CHINESE WRITING SYSTEM: FORMS AND METHODS OF MEMORIZING

Alfiya R. Alikberova[1], Elmira K. Khabibullina[1] and Svetlana Y. Glushkova[1]

The relevance of the problem in question is caused by the necessity of developing the most effective method of studying of one of the most important and most complex aspects of Chinese: the writing system. This study is directed at examining the most efficient forms and methods of memorizing Chinese characters. In the process of our work we also analyzed and presented the main techniques of learning and methods of teaching Chinese characters created by Chinese and Russian scholars. The leading approach to this problem is the problem-thematic approach. The key findings of the study are in the systematization of the main mechanisms and principles of learning and memorizing Chinese characters. The materials of this article may be helpful for school and university teachers of Chinese at the earliest stages of the students' learning, as well as for educators and developers of educational materials.

Keywords: Education, Chinese writing system, interactive forms, modern technology, Chinese language, methods of teaching.

INTRODUCTION

Presently the scope of teaching Chinese is rapidly increasing (Shi, 2001; Xing, 2006) in educational institutions: new training programs are being opened, new curricula and new subjects are being developed. In spite of the overall positive outlook, certain questions still arise, and these questions are something both teachers and students come across with. This primarily concerns the reduction of the overall volume of the class hours of Chinese and the disappearance of narrowly specific subjects from the curricula. In the process of researching the quality of teaching the Chinese writing system for freshmen students of the bachelor degree program "Asian and African Studies" at the Institute of International Relations, History and Oriental Studies of Kazan (Volga Region) Federal University we have identified a number of methodological problems (Alikberova, 2016; Demina, 2006; Kochergin, 2000) that occur when teaching Chinese characters.

The proposed work is devoted to the problem of tea-ching and memorizing the Chinese writing system. The study is aimed at finding the most effective forms and methods of teaching Chinese logograms (Moloney & Hui, 2015) that can help at the beginner's level of learning Chinese.

METHODOLOGICAL FRAMEWORK

The methodology of research methods allows to see the main development trends for education science and evaluate the various practices of theorists, educational

---

[1] Institute of International Relations, History and Oriental Studies, Kazan (Volga Region) Federal University, Kazan, Russia. *E-mail: alfiakasimova@gmail.com*

content developers and practicing teachers, as well as to learn about the structure and level of methodology of the predecessors and contemporary researchers.

The theoretical and methodological basis for our study is the conceptual tenets of various research works on the problems of teaching Chinese characters in educational institutions. The use of methodology and methods of existing academic works facilitates the adoption of the pedagogical scientific thought in the practice of teaching various aspects of Chinese, as well as of research methods and techniques in this sphere.

The systemic-structural approach gave us an opportunity to fully examine the methodology of teaching the Chinese writing system in middle and high school as well as at the university level, and to choose the optimal ways of using computer technology and modern teaching methods at classes of Chinese. The systemic-structural approach also helped to unite into a single teaching method the information from various aspects of learning: writing system, listening, grammar, reading, etc.

The use of general scientific logics allowed us to construct our method in its succession and sequence with internal logical connections between certain elements.

RESULTS

Learning Chinese writing, in terms of methods, is not very differe-nt from learning the writing system of any other language: the learner must possess certain motor writing abilities, speaking skills and vocabulary as well as a certain level of visual perception skills (reading). For languages with alphabetic writing system, a learner first studies a set of graphic elements, or letters, and only the-n learns how to combine them to make words. But in Chinese there are also other graphic elements: lines and graphemes that can be combined into logograms which usually denote whole words. The main problem of learning Chinese writing is that the pronunciation of a logogram is not in any way related to its graphic image.

So, when learning Chinese, learners encounter more difficulties than when studying alphabetic languages. One of the difficulties that ari-se before a learner of Chinese characters is the need to study a much larger amount of basic graphic elements than for alphabetic systems. Another difficulty is related to the practical-ly unlimited variability of these basic elements. There is- a total of about 316 basic graphic elements in Chinese language, while the lar-gest available dictionary of Chinese characters Zhonghua Zihai ('The Sea of Chinese Characters', 中華字海, 1994) contains 87,019 characters consisting of two or more graphemes.

In China there have been many st-udies on methods of teaching Chinese characters and, consequently, a large number of approaches have been deve-loped. However, it should be noted that most of these works are devoted to teaching Chinese writing to native speaking children who speak and understand Chinese. Due to this, some of these approaches are inapplicable to students who learn Chi-nese as a foreign language.

