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Research on mother tongue's learning strategies of pupils in Singapore

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Abstract

With information and communication technology used widely in the primary school in Singapore, it will be focused how to use ICT to support the pupils to learn mother tongue. Chinese is one of mother tongue popular in Singapore. Previous research show that language learning effects have very much related to learning strategies. Thus, we would like to explore the current status of those pupils' Chinese language learning strategies. According to Oxford's classification, the language learning strategy includes six categories: compensation, meta-cognitive, cognitive, social, memory, and affective strategies. We used the inventory SILL to know more about these strategies. We want to solve three questions: What about their strategies in learning Chinese? How are their language learning strategies influenced by their personal characters? Which of their strategies should be supported with ICT to teach?

After the survey, we found that those pupils had good scores on the compensation, meta-cognitive, cognitive, and social strategies, but insufficient on the memory strategy and affective strategy. Female pupils are better than male in all six strategies. Male and female pupils have significant differences between cognitive, compensation, meta-cognitive, and affective strategy. Pupils have significant difference only in affective strategy between pupils of fourth and fifth grade. No significant difference in other strategies among three grades. Referenced to related research on ICT, we consider that teachers should integrate ICT in the classroom to increase the exercise of memory strategy and induce their affective strategy.

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Keywords: Pupils; mother tongue; language learning strategies; information and communication technology.

1. Introduction

Successful language learners tend to select strategies that work well together in a highly orchestrated way, tailored to the requirements of the language task (Chamot & Kupper, 1989). These learners can easily explain the strategies they use and why they employ them (O'Malley & Chamot, 1990). So, we think that language learning strategies would be helpful for learners to improve the efficiency of acquisition of language. Teachers should know students' language learning strategies to teach in order to get the high guidance. With the China's development,

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Chinese become more and more popular as a second language in the international community. In Singapore, the primary and secondary schools generally open mother-tongue curriculum (also known as “HUA WEN KE” in China). And some pupils feel difficult to learn Chinese well, although they have family with Chinese parents.

In order to help pupils learn Chinese more effective, teachers would like to integrate the ICT (information and communication technology) into the classroom to improve their language learning. Thus, we would like to know about their current language learning strategy so as to look for the supported method with ICT in Singapore.

2. Method

2.1. Participants

We selected the three grades' pupils to be participants in Edgefield primary school. 480 pupils took the survey at the end of 2008. Every grade includes 6 classes. The study only selected those pupils who selected Chinese as mother tongue to learn. Those questionnaires had been deleted to leave 469 valid for data analysis. The recovery rate is 97.7%. The first table shows the distribution of the participants on Gender and Grade.

Table.1 Crosstab of Gender and Grade

	Grade 4	Grade 5	Grade 6	Sum.
Male	63	76	96	235
Female	62	75	97	234
Sum.	125	151	193	469

2.2. Inventory and its structure

The survey selected Strategy Inventory for Language Learning (SILL). SILL is a self-report questionnaire to assess the frequency of use of language learning strategies (Oxford, 1990). In the SILL, language learning strategies are grouped into six categories for assessment: Memory strategies for storing and retrieving information, Cognitive strategies for understanding and producing the language, Compensation strategies for overcoming limitations in language learning, Meta-cognitive strategies for planning and monitoring learning, Affective strategies for controlling emotions, motivation, and Social strategies for cooperating with others in language learning. The SILL uses five Likert-type responses for each strategy item ranging from 1 to 5 (i.e., from ‘never or almost never true of me’ to ‘always true of me’).

In this study, learners were asked to respond to each item based on an honest assessment of their language learning strategy use. Once completed, the SILL data furnishes a composite score for each category of strategy. A reporting scale can be used to tell teachers and students which groups of strategies they use the most in learning Chinese: (1) High Usage (3.5–5.0), (2) Medium Usage (2.5–3.4), and (3) Low Usage (1.0–2.4). The survey took the simplified Chinese version which consists of 36 items in order to let pupils easily check. Every pupil need to fill the basic information (gender and grade) in order to analyze the difference of group.

2.3. Data collection and analysis

The survey was issued at the end of 2008. At beginning we organized all of the Chinese teachers to take the meeting how to explain the introduction of the questionnaire. The survey was finished in half an hour in one week. Survey data was analyzed by SPSS16.0. The study took descriptive method, t-tested of simple samples and One-way ANOVA. To determine significance throughout the study, the standard of $p < .05$ was used. After the statistics, the reliability coefficient of inventory is 0.911. The RC of sub-category strategy is in 0.486-0.815 to meet the measurement requirement. The result indicted that the inventory could be applied to measurement of foreign students of Chinese as a second language learning strategies, and it has good internal consistency. The reliability

between each sub-category and total are high: 0.662-0.844. The above indicates that it has high homogeneity. And the result of factors analysis shows that it has good construct validity.

