

# Available online at www.ejal.eu

EJAL

Eurasian Journal of
Applied Linguistics

Eurasian Journal of Applied Linguistics 1 (2015) 59-75

# Three approaches to beginning Chinese instruction and their effects on oral development and character recognition

Frederick Poole a, Koyin Sung a \*

a 0720 Old Main Hill, Utah State University, Logan, Utah 84322-0720, USA

#### **Abstract**

Developing Chinese character knowledge is often labor intensive and time consuming. Therefore, there is often an imbalance between character instruction and training in other language skills due to how much instructional time is occupied by learning characters. A few teaching approaches are frequently used in the classroom to accommodate this problem. This pilot study intended to compare these approaches in an experimental setting to investigate the effectiveness of them on learners' oral and character recognition performances. This study involved nine first-year learners of Chinese at a university in the United States. Data collection of this study included the results of character quizzes and oral assessment. The participants and their teachers were also given a survey regarding their perceptions towards each of the instructional approaches. The findings illustrated that some of the instructional approaches helped develop the participants' oral skills more rapidly than the rest, while some approaches were more effective in aiding the development of character recognition.

© 2015 EJAL & the Authors. Published by *Eurasian Journal of Applied Linguistics (EJAL)*. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (CC BY-NC-ND) (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: Chinese language beginners; Pinyin; character recognition; character writing; university level

# 1. Introduction

Learning any language as a beginner could be challenging because, unlike intermediate or advanced learners, who have developed a foundation in the target language, beginners have only their native language and script to rely on as a reference. For learners whose native language is English, learning Chinese as a beginner can be especially difficult because the Chinese script does not use an alphabet (Everson, 1998). To learn Chinese characters, learners must become aware of the characters' visual shapes, learn stroke orders, and develop an understanding of the radicals' functions and positions within a character (Everson, 2009; Feldman & Siok, 1999; Hayes, 1988; Perfetti, Ying, & Tan, 2005). Since developing character knowledge is often labor intensive and time consuming, much instructional time is occupied by learning characters, which results in an imbalance between character

http://dx.doi.org/

 $<sup>^{\</sup>star}$  Corresponding author. Tel.: +1-435-797-9182 E-mail address: ksung124@yahoo.com

instruction and training in other language skills. A few teaching approaches are frequently used in the classroom to address this problem. This pilot study intended to compare the effect of these approaches in an experimental setting on learners' oral and character recognition performances.

The smallest unit of a character is the stroke. A character's complexity is measured by the number of strokes that it contains. For example, the character, 字 (zi4, character), has six strokes, whereas the character, 警(jing3, warn), has 19 strokes. Each character also has a specific stroke order, and character learning may be facilitated through writing characters with the proper stroke order (Guan, Liu, Chan, Ye & Perfetti, 2011; Yu, Gong, Qiu & Zhou 2011). However, reproducing the proper stroke order is very difficult, especially with characters containing more strokes. As a result, learners are often seen writing characters with random sequences (Tsai, Kuo, Horng & Chen, 2012).

After strokes, the next largest structure of a character is the radical. Nearly 90% of the most common characters are phonetic compounds, which contain two radicals: a phonetic radical, which provides clues on the pronunciation, and a semantic radical, which gives hints on the meaning (Wang, et al., 1986). Supposedly, learners who understand the function of these radicals learn characters more effectively (Hayes, 1988; Shen & Ke, 2007). However, though radicals provide clues, they are not always transparent (Feldman & Siok, 1999). For example, the silk radical \$\frac{1}{2}\$ found on the left side of the character \$\frac{1}{2}\$(gei3, give) occupies the position usually reserved for the semantic radical, but it has no apparent relation to the meaning of \$\frac{1}{2}\$, which is "to give." Phonetic radicals are even more unreliable, as they provide an exact cue of the phonetic properties of the character only 26% of the time (Fan, Gao, & Ao, 1984). For example, \$\frac{1}{2}\$(da3, hit), \$\frac{1}{2}\$(ding4, reserve) and \$\frac{1}{2}\$(ting1, hall) all share the same phonetic radical, yet they are pronounced differently. Therefore, using the knowledge of radicals to facilitate character learning is limited and so learners often feel frustrated when learning the components of characters.

To address the challenges of learning characters, some researchers have suggested delaying character introduction in beginner classes and focusing on the teaching of Pinyin, the Romanized transliteration of the characters pronunciation (Everson, 2009; Ye, 2013). On the other hand, a different group of researchers advocate character writing practice as an effective way to learn Chinese in a beginner class (Tan, Spinks, Eden, Perfetti, & Siok 2005; Tso, Au, & Hsiao, 2012), while another group of researchers proposes focusing on character recognition rather than production to reduce the burden of character learning (Allen, 2008; Xu & Jen, 2004). The Literature Review section discusses studies related to the three teaching approaches suggested by the researchers.