To-day one of the most popular methods is learning logo-graphic writing by studying graphemes. Any Chinese character is basically a graphic construction that consists of minimal graphic elements – lines. These lines, in their turn, form graphemes. A grapheme, or a radical, is a basic character element of the Chinese writing system that serves to build characters and that has a certain semantic value (Zadoenko & Huang, 2010). Radicals are the basis for the clas-sification of characters and the motivators behind every character's meaning. As discus-sed above, Chinese characters have complex structures. In theory, comp-lex characters are usually broken down into two categories: logograms and logophonetic characters (Kondrashevskiy, 2010).

Logograms are characters consisting of two and more graphemes. Meanings of such characters are derived from the semantics of the gra-phemes they consist of, while their pronunciation is not related to the graphemes they consist of in any way. For example: 话 *hua* ('words, expressions, speech') consists of the graphemes 讠 *yan* ('speech') + 舌 *she* ('language'); 明 *ming* ('bright, light, lucid') consists of the graphemes 日 *ri* ('sun') + 月 *yue* ('moon').

The logophonetic characters are also usually divided into two categories. However, these parts are different in their functional role. One of them, usually called the semantic part, shows the character's relation to a group of characters related in their meaning and denoting classes of objects, phenomena or properties. For instance, such is the grapheme 木 *mù* ('tree'): the characters that contain it denote various species of trees or types of wood and woodware – 桦 *hua* ('birch'), 椴 *duan* ('lime tree'), 椅子 *yizi* ('chair'); the grapheme 'water' 水（氵）*shui*, accordingly, denotes all words as-sociated with the notion of liquid, as well as names of various water bodies and reservoirs – 河 *he* ('river'), 湖 *hú* ('lake'), 渴 *he* ('to be thirsty'). The second part of such logophonetic characters is called their phonetic part. It plays the role of the phonetic com-ponent of the character that shows the character's pronunciation that at times can completely coincide with the phonetic part's pronunciation. For example, the character 冰 *bing* ('ice') consists of the graphemes 冫 *bing* + 水 *shui*. This example shows a case when the pronunciation of the whole character is the same as the pronunciation of its phonetic part. However, due to the fact that most logophonetic characters originated as early as in Ancient China, the language itself, its categories and its phonetics underwent significant transformations. Th-at is why the pronunciation of a character does not always coincide with the pronunciation of its phonetic part.

Consequently, the knowledge of Chinese graphemes, being able to break them down into categories, as well as the ability to distinguish between logographic an logophonetic characters can be-come a real asset in learning the Chinese writing system. Let's take, for instance, the phonetic element 巴 *ba* and the characters that

contain it: 疤 *ba* ('scar'), 把 *ba* ('handle, knob'), 爸 *ba* ('father'), 吧 *ba* (onomatopoetic word that imitates the clapping sound – 'smack, thwack') and 肥 *fei* ('fat, chubby'). Thus, knowing the semantic meaning of the graphemes that are parts of these characters – 疒 ('disease'), 扌 ('hand'), 父 ('father'), 口 ('mouth'), 月 ('meat'), – the learners can easily guess the mea-ning of the whole character.

For instance, adding the grapheme 疒 ('disease') to the phonetic element 巴 *ba* results in the character 疤 *ba* ('scar') whose pronunciation is completely identical to the pronunciation of the phonetic part, while its meaning di-rects us to the group of words related to diseases. While not all characters are pronounced identically to their phonetic parts (for instance, characters 把 *ba* and 爸 *bà*), students can nevertheless learn their pronunciation by using them in their speaking practice. Some characters lose their tones when used in speaking: for instance, the word "daddy" is pronounced like 爸　*baba*, not 爸　*baba*. As for the character 肥 *fei*, whose pronunciation is radically different from all other characters, this is the case of an exception from the general rule. In spite of this, memorizing such ch-aracters, according to some Chinese researchers, should not constitute a problem for students [Si, 1995]. Based on all of the above we can conclude that studying graphemes divided into groups and based on their phonetic pronunciation or their meaning is a very effective method of learning.

There is one more way of learning the Chinese writing system, and that is studying characters by breaking them down to their components. Let's examine this approach on the example of the character 韶 *shao* ('ancient melody'). This character consists of the fol-lowing components: 音 *yin* ('music') and 召 *zhao* ('invite') that, in their turn, resolve into 立 *li* ('to stand'), 日 *ri* ('sun'), 刀 *dao* ('knife') and 口 *kou* ('mouth'), as sh-own in fig. 1.

