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EPI 0010 Foundations of Reading

Assignment: iSearch Paper

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Phase I: Generating a question (What I Know/What I Want to Know)

In a way, I have been formulating my iSearch research question for a significant portion of my life. I am a teacher of Mandarin Chinese. I didn't start out expecting to be a teacher, and definitely not teaching Mandarin Chinese! The opportunity to teach Chinese was something that almost literally fell into my lap. While I have not formally been trained in Mandarin Chinese, I grew up in a family that spoke Mandarin Chinese at home. I am what World language teachers call a "heritage speaker." What that means is, I grew up speaking Mandarin Chinese at home, (acquired the verbal language naturally from being immersed in the environment at home, while speaking and learning English outside the home). So while I can speak almost fluently with a standard accent, I was not otherwise formally trained in Mandarin Chinese while I lived at home. Thus I have always been concerned about an "Achilles' Heel" that I have regarding being a Chinese language teacher.

For a language like Mandarin Chinese, there is an additional level of complexity to learning to be fully proficient in the language – and that is to be able to read and write the characters. This is not a trivial proposition, because (unlike alphabetic systems of language), the written system of characters (with each character being a separate word) is not directly correlated with the pronunciation of the words. Thus reading and writing is a completely separate process that requires an intentional and systematic effort, and does not happen just from speaking the language at home. Because I was not formally trained in Mandarin Chinese, I did not receive a formal education in reading and writing characters. My acquisition of characters was haphazard at best, and characters that I would learn one week would be quickly forgotten the next from lack of meaningful use.

The prior two paragraphs were given as a long introduction to my question: **What is the best way to teach reading and writing in Chinese to preschool and Elementary students learning Mandarin Chinese as a second language?** I know that in China, Taiwan, and other countries in Asia that use the Chinese language, the standard method of teaching the language is rather by brute force memorization. Lots and lots and lots of repetition and writing hundreds and hundreds of each Chinese character until each one has been committed to muscle memory. However, I'm not convinced that this is the best method for teaching the written system to a second language learner, especially a student that does not have a prior background in speaking the language. A secondary question developed based on the age of the students I teach. I teach preschool and elementary aged students. Many of these students are just beginning to learn to read and write in their first language, English. **How would these young students respond to being taught a second system of reading and writing in a language that they are just starting to learn to speak as well?** And finally, **can I use of the theories and techniques that I learn here to more easily learn to read and write Chinese myself?**

Phase II: My Search Process

The pedagogy for Mandarin Chinese cannot completely separate the reading and writing components from the speaking component. The challenge is in balancing the two, and still giving the students something useful they can apply in real life situations once the class has ended. I recently attended two Chinese Teacher's Workshops, one hosted by the Seminole County Public Schools, and another hosted by the Confucius Institute and the University of South Florida. In both of these workshops, Dr. Eric Shepherd discussed how, in his first year Chinese classes, he teaches very little reading and writing. The focus for his First Year class is to develop a working proficiency of speaking. Once they have developed a high speaking proficiency at the end of their first year, then they launch into learning to read and write characters in their second and third years. During the first year, he does introduce some basic characters, some simple characters, called radicals. These radicals are components that can be freestanding characters, but are most often used in combination with other characters to make more complex words. Thus these radicals are "building blocks" for many other characters in the Chinese written system. (These radicals will be very significant in learning to read, as will become apparent later on in this paper). Dr. Shepherd did say that at the end of the first year, his students test lower in character recognition than other classes, but by their second and third years, they acquire characters and develop their proficiency of reading and writing characters more rapidly than their counterparts that learned to speak at the same time they were learning to read and write characters.

After Dr. Shepherd's workshop and demonstration on January 7, I began mulling his method over in my head a great deal. I also considered my own experiences (whether they are challenges or advantages, depending on your perspective) of learning Chinese as a heritage speaker rather than learning from ground zero. I realized something about language acquisition—as a young child learning a language, I learned to *speak* first. In fact, all children, regardless of language, learn to speak their native language first, and they gain a proficiency in speaking long before they learn to read and write the language. If that's the case, and this is how their language is acquired naturally (speaking first, then reading, then writing), then why do we make our students learn to speak and read and write the (second) language all at the same time? It seemed to me that the brain may not multi-task as well, and thus may retain more when it has a foundation of spoken language already established, and THEN adding in the reading/writing. In fact, I e-mailed Dr. Shepherd about his experiences with second language acquisition studies to see if there was a research basis for his methodology of teaching speaking first.