# 2. Literature review

# 2.1. Focus on Pinyin [FoP]

Pinyin is the Romanized transliteration of spoken Chinese. Although there are exceptions, most of the letters in the Pinyin alphabet have similar sounds to their counterparts in the English alphabet. These similarities make it reasonable to assume that learners who use Pinyin would have an easier time developing oral proficiency than those who study only characters. A study conducted by Everson (1988) compared reading speed and comprehension between learners reading Pinyin and characters. He found that first-year learners performed better on reading tasks when the text was presented in Pinyin rather than in characters. The results of this study suggest that the learners were able to acquire and recall vocabulary more effectively when the script was familiar to them. Another study conducted by Packard (1990) also showed the effectiveness of replacing the learning of characters with Pinyin in aiding Chinese learning. Packard compared two learning groups: one that received immediate character instruction, and another that received what he called "lagged character instruction." During the lagged character instruction, Packard used Pinyin to teach Chinese phonetics and vocabulary. The study results showed that the "lagged" group was more fluent in spoken Chinese and better at discriminating sounds. As a result of the positive learning results of using Pinyin instead of characters in the aforementioned studies, and that Chinese native speakers often rely on their oral understanding of the language to develop reading skills (Dew, 1994), researchers, such as Packard suggest that learners of the Chinese language should focus on oral communication before they learn characters.

# 2.2. Focus on writing [FoW]

Due to the complexity of characters, many teachers place an emphasis on character writing in the classroom (Tse, Marton, Ki, & Loh, 2006). Allen (2008) found that even in a language program that claimed to focus more on oral skills and less on character writing skills, learners reported spending an average of 32% of their class time writing characters. Also, a significant amount of research has demonstrated the positive effects of writing practice on Chinese learning (Guan, Liu, Chan, Ye & Perfetti, 2011; Tan, Spinks, Eden, Perfetti & Siok, 2005). A study found that by requiring learners to write characters instead of simply recognizing characters, learners performed better on reading tasks (Guan et al., 2011). Guan and colleagues suggested that this was a result of motor memory facilitating recollection of characters. They argue that "once motor memory has been learned and stabilized, it can last for very long periods of time" (Guan et, al., 2011, p. 50). Although research showed positive results for the FoW approach on reading and writing performances, there is no study specifically on the effect of the FoW Approach on developing oral skills.

#### 2.3. Focus on recognition [FoR]

Since Chinese writing practice occupies a large portion of study time, some researchers suggest that instructors focus on recognition of characters rather than production (Allen, 2008; Xu and Jen, 2004; Ye, 2011). In this way, characters can still

be taught, but the time constraints that writing characters pose can be reduced. A few studies investigated the FoR approach. For example, a study conducted by Harrington and Jiang (2013), who asked learners to focus on character form through a recall task at the beginning of each lesson, found that by stimulating the retrieval of a character's form, learners were forced to lend attention to the character, and subsequently, their performance on character recognition tasks increased. different study, Xu and Jen (2004) developed a word-processing program that required learners to manually select the correct characters. This is in contrast to typical character input programs which automatically select the most common characters related to the Pinyin combinations selected. The authors argued that by constantly being required to select the correct characters, learners develop character recognition skills. In addition, by not requiring the learners to write, there is more time in the classroom for the development of oral skills. Their study results showed that learners who used the processor were able to produce characters on the computer with an average accuracy rate of 94.5% in contrast to an average accuracy rate of 60.7% for learners who produced the characters with a pen. In terms of recognizing characters, learners in the word-processing group accurately recognized an average of 62.3% of the characters compared to only 48.7% in the handwritten group. The authors concluded that since learning to write Chinese characters is so difficult, learners are exposed to less vocabulary which ultimately slows their language development.

Advocates of the *FoR* Approach (e.g. Allen, 2008), claim that the value of being able to write characters from memory does not reflect the cost of developing the skill. Learners should concentrate on character recognition so that they have sufficient time to develop reading and oral skills in Chinese.

The literature showed that different studies found results which supported one of the aforementioned three beginning Chinese teaching approaches; however, there is not a single study which compares all three approaches using the same teaching materials and learning objectives. This study attempted to fill this gap in the current literature.

#### 2.4. Teacher and student perceptions

Although there is research supporting each of the approaches to beginning Chinese instruction, in order to offer satisfactory instruction, teacher and student perceptions must also be taken into account. Ye (2013) conducted a survey of 914 Chinese as a foreign language (CFL) students' and 192 CFL teachers' beliefs of the kind of instruction Chinese beginners should receive. Ye found that 66% of students and 71% of teachers believed in the FoW approach in which characters are taught immediately. Ye explained that the result could be due to the fact that the majority of the students in the study only received and knew about the FoW approach. Once Ye introduced other approaches to the students, their view changed. The students thought the FoP

approach could be beneficial as they would gain more confidence through speaking, which then would carry over when learning to read and write.