3. Results

3.1. Overall strategy use

The study took the descriptive method to analyze the current conditions of each learning strategy. Please see the following table 2:

Table 2. Descriptive statistics for the six strategy categories

	compensation strategy	meta-cognitive strategy	social strategy	cognitive strategy	Memory strategy	affective strategy
M	3.52	3.42	3.15	3.06	2.89	2.88
SD	.76	.78	.75	.78	.85	.79

In the table, we can know that compensation strategy has highest mean score and affective strategy has the lowest mean score. But only the usage of compensation strategy is higher than 3.5. Memory strategy is just little higher than affective strategy. But both of them are lower than 3 (medium usage). However, both of them have important value in their learning process. Memory process can let them have some good words and sentences. Affective strategy can let them engage and like to learn more.

3.2. Use of the strategies by grade

The study took one-way ANOVA method to analyze the differences among three grades. See the third table:

Table 3. Difference of the six strategy categories by Grade

	memory strategy	cognitive strategy	compensation strategy	meta-cognitive strategy	affective strategy	social strategy
F	.642	1.087	.414	1.981	3.414	1.603
p	.527	.338	.661	.139	.034*	.203

*p<0.05

Table 3 shows that pupils from three grades have significant difference in affective strategy ($p = .034 < .05$). The subsequent multiple comparisons indicate that only pupils between grade four and five have significant difference, but both of them have no significant difference with those of grade six. The students of grade 5 have higher means than those of grade 4 in this strategy. It shows that grade 5 students better control the feelings engagement in the learning process by self-encouragement, self-reward and reduction of anxiety to manage and regulate emotions better. But grade 6 may feel too heavy pressure to engagement in the learning Chinese. However, the other five categories have no significant difference among three grades.

3.3. Use of the strategies by gender

The study took the method of independent samples T test to analyze the difference between boys and girls. The result is as follows in table 4.

Table 4. Difference of the six strategy categories by Gender

	Boys' M	Girls' M	F	p
memory	2.82	2.94	1.57	.211
cognitive	2.96	3.15	5.07	.025*
compensatic	3.40	3.15	5.76	.017*
meta-cognitive	3.27	3.15	14.9	.000***
affective	2.76	2.55	10.2	.001*
social	3.09	3.15	.48	.490

*p<0.05 **p<0.01 ***p<0.001

We can know that girls have higher score than boys in six strategies categories. But boys and girls have significant difference in only four strategies (cognitive, compensation, meta-cognitive and affective). The girls have more advantages than boys learning language.

4. Discussion

Strategy can help people learn to master the language skills, enhance motivation to learn, and to enhance their autonomy. We can find the deficiency in their strategy from the survey. The result will give the more effective instruction advice to teachers in Singapore.

4.1. *Memory strategy should be given more attention to development*

The result shows that there is significant correlation between both of six strategies. If we improve some strategy category, other strategies may be improved. Since they have low memory strategy, we can improve it in order to promote other strategies. At China, many children began to recite the poets and essays since they could speak and read. When they enter to the primary schools, Chinese teachers tend to develop students in memory to take a lot of skills, for example, a large number of memory and recite a poem recited the refrain; allow students to group words Solitaire, etc. Lots of memory and recitation of good language will make good promotion for their Chinese learning effect. Memory activity can facilitate the learning process so that students can organize the content well to finish the difficult task.

In Singapore teachers in primary school have the instruction requirement to let pupils to read and understand the article. Those teachers don't realize the importance of memory strategies to learn language. From physiology opinion, the pupils are in the time with good memory ability. So it's good idea to pay more attention to the memory strategy development.

4.2. *To use ICT to design the active and engaged classroom context and to promote the boys' interest to learn Chinese and interact with girls with high strategy in learning Chinese*

Data show that girls' language learning strategies are higher than boys. Experience help us explain that girls have quick development in language learning than boys, which we can find the evidence from the study of physiology, which the language ability of boys and girls have differences in the brain structure. The left hemisphere dominated brain which words and the information translated into the smooth processing of words, and the right brain dominates spatial information and other non-translated into terms of information processing. Female brain hemisphere, as well as the growth of nerve cell dendrites formation of nerve myelin lead than men, so women in the left brain hemisphere laterality of functional specialization than men on the earlier, more intense, in the specialization, maturity and dominance development, both in speed or level, more than men, which resulted in verbal ability than men.

Research tells us that ICT can create the active classroom context and make students have motivation to learn. So teachers can design some moving contents to connect Chinese words and sentences together, to create some more interesting materials. Dynamic context is helpful to attract boys take part in the classroom activity and interact with pupils. Teachers can design some interactive activities for pupils to practice more and discuss about it. In this process, they can communicate and learn each other. The social and affective strategy can be developed with each other.

5. Conclusion

(1) The pupils in Singapore primary schools have high compensation strategy and low memory and affective strategy.

(2) The girls have significant difference on cognitive, compensation, meta-cognitive and affective strategy with boys. The girls in strategy usage have higher score than boys.

(3) The pupils have significant difference on affective strategy between the students of grade 4 and 5.

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