Dr. Shepherd was very helpful in his reply:

"The method we use does mirror what happens when you naturally acquire your first language with some modifications to take into account that when we are learning a second language, we have already learned one set of cultural norms and one way of thinking. This is the primary difference between the two very similar processes. However, if you read studies on cognition, the way the brain works, how memory works, the way language is processed in the brain and the way we learn culture, you will find that the process does not change unless the teacher lets it change. That is why the role of the instructor in constructing and sustaining a target cultural context is critical. If the context is mixed or American, the brain processes things one way, the way we have already learned, and there is

interference in the acquisition of the new language. If the context is drawn from Chinese culture, the brain will process things in another way. As long as the students are coached how to learn in that type of context, they will learn in a much more efficient manner without all of the distractions from the first language culture. I actually used this methodology first to teach English to Chinese students in China and was equally as successful because it is based on how the brain works."

Dr. Shepherd also provided some great references from which he has drawn much of his inspiration and development of his pedagogy. One thing Dr. Shepherd did say, however, is that he does have his first year students learn some characters, though emphasis is not in learning characters at this phase, but rather, to gain verbal proficiency. The characters he chooses to have his students learn are radicals, which are the building blocks that form the more complex compound characters.

This of course gave me much food for thought about my own teaching methods and how to teach my students. However, I am well aware that this is a class on teaching reading. And, as I mentioned before, learning to read and write Chinese is something that I have struggled with myself for many years. So I decided to refocus my research for this paper by looking at just how people have taught reading and writing Chinese, especially to children. I began my search by using multiple variations of the search terms "teaching reading Chinese children" using the Google search engine. In one search, there was a link to a scholarly journal article, on a system called JStor, and I found that I could access a whole host of articles on JStor through the Seminole State Library! I then did a search on "Chinese Reading" on JStor and found nearly two dozen articles that somehow related to teaching Chinese characters in some way.

As I began reading through these articles, I have discovered so much more information than I could have imagined; a large body of research already completed from different perspectives, from which I can draw much inspiration and information. I had an assortment of articles, all with interesting research perspectives. Some papers compared phonetic pronunciation systems, some papers discussed students learning meaning and sound of the characters, and still other articles discussed Chinese students that had learning disabilities and their experiences in learning to read and write Chinese. My problem was not finding information on my topic, but rather how to narrow the search so that I had a reasonable amount of material to use. I ended up limiting my articles used in this paper to primarily to those articles specifically discussing Chinese phonetics and studies involving learning to read characters. While I would have really liked to read about learning disabilities in reading (such as dyslexia) and how they manifest when learning to read Chinese. However, that is simply beyond the scope of this research paper, so it will have to wait for another time. My original questions still remain the same, however: **What is the best method to teach Chinese as a second language to Preschool and Elementary aged students?** The corollary question to this is: **When is the best time to begin teaching character recognition to these students?** Finally, my personal question which relates to this research is: **What is the most effective way for me to systematically learn to read and write more Chinese characters?**

Phase III: What I Learned

Chinese, along with Japanese, Arabic, and Korean, is termed a Category IV language by government language schools such as the Defense Language Institute and Foreign Service Institute. This is categorized in terms of the length of time it takes to attain varying levels of proficiency. To research a “limited working proficiency” in a Category I language such as French or Spanish, for instance, experience has shown that approximately 480 contact hours are required; to attain similar proficiency in a Category IV language, on the other hand, requires approximately 1,320 contact hours. (Everson, 1994). One of the main reasons for this difference is because the Chinese written language system (orthography) is nonalphabetic. Chinese orthography is often described as logographic and morphosyllabic. Logographic can be defined this way: *“A written symbol representing an entire spoken word without expressing its pronunciation; for example, for 4 read “four” in English, “Quattro” in Italian.”* (<http://library.thinkquest.org>). Morphosyllabic can be defined as follows: *“Chinese characters each represent a single syllable, and in the vast majority of cases a single morpheme”* (McCarthy, 2005). In linguistics, a morpheme is the smallest semantically meaningful unit in a language (Wikipedia, 2012).

What this means is that script-meaning relationship in Chinese is close, while the script-sound relationship is arbitrary (Ho, 1997). When we learn to read an alphabetic language, we develop phonological awareness—the sounds that are made by the individual letters, and then we learn how to put the letters together to form words, and then finally, to substitute letters to form blends and new words (the Alphabetic Principle). However, in Chinese, the relationship between character (logogram) and sound is not obvious, especially to someone learning Chinese as a second language.

These complexities make the matter of how to most effectively teach Chinese as a second language a multifaceted issue. After conducting the research for this paper, **I have concluded that students need to focus on mastering the spoken aspect of Chinese before they can effectively learn to read and write in that language.** However, it is important to introduce the meaning of the characters to the students, especially basic characters and radicals (characters that make up the building blocks for more complex compound characters). **Because learning to read in a language is more effective when the student is already proficient in speaking in the language, I would introduce the character and its *English meaning* without having them match the word to its sound in Chinese.** As students begin to learn vocabulary, they will be able to put the character together with the spoken Chinese they are learning on their own, but I would allow them to make that connection themselves, rather than risking cognitive overload by forcing them to learn all of the aspects of the language at the same time.

