Premier’s Kingold Chinese Language Teacher Scholarship

Developing Reading and Writing Skills in Chinese in an ICT Supported Environment: Leap-Over Teaching Model

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As Australia has developed extensive contacts with China, the importance of learning Chinese has been strongly recognized by governments at all levels in Australia. Chinese programs are now being provided across all education sectors: mainstream schools (including public schools, Catholic schools and independent schools), community language centers and vocational institutes (TAFEs). While there is a significant growth in the number of younger students in schools, senior high school students are giving up on Chinese at an astonishing rate despite considerable efforts to promote Asian languages by successive governments (McNeilage & Tovey, 2013). In 2013, while 25,000 students were learning Chinese at schools throughout NSW, a total of 920 students were taking Chinese as a subject in HSC, including 689 Background students (NSW Board of Studies, 2013). The difficulties in reading and writing due to the challenging nature of Chinese characters have been a key factor in this decline (Orton, 2008).

Compared with English, three intrinsic difficulties are peculiar to the Chinese language: tone, homophones and characters. In addition, the fact that there is little connection between character and pronunciation and that some characters look very similar to each other in shape (like 己 and 已) greatly increases the difficulty in reading and writing Chinese. That challenges not only second language learners but also young native speakers. Researchers have been looking into this issue since the 1980s.

The Leap-Over Teaching Model, initiated by Beijing Normal University in China, highlights the significance of developing reading and writing skills in Chinese. Supported by ICT, the Leap-Over Model provides diverse learning platforms for students communicating online by typing Chinese characters on a computer. That effectively reduces the difficulty of writing characters and encourages children to engage in reading and writing activities. Since 2000, this model has been implemented in about 500 schools across more than 20 provinces in China. In 2008, it was introduced in schools in Hong Kong and Singapore, where Chinese is a second language for students.

According to data from Beijing Normal University, students using the Leap-Over model for reading and writing skills are at least two years ahead of other groups in the same grade. On average these Year Two students can write a 200-word text on a given topic in 15 minutes, and also demonstrate a very positive attitude towards reading and writing Chinese (He, Yu and Sun, 2008).

Focus Areas

The purpose of my international study tour was to investigate the framework and the practices of the Leap-Over Teaching Model for developing reading and writing skills in Chinese, and to see how this method could be applied in NSW schools to benefit students learning Chinese. During my study tour I focused on how this model motivates, engages and includes all children in learning and approached it as follows:

* + obtaining an understanding of the principles of the Leap-Over Teaching Model through discussions with experts at Beijing Normal University and reading relevant articles and books
	+ observing classes in a wide variety of schools where the Leap-Over model has been implemented successfully
	+ investigating specific technologies, applications and practical strategies employed by Leap-Over model
	+ analysing resources, materials, students performances and teachers’ reviews on the practice
	+ analysing how Leap-Over model motivates, engages and includes students and thus improves reading and writing skills
	+ investigating its application in a second-language setting in Singapore schools where Chinese is learnt as a second language
	+ interviewing students, staff, parents and principals
	+ assessing the possibilities, advantages and challenges of applying the Leap-Over model in NSW classrooms.

The educational settings included in my study tour were all primary schools where the Leap-Over model has been implemented for at least four years, including 12 schools in Shenzhen where the students were native speakers and four schools in Singapore where students were learning Chinese as a second language. Some schools were top-ranking schools in the city, while some were located in very rural areas.

The aim of this report is to introduce the key principles, class structure/activities and implementation strategies of the Leap-Over teaching model and its localisation in Singapore schools. My report will provide practical, ready-to-use ideas for Australian–Chinese teachers to use in their classrooms. It will also make recommendations for the application of this model in NSW.