Wang and Leland (2011) carried out a survey on student perceptions regarding useful activities for developing Chinese language skills. They found that all thirteen of the participants in the survey believed that writing directly affected their ability to recall characters. These results seem to suggest that the learners preferred the *FoW* approach over the others.

While many studies investigated the effectiveness of different beginning Chinese teaching approaches, studies that look into teacher and learner perceptions of these approaches such as the two studies mentioned above are few and far between. However, teacher and learner perceptions toward teaching approaches are deemed important. If teachers and learners do not appreciate the kinds of teaching approaches used, maximum learning cannot occur. This study intended to contribute information to this missing portion in the research field.

# 3. Research questions

Research has shown that instruction with FoP, FoW, or FoR can be beneficial to beginners of Chinese. However, there is no study like the current study, which compares all three approaches in a controlled classroom environment. The first purpose of this study was to compare the effects of the three instructional approaches for beginners of Chinese on their language development. The second purpose of this study was to learn the perceptions that teachers and learners have of these approaches. The two research questions posted are: (1) What are the effects of the FoP, FoW, and FoR Approaches on Chinese beginners' development of oral and character recognition skills?, and (2) What are teacher and student perceptions on FoP, FoW, and FoR instruction?. For question one, the effects of the approaches on all language skills, except character production, were included. Investigation of character production was omitted due to the characteristics of the FoP and FoR Approaches, which do not require the learning of character writing.

# 4. Method

This study compared character recognition and oral fluency development under three instructional conditions: instruction with FoP, FoW, and FoR. Nine participants were divided evenly among the three instructional groups, and each group was given four, 30 minute sessions. All three instructional groups contained the same vocabulary, grammar, and communicative goals for each lesson. They differed only in the presentation of the characters. A detailed description of each method is provided in the *Instructional Methods* section. At the end of the first three sessions, the learners were given a character recognition quiz, and at the end of the fourth session they were given a comprehensive character recognition quiz, an oral assessment, and a perception survey.

#### 4.1. Learner participants

Nine participants of Chinese from a university in the southwestern United States volunteered for this study. These participants had no previous experience learning Chinese, and thus were considered to be beginners of Chinese. The participants ranged in age from 18 to 26. All of the participants spoke English as their first language and all but two of them claimed to have experience learning a second language. Their second languages consisted of Spanish and Italian.

# 4.2. Teacher participants

The instructors in this study were student teachers in a fourth-year Chinese teaching course called "Teaching Chinese as a Foreign Language." Two of them had studied Chinese for five years or longer, and the third teacher was a returned missionary who had served in Taiwan for two years. Each teacher adopted one of the instructional methods. All three of the teachers had received a teaching plan and training in their instructional condition prior to teaching. The lesson plan for all three instructional conditions were structurally the same, the only difference was in the method of presenting and teaching the Pinyin, character recognition, and character writing.

#### 4.3. Instructional methods

In this study, the participants were exposed to 50 words over four sessions. The first session included 20 words, and the following three sessions contained 10 words each. The first session had 20 words because the first ten numbers were taught with vocabulary for introductions. While teaching 20 words in first session undoubtedly contributed to a higher learning load, it was deemed necessary because it allowed for the use of communicative tasks in later sessions. Furthermore, because the vocabulary in each session was reviewed by subsequent lessons, the vocabulary in the first session received more review time. In the second session, participants learned how to talk about their family. In the third session, they learned physical descriptions which they used to describe their family members. In the final session, they learned personality and emotions, which they also used to describe their family members. All four sessions were designed so that they incorporated vocabulary from the previous lessons. For each lesson, the instructors first gave an input session, which occupied between 10 and 15 minutes of the class, to introduce new vocabulary. Following the input session, the participants were assigned a vocabulary and grammar task to complete with a partner, orally. Finally, all three groups (FoP, FoW, and, FoR) received the same vocabulary and content in their four sessions, however length of time that was spent on vocabulary and content was varied. Details on the time allotted for each activity will be explained in the following sections.

# 4.3.1. The FoP group

For the *FoP* group, characters were presented on both the PowerPoint presentation and on the learner handout. However, in both the PowerPoint and on the handout,

Pinyin was placed above every character. This group of learners were expected to learn the phonetic rules of Pinyin via the input session. The teacher in this group focused on developing Pinyin skills, and thus would correct tonal and pronunciation errors. When introducing new words, the teacher made an effort to point out letters in Pinyin that did not follow the phonetic rules of English. For example, "c" in Pinyin is pronounced the same as the "ts" in "cats." Also, during some pair work activities participants were asked to label a picture or to write a vocabulary word using Pinyin. It is also important to mention that because characters were not taught in this group, approximately 10 minutes extra per session was allotted for the speaking activities. Finally, some English was used during instruction, but the teacher of this group strived to remain in the target language.