Owing to the nonalphabetic nature of Chinese orthography and to the pedagogical desire to provide a more efficient basis for the development of aural/oral skills without the conflicting difficulty of mastering a complex writing system, the general practice in the West has been to use the Latin alphabet to represent Chinese sounds, hence the term “Romanization system.” (McGinnis, 1997). There are two major systems used for teaching pronunciation of Chinese words. The main system of Romanization that is taught was developed in the People’s Republic of China in 1958, and is called Hanyu Pinyin (or Pinyin). Pinyin is essentially a phonemic representation system, using 26 Roman letters. It is used to help children create the sound for the Chinese characters. In Pinyin, each phoneme is represented by a

letter. (Siok and Fletcher, 2001). The beginnings of the word sounds are represented by consonants (called initials) and the endings of the word sounds are represented by vowels and vowel combinations, known as finals.

There is another pronunciation system, known as Zhuyin fuhao (or shortened to Zhuyin) that is taught to children in Taiwan. The function of Zhuyin is to help children to form the association of speech sounds and visual symbols via a visual modality (Siok and Fletcher, 2001). There are 37 simple characters that make up the Zhuyin system, each one representing a subsyllabic segment, which, in combination, form the sounds of all the Chinese words. One thing that I was not able to find in my research, however, were any studies that compared using Pinyin to using Zhuyin in teaching Chinese to children. In my classes, I use Pinyin to help my students in pronunciation. However, because the alphabet used in Pinyin uses the same letters as our English alphabet, emergent readers can sometimes get confused as to the correct phonics represented by the letter, as some Pinyin phonics are different than English phonics. For example, the letter q, we are taught to pronounce as “qua” in English. In Pinyin, however, q is assigned the “ch” sound. Similarly, the letter x is given the “sh” sound in Chinese. My experience is that some emergent readers get quite confused at the differences in pronunciation, and even proficient readers (in 3rd – 5th grades) have the English phonics so ingrained that they have great difficulty altering their pronunciation to the “Chinese way.”

Another Chinese teacher that I have worked with has taught Zhuyin in her class. Her experience is that it takes a little bit more work at the beginning teaching a new symbolic system, but because these simple characters are not used elsewhere and are not otherwise represented in any system that the students have already learned, they learn the phonetics anew and do not need to “unlearn” anything and do not experience the confusion using Zhuyin that students sometimes experience with Pinyin after initially learning the phonetic character (Marler, 2009). I need to clarify, however, that the characters used in Zhuyin are generally not standalone Chinese characters. Zhuyin symbols are phonetic symbols. Learning the written characters involves additional processes for which there has been much study.

When we look at the formal Chinese writing system, many linguists view Chinese as simply logographic. However, this is really a simplistic and misleading view. By classifying Chinese as logographic leads one to believe that the Chinese writing system does not have any bearing the Chinese oral language. It implies that Chinese learners must memorize, by rote, thousands of logographic symbols when learning the written language. (Li, 2002). In fact, only a small percentage (about 10%) of Chinese characters convey meaning by pictographic or ideographic representation. About 90% of Chinese Characters are ideophonetic compounds, each comprising a semantic component (the radical, conveying meaning), and a phonological component (the phonetic, giving a clue to the sound of the character). The term ideophonetic compound has been used to indicate Chinese compound characters that contain components that convey both meaning and sound to the characters. (Ho and Bryant, 1997).

When considering the best time to introduce Chinese characters into the curriculum, Chinese language professionals are not always in agreement. However, consensus seems to be developing that preceding reading with a firm grounding in the spoken language makes pedagogical sense. (Everson, 1994). It is important to remember that, unlike native speakers, our (English-speaking) students do not have

command of the spoken language (Chinese) when they begin to read. Consequently, they need to receive a firm grounding in the spoken language phonetically (via Romanization-- for example, Pinyin) before they attempt to read in characters. When reading in Romanization, students can more immediately focus on comprehending the message of the text because they do not have to expend so much processing energy on character recognition. (Everson, 1994).

In addition, there was a study that showed that American children with reading problems were able to overcome some of the reading problems they experienced with the alphabetic system by learning to read English (words) represented by Chinese characters. (Rozin, Poritzky, Sotsky, 1971). In the Rozin study, there was no spoken Chinese taught. These were readers that had reading difficulties in English, especially with phonemic awareness, or even recognize alphabetic letters as components of their own or others' speech. A defined set of Chinese characters were introduced and their meanings were given in English. After students were taught a set of characters, they were able to successfully decode meanings of entire sentences. This study demonstrated that students with no prior background in Chinese were able to successfully attribute correct meaning to the Chinese characters and use them in a meaningful way—and this also gave them a way to read for meaning successfully.

