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

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Outline
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3. Background
4. Pilot study
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Research objective

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

Research questions

1. Is the diffuence 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?

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 diffuently.

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.
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

<table>
<thead>
<tr>
<th>Difference</th>
<th>Language ability</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To satisfy people accepting and sending language message</td>
<td>To satisfy people accepting and sending message of words</td>
</tr>
<tr>
<td></td>
<td>Face to face oral communication</td>
<td>Across space-time written communication</td>
</tr>
<tr>
<td>Acquired / learning ways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Natural acquisition</td>
<td>1. learning</td>
<td></td>
</tr>
<tr>
<td>2. Do not need one’s help</td>
<td>2. To need one’s help</td>
<td></td>
</tr>
<tr>
<td>3. Need language environment</td>
<td>3. Applying words</td>
<td></td>
</tr>
<tr>
<td>4. Start from a complete sentence</td>
<td>4. Start reading single character</td>
<td></td>
</tr>
</tbody>
</table>
The problem of recent related studies

- The researches about the diffluence 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 Bellasser, 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.

- Rule of combination
  Chinese character is assembled by components with particular strokes in a square space.
Design of Teaching Material

- Phonetic component
  - If the sound of a Chinese character is the same as its component, it is called 'character of phonetic component'.
  - Example: 直 zhi → 值、植、植

- 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).

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

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

<table>
<thead>
<tr>
<th>Radical</th>
<th>Derivational characters in text</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>生</td>
<td>学</td>
<td>character</td>
</tr>
<tr>
<td>生</td>
<td>独</td>
<td>character</td>
</tr>
<tr>
<td>火</td>
<td>燃</td>
<td>character</td>
</tr>
<tr>
<td>豕</td>
<td>夜</td>
<td>character</td>
</tr>
<tr>
<td>人</td>
<td>今</td>
<td>character</td>
</tr>
<tr>
<td>人</td>
<td>十</td>
<td>character</td>
</tr>
<tr>
<td>人</td>
<td>女</td>
<td>character</td>
</tr>
<tr>
<td>口</td>
<td>叫</td>
<td>character</td>
</tr>
</tbody>
</table>

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.

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.

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.

Sample of teaching material

- 1980% of Chinese characters were made by pronunciation and meaning.
- 80% of Chinese characters were made by pronunciation and meaning.

Pilot Study

Research method

1. 2 + 1 Diffuence 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

Platform of literacy test

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

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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>49.36</td>
<td>52.86</td>
</tr>
<tr>
<td>SD</td>
<td>45.54</td>
<td>46.41</td>
</tr>
</tbody>
</table>

- \( \text{Outcome of the interviews from the students and the teachers} \)

**Students (N=20)**

- **Teaching Material and Activity**
  - 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.

**Teacher (N=12)**

- **Teaching Material and Activity**
  - 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.

**Table 2 - View about Chinese character component teaching**

- The pre-test was conducted before the intervention. And the post-test was implemented after the intervention. The pre-test and post-test were adopted into a pre-test and a post-test.

**Table 2 - View about Chinese character-based course**

- After the research treatment, the post-test was conducted before the intervention. And the post-test was implemented after the intervention.
To take place in a public school in Southern California. However, 28 to 32 students are in one class.

Three classes engage in the research.

According to pilot, some amendments have been made.

## Table 2-4: View about difficulties

<table>
<thead>
<tr>
<th>Theme</th>
<th>Student (N=20)</th>
<th>Teacher (N=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulties of learning Chinese character</td>
<td>• 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.</td>
<td>• 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 rushed. 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.</td>
</tr>
</tbody>
</table>

## Summary of the pilot

**Q1:** Is the diffuseness 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

- With only 200 ChineseCUBES, 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.
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.

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

https://www.youtube.com/watch?v=tXpq25pHLk

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

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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