#### 4.3.2. The FoW group

In the FoW group, the instructor's main goal was for participants to learn how to write characters. The instructor began the class with the input session, but instead of doing pair work directly after the input session, the participants were taught stroke orders and radicals. When teaching characters, the teacher first reviewed the rules regarding stroke order, and then wrote each character stroke by stroke. The participants were asked to follow the teacher as she wrote. Upon completion of learning the stroke orders, the learners were asked to write each character two times. Next, the teacher explained the function of the radicals in the compound characters. When teaching stroke orders and radicals, the teacher used English to ensure that the information was understood. Finally, when asked to write a word during an activity, the participants were encouraged to write characters. Students in this group were given pair activities after completing the writing exercises; however, due to time constraints, these activities were limited to the last five minutes of the session.

# 4.3.3. The FoR group

In the FoR group, the teacher attempted to promote development of both oral skills and character recognition but the participants were not pushed to produce characters. Lessons began with the same input activity as the lessons using the FoW and FoP approaches. After the input activity, participants were given a simple matching worksheet, where participants had to match the character to the Pinyin or the character to the English translation. Participants were asked to complete these matching activities as quickly as possible and were allowed to ask for help from the teacher and/or their classmates. When helping a classmate with recognizing a character, participants were encouraged to use English to explain how they remembered the character. By describing the features of the characters that helped them remember the character, the learners were lending more attention to the form of the character. Upon completion of the character recognition task, learners participated in the pair work activities for 10 to 15 minutes. The pair work activities were guided by handouts that contained only characters. The participants did not receive instruction regarding stroke order, but the teacher did draw attention to radicals during the recognition exercises. The teacher in this group pointed out

radicals only when learners were struggling to remember a character. This is different from the *FoW* group which taught every radical. Finally, since the teacher did not need to explicitly explain the radicals and functions of the radicals, he was able to remain in the target language for the majority of the lesson.

# 4.4. Data collection

After each session, the participants were given a character recognition quiz that tested all of the characters learned during the session. Following the completion of the fourth session, participants were given a comprehensive character recognition quiz and oral assessment. Participants were also given a follow-up survey regarding their perceptions about the instructional method to which they had been exposed. The surveys were distributed via email after participants had completed the learning tasks. A survey and group interview was given to the teacher participants after all data had been collected. The survey and the group interview asked the teachers about their opinions of the approach they were assigned to teach and what they thought about their students' learning.

# 4.5. Assessment

For each of the character recognition quizzes, words were written in character form and the participants were asked to write the corresponding English word. All characters taught in the sessions appeared on the quizzes. In all recognition quizzes, one character was worth one point. The first character recognition quiz had a total possible score of 20 points and the second and third character recognition quiz had a total possible score of 10 points. The comprehensive character recognition quiz had a total possible score of 50 points.

The oral assessment used five constructs to measure the participant's oral proficiency levels: fluency, word choice, grammar, pronunciation, and comprehension. The participants were asked 12 questions (eight in Chinese, and four in English). The questions were based on the material that the participants had studied in the previous four sessions. Excluding comprehension, there was a total possible score of 36 points (3 x 12 questions) for each construct. For comprehension, there was a total possible score of 24 points (3 x 8 questions). This is because four of the 12 questions were asked in English. The last four questions of the oral assessment were designed as open-ended questions to let the participants say as much as they could. Since the vocabulary needed to form these questions had not been taught, the questions were asked in English. Table 1 provides a detailed description of how the researchers scored each construct. For the comprehension construct, participants were asked to first translate the questions and then answer the question in Chinese. This was done to ensure that the participants understood the questions.

Score	Fluency	Word Choice	Grammar	Pronunciation	Comprehension
1	3 or more pauses in an answer	Repeats same vocabulary in each answer and no use of adverb	3 or more grammar mistakes	3 or more words are not comprehensible	Translation is incorrect or participant indicates that the question was not understood
2	1 to 2 pauses in an answer	Occasionally repeats vocabulary, only uses one adverb	1 to 2 grammar mistakes	1 to 2 words are not comprehensible	Translation is partially correct
3	No pauses in an answer	Uses novel words and or adverbs	No grammar mistakes	All words are clear and comprehensible	Translation is correct

Table 1: Rubric for Oral Assessment

# 4.6. Data analysis methods

The average scores of the oral assessment and the character recognition quizzes of each group were calculated and are presented in the Results section for discussion. The survey and the interview data were coded by themes which emerged from the data.

# 5. Results

#### 5.1. Assessment results

The average scores of the oral assessment showed that both the FoP and the FoR groups performed better than the FoW group after four sessions of instruction (See Table 2).

