

Developing teachers in Difffluence of Chinese Language and Chinese Character-based Teaching

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Outline

1. Research objective
2. Research questions
3. Background
4. Pilot study
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Research objective

- The aim of this research is to develop Chinese teachers' instructional skills in difffluence of Chinese language and Chinese character-based teaching.

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Research questions

1. Is the difffluence of Chinese language and Chinese character-based teaching able to enhance CFL learners' literacy?
2. Do Chinese teachers think the instructional mode of Chinese character-based teaching effective to improve CFL learners' literacy?
3. What are CFL students' viewpoints about learning Chinese characters specifically?

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Background

- The debate has been witnessed in the history of teaching Chinese characters. (Lam, 2011)
- Nowadays, many Chinese teachers train CFL learners' four abilities (listening, speaking, reading, and writing) at the same time.
- However, the students in non-Chinese character cultural sphere (ex. US, Europe, Canada...) are not interested in learning Mandarin because of poor Chinese literacy.
- Therefore, some researchers (Jiang, 2007; Du,2007; Ye,2000) claim that Chinese language (listening and speaking) and literacy should be developed difffluently.

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Language and Chinese-character Teaching

- Language and literacy teaching is to train learners' language and literacy abilities.
- If teachers cannot differentiate and coordinate these two instructions, they would not deal with the relation and interaction between them.

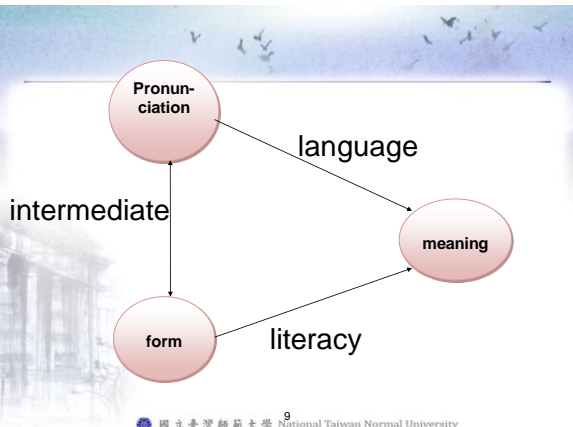
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Teaching of language ability

- Language is the system of audio symbol of applying 'sound' to present 'meaning'.
- Human uses 'mouth' and 'ear' to process **communicative tools**.
- From individual to the whole, people have the ability to apply these devices.
- In other words, people are able to 'listen' and 'speak', which are **language ability**.

Teaching of literacy

- The essence of Chinese-character is 'form', not 'pronunciation'.
- Chinese-character is the system of visual symbol of applying 'form' to present 'meaning'.
- Human uses 'eye' and 'hand' to process **communicative tools**.
- The essence between language ability and literacy is different.



Difference between language ability and literacy

Difference	Language ability	Literacy
organs	Audio organs and articulator	Visual organs and arms and hands

Difference between language ability and literacy

Difference	Language ability	Literacy
Function	• To satisfy people accepting and sending language message	• To satisfy people accepting and sending message of words
	• Face to face oral communication	• Across space-time written communication

Difference between language ability and literacy

Difference	Language ability	Literacy
Acquired / learning ways	1. Natural acquisition	1. learning
	2. Do not need one's help	2. To need one's help
	3. Need language environment	3. Applying words
	4. Start from a complete sentence	4. Start reading single character

Related studies - 1

Author	Method	Subjects	Time-scale	Results	Characteristic
白樂桑 JOel Bellaserl (1996) - Textbook of Chinese literacy	Use Chinese-character in teaching, but does not present the guidance of instructional ways	CFL college students of basic level in the Department of Chinese Literature at the University of Paris Seventh	1986~1990	The aim was to use as many as Chinese words in the text so that many uncommon words of daily life were presented. Thus, the Chinese characters which were demonstrated in the textbook were too difficult for novel CFL students.	The book applied "Chinese character-based" to compile. Thus, the book focuses on Chinese literacy and does not cover language ability.

Related studies - 2

Author	Method	Subjects	Time-scale	Results	Problem
魯健驥 Lu Jian-Ji (2003)	1. Diffuence of oral program (listening and speaking) and written program (reading and writing) 2. Teaching stressed on listening and speaking and changes to literacy	Foreign students of the Chinese language center at the Peking University	unknown	It is a theoretical research. Thus, it only concluded that reading ability could be divided extensive and intensive reading skills, and do not focus on writing ability.	Do not show clear traits.

