem to be problematic to the subjects, and they refer to these items in English.

Table 3 Protocol scores for ‘linguistic interdependence’

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Target Language</th>
<th>E+C+</th>
<th>E+C-</th>
<th>E-C-</th>
<th>E-C+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code switching</td>
<td>E</td>
<td>0.63</td>
<td>0.04</td>
<td>0.11</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>3.22</td>
<td>9.72</td>
<td>4.40</td>
<td>0.75</td>
</tr>
</tbody>
</table>
The next excerpt is an illustration of an interesting mix of code mixing and metacognitive comments on using a synonym when the writer is unable to write the Chinese characters he originally has in mind:

(7) 不会 写 communicate.

bu wei sye ‘communicate’.

Cannot write ‘communicate’.

他人 交通？交往？

ta ren jiao tong？ jiao wang？

Others communicate？ Get together？

‘Communicate with others? Get together?’

I am not sure how to write ‘communicate’

so I write down
so I write down gen ta ren lian luo
so I write down with others liaise

‘so I write down liaise with others’ (Subject 096B: 22-5)

Some subjects resort to writing down the actual English words in their Chinese writing task, as illustrated by the following excerpt:

(8) 不会 写, 写 simple-lah

bu wei sye, sye simple

Can’t write (the word), write ‘simple’. (Subject 197D: 84–5)

It is interesting to note that one of the references in Chinese made by a writer in the C-C- group when writing in English is related to the values that the Singapore government has been advocating for studying the mother tongue: values of knowing one’s roots. Thus, when it comes to the expression of this particular point, the protocols indicate that the writer thinks in Chinese even though he is writing in English:

(9) Singapore is a, um, si yuan zhang zhu [i.e. multi-racial society] so we must learn other languages to communicate with our friends. (Subject 035: 22–6)

This is congruent with Friedlander’s (1990) finding that writers write best if the language of writing is the language related to the acquisition of the topic-area knowledge.

There are fewer instances of the sample thinking in or using Chinese when writing in English. As mentioned earlier, the few examples are connected with vocabulary such as:

旅行

(10) I want to say, you go to overseas, um, (Subject 035C: 86–8)
It would therefore appear that where academic writing is concerned, the sample appears to be more competent in English than in Chinese. The following excerpt from the Chinese writing task encapsulates the frustration of a student who is good in English writing but wrestles with problems when writing in Chinese:

(11) Wait, let me speak English now. I mean, I mean, I feel that I am a creative and spontaneous person. And, in my case ... Perhaps eh ... of my insufficient knowledge of Chinese, I feel that is impossible for me to really express myself using my limited Chinese as it allows very little room for the use of creative language. I mean, in English, you can have puns, you can have all sorts of tongue-twisting words. But that is generally not found in the normal scope of Chinese that I use. (Subject 094B: 134-46)

Aural-visual strategies

Two strategies are considered for this factor, projecting ahead and re-reading. The results are contained in Table 4.

For the task in English, the E-C- group has the highest score (15.94%) for using the strategy of projecting ideas before committing them to paper. E-C+ follows closely behind (15.09%), followed by E+C+ (14.58%) and E+C- (13.33%). For the writing task in Chinese, again, E-C- has the highest score (16.17%). This time, however, E+C- comes next (14.06%), followed by E+C+ (10.27%) and lastly, E-C+ (9.8%). From this pattern, it appears that students who are not so proficient in the language tend to be engaged more in this strategy, the E- groups for the task in English and the C- groups for the task in Chinese. For example, when most of the E+C- group write in English, the language they are proficient in, they launch straight into the topic and start writing immediately without any apparent problems. On the other hand, the less competent writers in E-C- and E-C+ groups tend more to play around with ideas, to project ahead while the ideas are being generated, before they start writing. The same pattern is observed in the Chinese protocols.