Table 2:	Group	Averages	of Oral	Assessment
----------	-------	----------	---------	------------

Group	Fluency	Word Choice	Grammar	Pronunciation	Comprehension
FoP	32.33	33.66	32	35	24
	(89.8%)	(93.5%)	(88.8%)	(97.2%)	(100%)
FoW	20	20	21.33	22.66	20.33
	(55.5%)	(55.5%)	(59.3%)	(62.9%)	(84.7%)
FoR	32.33	31.33	33.33	35	21.33
	(89.8%)	(87%)	(92.6%)	(97.2%)	(88.8%)

This could be explained by the different lengths of time spent on practicing oral skills in the three groups. The FoW group emphasized the practice of writing characters, hence the training for oral skills was cut short, which resulted in the lower oral performance. The FoP and the FoR groups received similar scores; however, the FoP group did slightly better on the word choice construct while the FoR group did slightly better on the grammar construct. The reason the FoP group performed slightly better on word choice than the FoR group could be attributed to the type of instruction the group received. Unlike the FoR group, in which the learners spent time on both recognizing characters and oral practice, the FoP

approach allowed learners to only focus on speaking, which included the training of word choice. It is possible that while the *FoP* group focused on oral communication, the learning of grammatical rules was less emphasized, which explains the slightly lower performance on grammar compared to the *FoR* group.

For the character recognition assessments, the FoW and the FoR groups performed much better on all character recognition quizzes than the FoP group, except for quiz 1.

Group	Quiz 1	Quiz 2	Quiz 3	Final Comp. Quiz
FoP	11	1.66	1.33	9
	(55%)	(16.6%)	(13.3%)	(18%)
FoW	8.33	6	6	30.66
	(41.7%)	(60%)	(60%)	(61.3%)
FoR	12	8.33	6.33	24
	(60%)	(83.3%)	(63.3%)	(48%)

Table 3: Group Averages of Character Recognition Scores

These results could imply that, in general, the FoW and the FoR approaches were more effective in training novice learners the character recognition skill. The FoP group's outstanding performance on quiz 1 could be explained by the content of the quiz. The first quiz contained numbers, whose characters consist of fewer strokes and are significantly easier to recognize than other characters. When comparing only the FoW and the FoR groups, the FoR group performed better than the FoW group on the first three quizzes; however, the difference on the scores between the two groups diminished from quiz 1 to quiz 3. In the fourth quiz, the final comprehensive quiz, the FoW group outperformed the FoR group. This result may signify that the FoR approach had a short-term effect on helping learners to remember characters while the FoW approach had a long-term effect. This result supports Guan et al's (2011) claim that writing (motor memory) facilitates recollection of characters and that it can last for a long time.

#### 5.2. Survey and interview results

# 5.2.1. The learner participants

The survey and the interview results showed that the learners in the FoP group said that the pace of the class was adequate and expressed their excitement at learning to speak. One participant said, "I thought the lessons were very effective since I found myself picking up more than I thought I would." This idea was shared by all of the participants in the FoP group. The learners also particularly enjoyed the speaking activities. They claimed that through the speaking activities they were able to remember vocabulary more effectively. They expressed surprise at their rate of acquiring the oral components of the language. One participant said, "The lessons were easier than I was expecting." Although most of the comments were supportive of only learning Pinyin, one of the learners expressed a desire to focus more on the characters.

The participants in the *FoW* section said that the pace was too quick. One of the learners said, "I think that the pace of the class was a bit too fast, because even though we had a bit of time to review the vocabulary, and practice using it, there was simply not enough of this practice time to make the vocabulary stick." While none of the participants in the *FoW* group directly commented on the length of time it took to write characters, they did complain about the lack of time spent on speaking and listening. One of the learners said that learning Chinese is hard and more focus on pronunciation and tones would have been helpful. Finally, one of the participants in the *FoW* group questioned the usefulness of learning to write characters; she said, "The slide shows with the pictures, Pinyin and characters were very useful—learning how to draw the characters, however, seemed less relevant for our purposes."

In the *FoR* group, the participants also said that the pace was "just right." This group also commented on their excitement at working with characters, even though they were not required to write them. Overall the participants in the *FoR* group were satisfied with the instruction. The participants did not comment on the lack of focus on character writing instruction, and thus it was assumed that this was not a major issue for them.

According to the results, it seems that when the time spent in training different language skills was out of balance, the learners were not totally satisfied with the instruction. For example, even though the participants in the *FoP* group spoke highly about the instruction received and the amount of learning which occurred, one of them expressed the desire for learning characters. On the other hand, the *FoW* group, who did not spend much time developing vocabulary and oral skills, questioned the usefulness of spending time learning mostly character knowledge. The *FoR* group, who received both oral training and character recognition practice, seemed to feel more satisfied with the instruction and had no complaints.