Related studies - 3

Author	Aim	Method	Subjects	Time-scale	Results	Problem
Zhang Jin-lan 張金蘭 (2009)	To conduct listening, speaking, reading, and writing together, but focus on simultaneous read and write	Achievement test	9 Novel foreign students	8 weeks, 120 hours from September to November 2009	The diffuence of reading and writing positively improved the learners' reading and writing ability. 2. And the performance of the empirical group was significant better than control group.	1. The study did not present teaching process and teaching strategy. 2. The test did not show specific sections for reading and writing individually. 3. Sample is small.

Related studies - 4

Author	Aim	Method	Subjects	Time-scale	Results	Problem
Xin Jun 邢軍 (2010)	To implement the diffuence of oral practice and literacy in the on-line class. One class was 50 minutes, first 30 minutes was oral practice. The other 20 minutes was to develop literacy.	On-line achievement test	40 CFL high school learners(K9-K10)	One academic year from September 2008, five classes in a week, one class in a day.	1. The course of diffuence of language ability and literacy was beneficial for American learners. 2. The students' Chinese literacy was improved.	1. This paper only shared teaching experience, did not carry out the empirical research. 2. It was the on-line course, but did not describe the process.

The problem of recent related studies

- The researches about the diffuence of Chinese language ability and literacy (ex. Lu, 2003; Huang, 2003; Chan, 2008; Xin, 2010) did not describe clear and concrete curriculum, schedule of course, and teaching methods. Thus, it could not know whether or not teaching strategies which were applied were effect to children's learning achievement.
- Sample is small (ex. Chan, 2008; Xin, 2010).
- The Chinese characters were uncommon daily words so that the learners did not achieve significant learning result (ex. JOel Bellaserl, 1996; Huang, 2003)

Learning Characters by components

- Essence of Chinese character
Components = meaning + pronunciation

- What is component?
Component is part of a character.
In terms of written, it would not connect to other parts.
It cannot be disassembled to smaller parts.

(Cheng and Wu, 1994)

- Rule of combination

-Chinese character is assembled by components with particular strokes in a square space.



Design of Teaching Material

- ❖ 80% of Chinese characters were made by pronunciation and meaning.

筆劃 stroke

Subword Paraword Elemental word complex

子字 代字 元字 類字

(一)(一) (一)(一) (一)(一) (一)(一)

(一)(一) (一)(一) (一)(一) (一)(一)

部件 radical

片字 基字

Partial word Fundamental word

合字

Complex word

(一)(一)

➤ **Phonetic component**

- ❖ If the sound of Chinese character is the same as its component, it is called 'character of phonetic component'
- ❖ Example:
直 zhi2 → 值、植、殖
巴 bai1 → 吧、把、爸、芭、疤、芭

➤ **Semantic component**

- ✓ If the meaning of a Chinese character is represented by its component, it is called 'character of semantic component'.
- ✓ And use its semantic component to assemble into a character, it is called 'derivative character'.
- ✓ Example: a semantic component (雨 yǔ, rain), it can be assembled into Chinese characters such as 雪 xuě (snow)、雲 yún (cloud)、雷 léi (thunder).

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Pilot Study

Research method

1. 2 + 1 Diffidence of Chinese language and Chinese character-based teaching
2. teacher training
3. Platform of literacy test
4. A pre-test and a post-test of literacy exam
5. Student and teacher interviews

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Sample of teaching material – 149 words were from Living Mandarin (生活華語)

Radical	Derivational characters in text	Note
[-學]T	興學覺	derivative character
[飠]	飯軟	derivative character
亻	你恁他什借候們便貨件夜做個	derivative character
算	算筆算盤	derivative character
一	是國與同哥師今歲可借題天上下拿給選三喜貴得百司啊型打前籃歌聽剛會	derivative character
人	今以拿給來喝茶參會	derivative character
十	什來早千做個聽	derivative character
也	他她	derivative character
口	叫呢國與名同嗎哥船只可如開拿給客選喜歡吃臺嗎咖啡店商哪司吧啊員點常做個唱歌加會囉	derivative character
女	好姓她姐姑媽要妹	derivative character
子	好字學	derivative character

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Platform of Chinese literacy test

1. One Chinese character shows on the screen for each time.
2. The subject has 15 minutes to respond.
3. Two steps for response, the first part is to pronounce the character on the screen. Next is to make a phrase or a sentence with the character.
4. The system records the student's answer and submit it to the e-cloud. Then, it moves to the next item automatically.

Each question is one Chinese character, which shows on the screen.

Record voice automatically

Record

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Sample of subjects

- 12 CSL (Chinese as a second language) classes in the camp were involved in the research.
- 10 to 14 CSL students in one class. They were all beginners.
- The age of the learners were from 14 to 20.