Key Principles of Leap-Over Teaching Model

There are four key principles in the Leap-Over Teaching Model for the purposes of developing more positive attitudes and outcomes in reading and writing Chinese:

* 1. **Recognition of characters, integrated reading and writing.** Students learn and reinforce Chinese characters by reading texts and practising the characters through varied writing activities online (He, Yu and Sun, 2008).
	2. **Communication centred.** The Leap-Over model employs communicative strategies as the main method in teaching and learning for either first- or second-language learners. Supported by ICT, students have multiple opportunities to communicate with teachers, their classmates, the technologies, authors of readers, their parents and any others who are interested in these topics. Leap-Over offers more practice but less explanation (He, Yu and Sun, 2008).
	3. **Student centred.** Students are central in the process of developing reading and writing skills with the Leap-Over Model. Children can select and determine appropriate materials, activities and partners to learn with, based on their own level and interests (He, Yu and Chen, 2008).
	4. **ICT based.** ICT is a key element in the Leap-Over model as it proceeds from the premise that students in classrooms with their own laptops spend more time involved in collaborative work and produce writing of higher quality and greater length (Gulek and Demirtas, 2005). There is 1:1 computing in a Leap-Over classroom. All learning resources, materials and software packages have been installed. Many learning platforms and activities designed for reading/writing are also available online (He, Yu and Chen, 2008).

Class Structure and Activity Sequencing

There are normally three sections in each Leap-Over lesson: 50 per cent of time for explicit teaching, 25 per cent for online extensive reading activities and 25 per cent for online writing activities. In the explicit teaching section, students learn specified content from a textbook. The learning activities and outcomes in this section are listed in the following table:

Activities and Outcomes in the Leap-Over Teaching Model

|  |  |
| --- | --- |
| **Sequenced activities** | **Proposed outcomes** |
| * + Reading/speaking the text with teacher’s guidance
 | * + Reading/Speaking skills
	+ A basic understanding of the text
 |
| * + Communicating with teacher, using old sentence structures with new words
 | * + Communication skills
	+ Recognition of new words
 |
| * + Communicating with partners/technologies
 | * + Application and transfer of communication skills gained
	+ Understanding of new words in communications
 |
| * + Communicating with teacher, using new sentence structures with new words
 | * + New sentence structures
	+ Communication skills
 |
| * + Communicating in a group or with technology, combining new and old knowledge and language skills
 | * + Communication skills
	+ Transfer of knowledge and skills
 |
| * + Highlighting new words from text and playing games with new words, using online resources and/or flash cards
 | * + Reinforcement of the new words/characters
 |
| * + Teaching hand writing 1-2 characters
 | * + Knowing basic rules about writing Chinese characters
 |
| * + Reading sentences which includes the key words
 | * + Reading skills
 |
| * + Comprehensive reading of the text
 | * + Good comprehension of the text
 |

It can be clearly seen that, compared with traditional Chinese classes, there are two major differences in this section:

First, the teaching and learning activity starts from text rather than beginning with individual characters or words as in a traditional Chinese class, and then goes to sentences … words … characters … sentences … text. Time is thus spent on reading and communication activities rather than memorising individual words, as the Leap-Over model assumes that the best way of learning a language is to use the language and that students learn new characters much more easily when they have a good understanding of the content in which the new characters are used.

Secondly, the recognition and reinforcement of characters is learnt within words rather than by individual character. The fact that each Chinese character can have different meanings while a word normally composed of two characters has a confirmed meaning greatly increases the difficulty of learning Chinese. Therefore, learning characters associated with individual words makes memorisation using new vocabulary in communications much easier.

The second section in the sequence is online reading activities, which comprise 25 per cent of each lesson. An extensive range of readers, varied from easiest to hardest, is provided online, and relevant pictures, audios, cartoons and comprehension questions are provided for each reader to assist with children’s reading and comprehension. All these readers are carefully designed/compiled for two purposes: to reinforce new words learnt from the first section and to deepen understanding of the current topic. Thus, the readers provide students with abundant opportunities to revise new words they have just learnt. More importantly, their reading skills are further developed because students are encouraged to read as much as possible according to their own interests and ability and to discuss them with their classmates. The teacher’s role here is to provide assistance to children when needed.