# 5.2.2. The teacher participants

The teachers of each instructional group were given a survey regarding their feelings toward their assigned teaching approach, and after the survey they participated in a group discussion about the effectiveness of their approach. There were two common themes that appeared in both the discussion and in the survey: speaking activities are motivating and character instruction is time consuming.

The teacher in the *FoP* group said that her students really enjoyed learning Chinese, particularly because "they learned fast." This teacher associated much of the success that her students experienced in the class to their opportunity to talk during lessons. She said that because learners had time to practice speaking and making mistakes, they seemed to make progress. Although this instructor was happy about the progress of her students, she said that there was a need to integrate characters into the classroom. She expressed that if she would have emphasized characters more when teaching, by simply pointing them out and drawing attention to them, then the learners may have been more interested in studying characters. This teacher also pointed out that the participants "did not even acknowledge the existence of the

characters" on the PowerPoint. She said that it wasn't until they took the first character recognition quiz that they realized that characters were a key component to learning Chinese. This teacher seems to desire a more balanced teaching approach between oral and literacy skills.

The teacher in the *FoW* group first commented on her students' desire to learn characters. She said, "My students thought characters were fun at first, but after the second session, [the characters] started to become boring." This teacher also noted that even though they spent a significant amount of time learning the proper stroke orders, learners still preferred using their own method of writing characters. She added that learners were only able to use proper stroke order on very basic characters. This finding confirms the statement made by Tsai, Kuo, Horng, and Chen (2012) that reproducing the proper stroke order is very difficult, especially with complex characters and that learners are often seen writing characters with random sequences even though they spend a lot of time practicing writing. The teacher also expressed her frustration multiple times about the length of time spent on writing and concluded that she believed speaking was important and that by not speaking and not communicating, her students were frustrated with the language.

The teacher in the *FoR* group said that his students were more motivated as a result of the speaking activities. He also said that the character recognition activities were particularly helpful because they helped learners connect characters to words. This teacher also found that learning the characters was motivational. He commented on how his students were excited about learning "real" Chinese. Another point that this teacher made, is that when he was delivering the initial input session, his students did not pay attention to the characters. He had to make a conscious effort to draw attention to them; however, after engaging in the recognition exercises they became more interested in the characters. This finding implies that learners who are from a non-logographical language background need to make special effort to link spoken language to characters, and that teachers need to actively search for moments during instruction to help them make this connection. Finally, this teacher concluded by saying that he believed there was a place for character writing instruction during class, but that it should be limited to less than 25% of class time.

# 6. Discussion

In this pilot study, we have attempted to try three approaches for teaching Chinese beginners. To answer the first research question regarding the effects of the three teaching approaches on learners' oral and character recognition performances, this study found that the extensive instruction on character writing in the *FoW* group weakened the learners' oral development. Although the *FoW* group performed at a much lower level on the oral assessment, this does not mean that writing does not have a place in the classroom. It simply implies that the amount of time that writing occupies needs to be closely monitored and limited. An alternative is to reduce the writing time in class and leave it for homework. The other two groups, the *FoP* and

the FoR groups received comparative average scores on the oral assessment, which means that both approaches could be equally effective on learners' oral development. The slight differences in the scores in the word choice and grammar constructs could be attributed to the different emphases on the oral and grammar instruction between the two groups. Since writing does not take place in the FoR and the FoP approaches, these two approaches have time that can be easily adjusted to keep a balance among the five oral constructs in order to maximize learners' oral performance. With respect to the effectiveness of the three approaches on the character recognition quizzes, the results were aligned with other research (Allen, 2008; Guan et. al., 2011; Xu and Jen, 2004; Ye, 2011) that the FoR and the FoW Approaches were both effective methods to teach character recognition. This may be because in a FoR Approach learners can be exposed to characters at higher frequency, since they are not asked to produce the characters (Allen, 2008). The FoW Approach may provide an efficient method for teaching characters, since learners are forced to engage in a deeper level of processing of the characters, as they are asked to write characters and recognize radicals (Guan et, al., 2011). This study also found a difference between the FoR and the FoW groups. The FoR approach seemed to have a stronger but shorter effect on the learners' character recognition skills. On the other hand, the FoW approach seemed to be steadier and had a longer effect on the learners' character recognition learning. This finding confirms the theory that motor memory facilitates recollection of characters and that once characters are learned through motor memory, the learning lasts for a long period of time (Guan et al, 2011). The results found in this study imply that in order to train a beginning Chinese learner who will be well balanced in both oral and literacy skills, adequate time for oral practice and character writing cannot be omitted. As this study showed, focusing on communication without learning characters resulted in higher oral development, but poorer reading skills. In contrast, heavy emphasis on writing without much oral practice resulted in higher literacy skills, but weak oral skills. Only an approach which delivers a balanced teaching of oral and literacy skills would yield an optimum result of learning and a longer positive effect on the development of all skills.