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Steps of Chinese character-based teaching

1. Asking students to find out same components of Chinese characters which were provided by teachers.
2. To explain place and meaning of the components of Chinese characters to the students.
3. To guide students to pronounce characters.
4. To guide students to practice writing characters based on stroke order.
5. To guide students to use Chinese characters they learn to make words.

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Handout for practice stroke order



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Pre-test & Post-test

- The platform of Chinese literacy test were adopted into a pre-test and a post-test.
- 120 Chinese-characters were randomly selected from 149 characters to the test. 120 characters were divided half and half randomly to a pre-test and a post-test. Thus, both pre-test and post-test had 60 characters.
- The pre-test was conducted before the intervention. And the post-test was implemented after the research treatment.

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Result

Table 1 Mean and SD of a pre-test and a post- test (N=84)

Variables	Pre-test		Post-test		T
	Mean	SD	Mean	SD	
Scores	49.36	45.54	52.86	46.41	-2.182*

*P < 0.05

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Outcome of the interviews from the students and the teachers

Table 2-1 View about the Chinese character-based course

Theme	Students (N=20)	Teacher (N=12)
Chinese character-based course	<ul style="list-style-type: none"> • Learning Chinese-characters specifically was really helpful. According to previous learning experience in our countries, we only increased listening and speaking abilities, but did not enhance reading and writing abilities and merely recognize one or two Chinese-characters. • Chinese-characters course improved the students' life in the real Chinese world, such as the students could read menu and order food for themselves in the restaurant. 	<ul style="list-style-type: none"> • One hour Chinese-character class in a day really helped the students to recognize more words than traditional teaching to develop 4 skills at the same time. After the students learn Chinese-character particularly and intensively, they could read better. The course could make up the deficiency of CSL/CFL weakness of literacy.

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Table 2-2 View about Chinese-character component teaching

Theme	Student (N=20)	Teacher (N=12)
Chinese-character component teaching	<ul style="list-style-type: none"> • Chinese-character component is easy to help them to remember characters and associate with other similar characters, such as 也, yě, 他, tā, 她, tā. 	<ul style="list-style-type: none"> • Using the component teaching approach effectively trained students to remember Chinese-characters quickly. Thus, the students' literacy was enhanced significantly.

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Table 2-3 View about teaching material and activity.

Theme	Student (N=20)	Teacher (N=12)
Teaching material and activity	<ul style="list-style-type: none"> • Teachers used some websites of learning Chinese-characters specifically to teach characters. They were really helpful and interesting. • Besides, they applied some dynamic activities such as 'match game', which was to make components as correct characters, and writing a short-essay. 	<ul style="list-style-type: none"> • Assistive technology is helpful tool in teaching. Nowadays, many free Chinese-character learning websites are available to teaching students to learn characters. The students also like these new technological much. • Additionally, some classroom activities are effective to assist and evaluate their learning such as 'match game' and 'component association', which was to provide one component to make students to associate other similar characters.

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Table 2-4 View about difficulties

Theme	Student (N=20)	Teacher (N=12)
Difficulties of learning Chinese-character	<ul style="list-style-type: none"> Chinese-characters are very complex. If we do not have many opportunities to use them, we will forget them soon after we return to our countries. 	<ul style="list-style-type: none"> The short intensive camp were six weeks, and the Chinese-character classes only two weeks. Thus, one hour Chinese character-based learning was still limited and rush. During one hour class, we had to teach, let students practice, and evaluate their learning. The time was still very restricted so that it was difficult for teachers to extend more knowledge.

Summary of the pilot

Q1: Is the difference of Chinese language and Chinese character-based teaching able to enhance CFL learners' literacy?

A:

1. According to result, the outcome of the students' literacy was significant different between the pre-test and the post-test.
2. The score of the post-test was significantly higher than the one of the pre-test.
3. Thus, it can be concluded that the CSL youth learners improved their literacy after accepting the research intervention.

Q2: Do Chinese teachers think the instructional mode of Chinese character-based teaching effective to improve CFL learners' literacy?

A:

1. The teachers reflected that the Chinese character-based instruction certainly enhanced CSL learners' literacy.
2. The students could recognize and remember more characters.
3. However, the class time was very restricted. It was not enough for the students to do more practice.

Q3: What are CFL students' viewpoints about learning Chinese-characters specifically?

A:

1. The students reflected that only learning Chinese-characters significantly improved their literacy.
2. Especially, they could read menu themselves when they ordered food in the restaurant.
3. Thus, it could be found that if the CSL students' literacy was enhanced, they could access to Chinese real world easily.