These studies demonstrate that characters are best taught when there is already a spoken language grounding. Everson (1994) advocates a grounding in spoken Chinese before teaching characters, while in the Rozin, Poritzky and Sotsky study, the Chinese characters were introduced with their English meanings, so the reading that was taught was in English, not Chinese.

When students begin to learn to read Chinese, one study (Tan et al, 2005) demonstrated that the ability to read Chinese is strongly related to a child's writing skills. Incorporating character writing in reading development is mediated by two possibly interacting mechanisms: orthographic awareness, which facilitates the development of coherent, effective links among visual symbols, phonology, and semantics; and the second involves the establishment of motor programs that lead to the formation of long-term motor memories of Chinese characters (Tan et al, 2005). Thus in order to teach children to recognize characters, they need to practice writing the characters in order to be able to remember. This is similar to practicing the letters of the alphabet in order to learn the letters as well as form the letters correctly.

A fundamental feature of languages is that groups of words share morphological features. For example, in alphabetic languages like English, words such as *worker*, *worked*, and *workshop* all share the same stem *work*, and their meanings are related. In nonalphabetic languages like Chinese, the words 媽媽 (Mom), 奶奶 (Grandma – Dad's Mom), 姥姥 (Grandma – Mom's Mom), 姐姐 (older sister), and 妹妹 (younger sister) all share the character 女 (woman) and are also semantically related. (Shu and Anderson, 1997). The character 女 (woman) is a part of the word known as a radical, which often provides a clue to the meaning of a word. About 80 – 90% of characters in modern Chinese are composed of two components: the radical and a component that offers a clue to pronunciation. (Shu and Anderson, 1997). Thus by teaching these components to students, they are more likely to be able to reason out the meaning of a word or an approximate pronunciation, even without having encountered the word previously. Even though there are irregular characters whose meanings are unrelated to their radicals, recognizing radicals in a word provides a valuable skill for students to build on when further developing their proficiency in Chinese, and learning to use a Chinese dictionary.

Phase IV: Reflection: What This Means to Me

I discovered in doing this research that there has been a very extensive body of work done in the past several decades studying how children learn the Chinese Language. While I have studied only a very few articles on this topic, I have learned that I can draw from what has been studied thus far to refine and tweak my pedagogy and curriculum and lesson planning for teaching Chinese.

In discussing my findings with others, I have formulated some strategies that I will apply in my classes right away, including introducing characters, but focusing on the English meaning of the character rather than the Chinese pronunciation. The majority of the characters I plan to teach will be radicals, so that students will be able to build their knowledge of building blocks. In order to learn the characters, they will need to practice writing the characters in order to be able to learn to read the characters. I will give them a strategy to link the character to its meaning in English, and then add in the pronunciation. The three aspects of a Chinese word can be represented in the form of three circles (at three corners of a triangle). This is similar to “number bonds” used in Singapore Math, but I will call them “word bonds.” Graphically representing the characters this way should help students visually the linkages between Chinese characters, their meanings, and pronunciations.

Finally, this study has helped me develop a strategy to achieve my personal learning goal to read and write Chinese characters to a working proficiency. While there is no “magic bullet” to learning Chinese, I can use the same strategies used for my students to learn more complex radicals and compound words, and build word families of words. From the time I began to teach Chinese, I had instinctively thought that teaching radicals as the foundation of characters was an important part of teaching Chinese. Completing this study has confirmed that thought. It is reassuring to know that teaching strategies that I formulated on my own are also research-based.

Phase V: Growth as a Researcher

One of the things I learned is to not make assumptions and to keep an open mind. Sometimes what you find may surprise you. Prior knowledge or past experience can blind a person from seeing something that differs from their accepted purview. For example, something I never knew about teaching children to read Chinese is that there is no separate phonetic system used to teach Chinese in Hong Kong (Ho and Bryant, 1997). In China, the Pinyin system of Romanization is used. In Taiwan, a symbolic system of pronunciation of the phonemes called Zhuyin is used. However, neither system is used in Hong Kong. While (Ho and Bryant’s) article does not give a reason, I hypothesize that because people in Hong Kong mostly speak Cantonese, neither Pinyin nor Zhuyin (which both were designed for Mandarin pronunciation) would be appropriate for use in teaching pronunciation. However, the character system of writing is the same regardless of the Chinese dialect. This is one very interesting fact that I would not have learned had I not embarked on this study. In my purview, I suppose because Hong Kong has officially been returned to China since 1999, I assumed that Pinyin would be taught in Hong Kong schools as well. As a wise man once said...“Never assume.” The corollary to that statement would be “keep an open mind, for you may not know where your research will lead.”

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