To answer the second research question about the perceptions that the teachers and students had of the three instructional approaches, the approach which received the highest number of positive comments was the FoR Approach. All three learner participants in the FoR groups were satisfied with the instruction. The FoR group spent time on interactive oral practice, whose learning results were probably more immediate and obvious, which made the participants feel accomplished and satisfied. On the other hand, the participants in the FoW group wished for more oral practice. It seems that the lack of oral practice in the FoW approach made the participants less satisfied with the instruction, which showed the level of importance oral communication skills are in the learners' mind. In the FoP group, one participant expressed her interest in learning characters. The one participant who was not satisfied with the lack of character learning could be explained by her learning needs and belief. In sum, the FoR approach, which was more balanced between oral and

literacy practice than the other two approaches, was the most satisfactory method in the learners' opinions. With respect to the teachers' perceptions, while the teachers acknowledged the positive attitudes of the students in the *FoR* group, none of the teachers indicated that writing instruction should be omitted. Instead, they believed in having tightly controlled writing instruction during class time and assigning writing practice for homework.

#### 7. Conclusions

This study set out to determine the best teaching practices for a beginner level Chinese course by comparing three approaches: FoP, FoW, and FoR. This study has shown that the FoR approach helped learners achieve oral skills similarly to those achieved by the FoP group. On the other hand, the FoW approach is deemed the most efficient method of teaching characters. However, this study has shown that while the FoW group outperformed the FoR group on the character recognition test, their gains do not outweigh the benefits of developing both oral and literacy skills seen in the FoR group. These findings challenge the necessity of the FoP and FoW instruction often seen in first-semester Chinese classes. While completely removing pinyin and character writing instruction from the first-semester classes is not recommended, more research is needed to develop a better model of integration of these skills into the classroom.

#### 8. Limitations and Future Research

There were limitations to this pilot study. First, the number of participants in this study was limited. A larger group of participants would have helped make the results more reliable. Another limitation was the short length of instruction. It might be possible that the level of the effects of the three teaching approaches could change over a longer period of time. For example, this study found that the effect of the *FoR* approach was strong and positive on the learners' character recognition performances at first; however, this effect decreased over time.

Although the current pilot study has set up a replicable research design to compare the three commonly seen Chinese beginning instructional approaches, future research is needed to include more participants and conduct experiments which last for at least a semester or longer in order to yield more accurate results. In addition, the amount of content that was presented in each of the sessions was controlled. Future studies can look into different FoP, FoR, and FoW designs, such as including different numbers of vocabulary items and different lengths of exposure to content. For example, a future study can allow learners to progress as fast as the approach allows. In this study all three groups were exposed to only 50 words. If learners in the FoP or FoR group were exposed to 100 words in the same amount of time, it may be possible

that the differences in oral and written assessments would be greater than the current study. Finally, other research is needed to explore new approaches and their effects on learning Chinese for beginners.

#### References

- Allen, J. R. (2008). Why learning to write Chinese is a waste of time: A modest proposal. *Foreign Language Annals*, 41(2), 237-251. http://doi.org/dv8m5d
- Bi, Y., Han, Z., & Zhang, Y. (2009). Reading does not depend on writing, even in Chinese. Neuropsychologia, 47(4), 1193-1199. http://doi.org/dp742w
- Chung, K. K. (2007). Presentation factors in the learning of Chinese characters: The order and position of Hanyu pinyin and English translations. *Educational Psychology*, 27(1), 1-20. http://doi.org/df28sg
- Dew, J. E. (1994). Back to basics: Let's not lose sight of what's really important. *Journal of the Chinese Language Teachers Association*, 29(2), 31-46. Retrieved from http://journal.clta-us.org
- Everson, M. E. (1988). Speed and comprehension in reading Chinese: Romanization vs. characters revisited. *Journal of the Chinese Language Teachers Association*, 23(2), 1-15. Retrieved from http://journal.clta-us.org
- Everson, M. E. (1998). Word recognition among learners of Chinese as a foreign language: Investigating the relationship between naming and knowing. *The Modern Language Journal*, 82(2), 194-204. **Retrieved from http://www.mlajournals.org**
- Everson, M. E. (2009) Literacy development in Chinese as a foreign language. In M. E. Everson, & Y. Xiao. *Teaching Chinese as a foreign language* (pp. 97-111). Boston, MA: Cheng & Tsui Company.
- Fan, K. Y., Gao, J. Y., & Ao, X. P. (1984). Pronunciation principles of the Chinese character and alphabetic writing scripts. *Chinese Character Reform*, 3, 23-27.
- Feldman, L. B., & Siok, W. W. (1999). Semantic radicals in phonetic compounds: Implications FoR visual character recognition in Chinese. In J. Wang, A. W. Inhoff, & H.-C. Chen (Eds.), Reading Chinese script: A cognitive analysis (pp. 19-35). Mahwah, NJ: Lawrence Erlbaum Associates.
- Harrington, M., & Jiang, W. (2013). Focus on the Forms: Form recognition practice in Chinese vocabulary learning. *Australian Review of Applied Linguistics*, 36(2), 132-145. **Retrieved from http://www.nla.gov.au/openpublish/index.php/aral/article/viewFile/3070/3612**
- Hayes, E. B. (1988). Encoding strategies used by native and non-native readers of Chinese Mandarin. *The Modern Language Journal*, 72(2), 188-195. http://doi.org/bp8nm2
- Guan, C. Q., Liu, Y., Chan, D. H. L., Ye, F., & Perfetti, C. A. (2011). Writing strengthens orthography and alphabetic-coding strengthens phonology in learning to read Chinese. *Journal of Educational Psychology*, 103(3), 509-522. http://doi.org/bnf9fr