The final section in the sequence, online writing activities, makes up the remaining 25 per cent of each lesson. Leap-Over believes that effective written communication can enhance both attitudes and skills in writing. Students are encouraged to participate in communicative activities by typing on a computer/Ipad rather than hand-writing on paper. This reduces the difficulty of writing Chinese characters significantly: instead of memorizing the shape of each character and the order of strokes, students are able to type what they want to say using Pinyin as long as they can speak. According to the curriculum requirements and diversity of learners’ ability, five categories of writing activities are provided for different outcomes:

* + **reproducing activities**: typing key words/phrases/sentences/paragraphs from the text or even the whole text to reinforce the new words or sentence structures
	+ **responding activities**: answering questions on material in the extensive readers in Section 2 or giving opinions on given topics
	+ **recounting activities**: writing what happened or what has been done based on the activities that children observed or took part in
	+ **evaluating activities**: giving comments/suggestions on others’ work; rewriting or editing their own work based on the feedback from others
	+ **creative activities**: writing a story, describing items or developing a story book

In each lesson, a list of options is provided for students to choose from. If they have problems with typing, the teacher demonstrates on the screen as requested.

Key Issues and ICT Requirements

Clearly, Section 1 is teacher-led, while Sections 2 and 3 are student-centred, but the three sections of each lesson have the same objectives and have been designed very carefully. In order to produce a high quality outcome, some key issues should be kept in mind:

|  |
| --- |
| A concept map for helping students develop and organize ideas for their writing.*(*Source: School of Educational Technology, Beijing Normal University*)* |

In Section 1, it is vital to ensure the children’s learning is meaningful and engaging in an authentic learning environment. In particular, the games for reinforcing new words should be easy to handle and updated regularly to retain students interest.

In Section 2, the extensive resources should be based on the teaching content of each lesson, the requirements of curriculum, and students’ needs and learning ability to make sure each student can find readers appropriate for their levels and interests. This is the key to the success of the Leap-Over model. All resources used in China’s schools are based on the textbooks and developed by staff from Beijing Normal University.

Thirdly, in the writing section, it is important to motivate students to participate in communication, encouraging them to write, comment on work of their peers, and to re-write or edit to improve the quality of their own writing. This means the activities provided must be interesting enough to fully engage learners. For second-language learning, the teacher uses cognitive tools such as concept maps to assist students to develop and organize ideas in writing.

The software and technologies employed in Leap-Over classes are simple but very useful in developing reading and writing skills:

* + Pinyin Input Method
	+ Micro-Word/PowerPoint
	+ Web-Quest
	+ class blog
	+ mind map
	+ concept map
	+ online resource system (specially developed and installed in server and students can access in class and at home with user name and password)

Significance of the Leap-Over Model

The Leap-Over model has produced great outcomes both in attitudes and skills in reading and writing Chinese in China. On my study tour, I interviewed students, teachers, parents and principals who had used the Leap-Over model for more than four years. There was overwhelming support and enthusiasm for it. All students interviewed said they loved using the websites and reading and discussing with friends online. A lot of the writing for the class blogs is done by children out of school just for fun. Parents were excited that their kids always jumped to the computer to write when they came back from school.

Significant progress in writing by students has been the outstanding feature of the Leap-Over teaching model. Research data from Beijing Normal University shows that Leap-Over students are two years ahead of others in the same grade in reading and writing. Observing in class it was so exciting to see Year 2 students complete a piece of writing 100 to 300 words long on a given topic within 15 minutes. Out of school they wrote even more words on the class blog. One principal in a rural school in Shenzhen said that since Leap-Over was implemented in the school enrolments had dramatically increased due to the achievements by students in reading and writing.

The significantly higher achievement in reading and writing by students using the Leap-Over model has also sparked interest among educational practitioners. Currently, more than 500 schools in China are participating in the Leap-Over project. It has also been used in Hong Kong and Singapore schools, where students have been learning Chinese as a second language since its introduction in 2008.