Further amendment for the main study

In terms of pilot, some amendments have been taken place in the main study as

- To extend the duration of the research intervention for Chinese Character-based teaching.
- To focus on developing CFL learners' literacy.
- To build concrete mode of Chinese character-based teaching.
- To use assistive technology to guide Chinese Character-based teaching.

Main study

Subjects:

1. To take place in a public school in Southern California.
2. 10-12 year-old CFL children in FLES (Foreign Language in Elementary School) program; Mandarin is the foreign language in this school.
3. Three classes engage in the research.
4. 28 to 32 students are in one class.

Timescale:

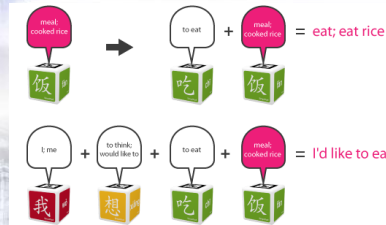
1. 30 lessons from mid-September 2013 to mid-November 2013
2. 1 class in a day
3. 40 minutes for one class
4. 3 classes in a week.

Main study

Method:

1. Two models of Chinese character-based teaching by using 'ChineseCUBES'
2. Developing 30 lesson plans for each model
3. 3 days teacher training
4. A pre-test and a post-test for evaluation of literacy
5. Student and teacher interview

Chinese Cubes



CPS (Character - Phrase - Sentence) = fun and easy.

<https://www.youtube.com/watch?v=t7Xpk25pHLk>

- With only 200 ChineseCUBES Character Cubes, someone can explore and learn more than 30,000 commonly used Chinese phrases and sentences in an evolving and spiraling sequence.

- The Chinese characters were selected from both China's new Chinese Language Proficiency Test (Hanyu Shuiping Kaoshi, abbreviated HSK) Level 1 vocabulary and Taiwan's Test of Chinese as a Foreign Language (TOCFL) rudimentary level vocabulary to serve as the foundation of this teaching material.

Research intervention

1. **Experimental group A:** Classroom teaching for Chinese character-based class by using ChineseCUBES for 30 lessons.
2. **Experimental group B:** On-line teaching for Chinese character-based class with using ChineseCUBES by means of ADOBE CONNECT for 30 lessons.
3. **Control group:** Regular Chinese language class without specific Chinese character-based learning, one class in a day, three classes in a week.

Developing 30 lesson plans for each teaching model

- Classroom teaching
- On-line teaching
- Both of these two models have 5 themes including
 1. '我的家my family',
 2. '我有一本書I have a book'
 3. '我喜歡吃蘋果I like to eat apples',
 4. '現在幾點鐘 What time is it?',
 5. '喂！你在哪裡？Hello! Where are you?'.

3 days teacher training

- Developing teaching ability to conduct Chinese character-based teaching.
1. 6 teachers attended the training.
 2. Building knowledge of Chinese character-based instruction.
 3. Training teachers to conduct component teaching.
 4. Training teachers to use ChineseCUBES to teach Chinese characters for both classroom and online instructional modes.
 5. Training teachers to implement the teaching plans.

Pre-test and Post-test

- To use the platform of Chinese literacy test
- Evaluating whether or not the learners' literacy improve before and after the research intervention
- To select 120 Chinese character randomly from 200 ChineseCubes characters. 60 characters are assigned respectively to a pre-test and a post-test.
- A pre-test is conducted before the intervention. And a post-test is held after the research treatment.

Interview

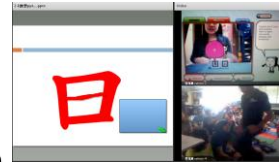
- Student and teacher interview will be conducted in the end of research intervention.
- The aim of the interview is to study in-depth to view whether or not teachers and students think Chinese character-teaching works effectively to enhance CFL learners' literacy.

Video Clips of teaching demonstration



Classroom teaching

On-line teaching



Future collaboration with PSU - 1

- **Chinese character-based teaching training**
1. NTNU can offer a collaborated teacher training program by the on-line Adobe Connect conference room.
 2. NTNU can provide the models of the instruction including on-line and classroom.
 3. NTNU can provide teaching materials including textbooks and assistive technology .

Future collaboration with PSU - 2

- **Internship program of teaching Chinese character-based class**
1. NTNU can send the interns to PSU to conduct the Chinese character-based teaching.
 2. NTNU can provide the interns to carry out the on-line Chinese character-based teaching to CFL students in PSU.
 3. NTNU can offer the internship program and Chinese character-based class to K-12 schools which have built partnership with PSU.

Thanks for your attention!

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