- Lee, C. H., & Kalyuga, S. (2011). Effectiveness of different pinyin presentation formats in learning Chinese characters: A cognitive load perspective. *Language Learning*, 61(4), 1099-1118. http://doi.org/brxx3g
- Liu, Y., Wang, M., & Perfetti, C. A. (2007). Threshold-style processing of Chinese characters for adult second-language learners. *Memory & Cognition*, 35(3), 471-480. http://doi.org/bt4p64
- Packard, J. L. (1990). Effects of time lag in the introduction of characters into the Chinese language curriculum. *The Modern Language Journal*, 74(2), 167-175. http://doi.org/fnr5d2
- Perfetti, A. C., Ying, L. & Tan, L. H. (2005). The lexical constituency model: Some implications of research on Chinese FoR general theories of reading. Psychological Review, 112(1), 43-59. http://doi.org/c8m93v
- Shen, H. H., & Ke, C. (2007). Radical awareness and word acquisition among nonnative learners of Chinese. *The Modern Language Journal*, 91(1), 97-111. http://doi.org/bkz2zf
- Tan, L. H., Spinks, J. A., Eden, G. F., Perfetti, C. A., & Siok, W. T. (2005). Reading depends on writing, in Chinese. Proceedings of the National Academy of Sciences of the United States of America, 102(24), 8781-8785. http://doi.org/fjdt2s
- Tsai, C. H., Kuo, C. H., Horng, W. B., & Chen, C. W. (2012). Effects on learning logographic character formation in computer-assisted Handwriting Instruction. *Language Learning & Technology*, 16(1), 110-130. **Retrieved from**http://llt.msu.edu/issues/february2012/tsaietal.pdf
- Tse, S. K., Marton, F., Ki, W. W., & Loh, E. K. Y. (2007). An integrative perceptual approach for teaching Chinese characters. *Instructional Science*, 35(5), 375-406. http://doi.org/d5bc7p
- Tso, R. V. Y., Au, T. K. F., & Hsiao, J. H. W. (2012). Writing facilitates learning to read in Chinese through reduction of holistic processing: A developmental study. *Journal of Vision*, 12(9), 530-530. http://doi.org/xzh
- Xu, P., & Jen, T. (2004). Penless Chinese language learning: A computer-assisted approach. Journal of Chinese Language Teachers Association, 40(2), 25-42. Retrieved from http://journal.clta-us.org/
- Wang, H., Chang, B. R., Li, Y. S., Lin, L. H., Liu, J., & Sun, Y. L. (1986). Xiandai hanyu pinlu cidian [Dictionary of the frequency of vocabulary in modern Chinese].
- Wang, J., & Leland, C. H. (2011). Beginning students' perceptions of effective activities for Chinese character recognition. *Reading in a Foreign Language*, 23(2), 208-224. **Retrieved from http://nflrc.hawaii.edu/rfl/October2011/articles/wang.pdf**
- Ye, L. (2011). Teaching and learning Chinese as a foreign language in the United States: To delay or not to delay the character introduction. *Applied Linguistics and English as a Second Language Dissertations*. Paper 21. **Retrieved from** http://scholarworks.gsu.edu/alesl\_diss/21
- Ye, L. (2013). Shall we delay teaching characters in teaching Chinese as a foreign language? Foreign Language Annals, 46(4), 610-627. http://doi.org/xzj

Yu, H., Gong, L., Qiu, Y., & Zhou, X. (2011). Seeing Chinese characters in action: An fMRI study of the perception of writing sequences. *Brain and Language*, 119(2), 60-67. http://doi.org/ejnbpv

# Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the Journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (CC BY-NC-ND) (http://creativecommons.org/licenses/by-nc-nd/4.0/).