Localisation in Singapore

During my international study tour, I spent one week in Singapore investigating the practice and experience of the Leap-Over model in their local curriculum. In Singapore, the project has been localised as the 10 Cent Mother Tongue (10 CMT) project that is currently being implemented in about 20 primary schools. 10 CMT adopts the key principles and class structure of the Leap-Over model, but it also provides a valuable example of how the Leap-Over model has been adapted to a local educational system.

When the 10 CMT project was first implemented, a supporting team, including officials from the Ministry of Education, ICT staff, experts from the local university and experienced Chinese teachers from schools, was established to ensure high quality. The functions of the team are:

* + to plan for implementation of the project
	+ to maintain contact with experts at Beijing Normal University
	+ to develop online learning system and resources
	+ to determine which schools joined the project, based on their application
	+ to investigate the teaching in classroom
	+ to assess and analyse the students’ performance in reading and writing Chinese
	+ to organize professional development workshops
	+ to compile ideas, resources, materials and experience

Before implementing the project in schools, both the supporting team and teaching staff were given intensive training by experts from Beijing Normal University in order to gain a deep understanding of the principles of the model and the structuring of class activities. Teachers who expressed interest in the project also visited schools in China to observe Leap-Over classes and gain practical strategies to use in the classroom.

As well, 10 CMT ensures the full coverage of the local syllabus within the time allocated in the curriculum. The textbooks used in 10 CMT are developed by the educational authority in Singapore and cover all the requirements of their syllabus. No extra lessons outside the normal 6.5 hours allocated for Chinese language in primary schools are provided for 10 CMT classes.

It is worth noting that the online learning system and online readers are developed by local educators rather than by Beijing Normal University. This has ensured that the reading content, writing materials and ICT applied in class meet the interests, needs and learning styles of the local students. In addition to providing extensive readers and writing platforms, their online learning system also records the status of each student’s learning, including the hours they spend online and the work they have done.

Special software, *Hanshen* (汉神), is installed on all computers for children to check pronunciation and meaning of any Chinese word unknown to them in the readers. That is really convenient and helpful; however, there are also some obvious disadvantages. There are only one or two extensive readers for each lesson, which is not enough to cater for children with different abilities in Chinese as there are very mixed levels in each class. In addition, the quality of the readers is not good enough.

Despite this, 10 CMT has greatly contributed to children’s reading and writing skills in Chinese. During the class observations in four schools, all the children I interviewed told me they were much happier writing online than on paper. In a lesson which focused on developing writing skills, I saw most students created a good story based on four pictures in 20 minutes, while a few non-Chinese background students created some sentences using key sentence structures learnt in class.

Thanks to the great outcomes in reading and writing, 20 primary schools have now adopted the 10 CMT project, while initially there were only four. More schools have applied to join according to Dr Sun, the director of the project. ‘We focus on the quality rather than the quantity,’ she says.

Conclusion and Recommendations

From my study tour, I have gained a deep understanding of the framework and practice of the Leap-Over Model in teaching Chinese as a first- and/or second-language. Not only does this new model facilitate achievement in reading and writing skills, it also fosters a positive attitude towards learning Chinese. In addition, it caters for all students in a mixed level class, which is a big issue in Chinese language teaching in NSW. The practice in Singapore provides a very valuable and practical example of adapting it to a local syllabus, curriculum and learning styles of students. I highly recommend that Australian educators in Chinese implement the Leap-Over model in classrooms here. The key to success in this method is the reading and writing resources. Developing extensive reading resources suitable for Australian students would be a big challenge; however, this could be done if experts and experienced Chinese teachers here in Australia were to cooperate with experts from Beijing Normal University. The model would need to be tried out first in schools where a rich ICT environment is available. I believe the Leap-Over Model would transform the present situation and give a much-needed boost to the teaching and learning of Chinese in Australia.

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