Table 4 Protocol scores for 'aural-visual strategies'

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Target Language</th>
<th>Proficiency</th>
<th>E+C+</th>
<th>E+C-</th>
<th>E-C-</th>
<th>E-C+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projecting ahead</td>
<td>E</td>
<td>14.58</td>
<td>13.33</td>
<td>15.94</td>
<td>15.09</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>10.27</td>
<td>14.06</td>
<td>16.17</td>
<td>9.80</td>
<td></td>
</tr>
<tr>
<td>Re-reading</td>
<td>E</td>
<td>31.82</td>
<td>27.64</td>
<td>27.97</td>
<td>35.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>31.03</td>
<td>23.04</td>
<td>28.63</td>
<td>35.40</td>
<td></td>
</tr>
</tbody>
</table>

For the strategy of re-reading, it can be seen (Table 4) that among the four groups and for both languages, E-C+ has the highest percentage for the use of this strategy (35% for both languages), followed by E+C+ (31.82% for English; 31.03% for Chinese), E-C- (27.97% for English; 28.63% for Chinese) and E+C-
Perl (1980) states that the recursive nature of the writing process necessitates that writers go back in order to move forward. Writers often need to 'hear' their writing in order to check its clarity (Zamel, 1982). When interviewed, subject 094 from E+C+ mentions that at the refining stage, he reads the sentences in his mind to check whether they sound right. This comes through clearly in the following metacognitive comments made in Chinese during the Chinese writing task:

(12) 写 
好 听 — 点

sye hau tin yi dian
write nice hear a bit

‘Improve the writing to make it sound nice.’ (Subject 147B: 70)

It is possible that the visual representation of the text also helps to clarify their thinking, and move them forward.

A word of caution is necessary however. It is possible that because English is the language of academic activities for students in Singapore (given the fact that it is the medium of instruction in all schools), and because the students in group E-C+ are weak in English, they are handicapped in this task because of their lack of content knowledge in English. In other words, because this study looks only at decontextualised language via writing, students who are proficient in English can subsequently transfer the strategies to Chinese, their weaker language. However, those proficient in Chinese (and because the proficiency is in interpersonal activities) have more difficulties transferring strategies from Chinese to academic English.

Implications

Current research on expert/novice systems (McLaughlin, 1990; Cummins, 1980) indicates that there is an interdependence between first and second languages in the cognitive/academic domain because experience with one language provides the learner with strategies and metacognitive skills that generalise to subsequent languages. This is further endorsed by the findings in this study which indicate that despite the different orthographies of the English and Chinese languages, the students do seem to make use of a common underlying proficiency when they write in these two languages.

Since bilingualism is the way of life in Singapore, and is obviously here to stay, Singapore teachers must be trained to shift their attention to the process-approach so that they can equip our students with writing strategies and metacognitive skills. Teachers cannot really help students until they learn more about how and what their students learn.

The findings of this study indicate that the ineffective writers are neither passive nor inactive when they write. In fact, they use relatively many strategies; and, in many instances, they use the same strategies that the effective writers use. The crux of the difference is that the ineffective writers assess the task demands differently, and therefore use different approaches to tackle the writing task.
All in all, then, it would appear that whether it is for writing in English or in Chinese, the better writers engage various strategies to improve meaning construction, and tend to place less emphasis on surface details. The less effective writers seem to engage in these behaviours as well, but the quality of these behaviours is different. In addition, these less effective writers tend to be more concerned about the cosmetic appearance of the text.

One strategy that could be taught immediately to our ineffective writers would be teaching them to suspend their concern for improving the cosmetic appearance of their writing so that their meaning construction is not jeopardised.

Where Chinese writing is concerned, we should encourage and train our students to take pains to write the Chinese characters correctly, and to resort to using hanyu pinyin, word association or substitution when they get stuck.

Concluding Remarks

Part of being a good student is learning to be aware of one's own mind and the degree of one's own understanding. The good student may be one who often says that he does not understand, simply because he keeps a constant check on this understanding. The poor student who does not, so to speak, watch himself trying to understand, does not know most of the time whether he understands or not. Thus, the problem is not to get students to ask us what they don't know; the problem is to make them aware of the difference between what they know and what they don't (Holt, 1964: 28–9).

As educators, our role should be one of providing instructional scaffolding that will equip students for life-long learning. We should strive to make our students become active agents in knowing, and to empower them by giving them control over their own learning. Once they are active agents empowered to orchestrate knowledge, they will be capable of having their own thoughts, and be armed with the strategies to construct meaning from these thoughts. Good teaching should therefore include teaching students how to learn, how to remember, how to think, and how to motivate themselves.

References