According to this approach, teachers of Chinese should explain the struc-ture of this character, from simplest components (such as 立 and 日) to simple compound
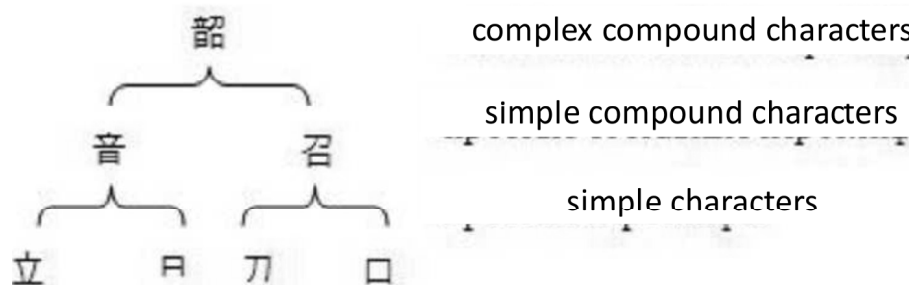

Figure 1: Analysis of the character 韶 *shao* ('ancient melody')

characters (音) to complex compound characters (韶). Thus students can not only learn new characters via the already known ones but are able to also revise the previously learned material. Nevertheless, this method is not very effective due to the fact that characters are inevitably divided into constituent parts which are in fact devoid of meaning. Case in point: the above reviewed character 韶 *shao* ('ancient melody') is broken down to the graphemes 立 *li* ('to stand'), 曰 *ri* ('sun'), 刀 *dao* ('knife') and 口 *kou* ('mouth') that have nothing to do with the meaning of the character 韶 *shao*. So, students can memorize the contents of this character on-ly as a set of unrelated components. A specific method was devised for situations like this, and it can be called the "character story" method. In a nutshell, it means that to make memorizing of complex compound characters easier, teachers come up with a story that ties the components together. Examples:

1. 教: old child, beat = teach. The story for easy memorizing: in the old days in China children were taught by aged, experienced teachers who would beat some students with a stick for disobedience. That is, this character contains a story about education methods in Ancient China.

2. 洋: water and sheep = ocean. When an ocean is heaving, it resembles a million of sheep (the image of "sheep on the water").

3. 黄: grass, field, eight = yellow. 'Eight' in this character could mean the eighth month of the lunar calendar, when the grass in the fields becomes yellow.

4. 蓝: grass, knife, bamboo, dishware = blue. To get the blue color people would cut the bamboo and the grass, put it in dishes, soak it and steam it until the needed color was obtained.

5. 福: ancestors' shrine, one, mouth, field = happiness. The grapheme 'one' symbolizes the Sky, while the grapheme "mouth" means people. The Sky, the people and the Earth are interrelated: people honor their relatives, while the latter send them luck and happiness.

One more efficient way of learning Chinese characters is studying their etymology. For instance, Jia Guojun suggests teaching students si-mple characters by using pictures that illustrate the evolution of a charac-ter from its ancient form to its modern one (Kondrashevskiy, 2010). An example of that is shown in fig. 2.

This approach is especially effective because it helps students to memo-rize the exact way of writing a character. If we take a look at three vertical lines with ho-oks in the bottom of the character 鼠 *shu*, we can note that only two of them have two horizontal dots next to each of them. However, when writing this character a lot of students make a typical mistake of writing two horizontal dots next to the third hooked line as well. Th-is mistake is shown in fig. 3.
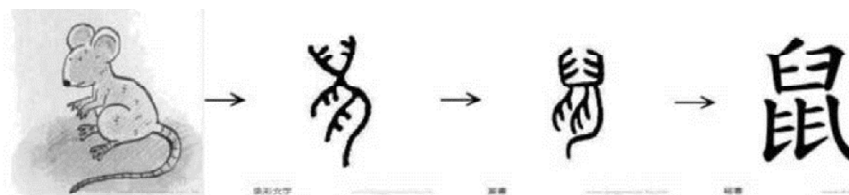
Figure 2: Graphic etymology of the character 鼠 shu ('mouse')

The correct form   A writing mistake

Figure 3: A mistake in writing the character 鼠 shu ('mouse')

Based on the above pictures, teachers can explain to their students that the character 鼠 shu ('mouse') graphically represents a sitting mouse, with its first two vertical hooked lines being its paws, while the horizontal dots are its claws. And thus it beco-mes obvious that the third vertical hooked line without the two "claws" is the mouse's tail. Having seen and analyzed this picture, the students will probably avoid this mistake in the future (Shi, 2001).

Instead of reading a lecture on the historical background of a character, Chinese linguist Li Weimin proposes a more democratic way of memorizing the character's structure. His approach involves moti-vating students to come up with their own associations about a character's structure, using their imagination and creativity (Moloney & Hui, 2015). For example, describing the structure of the character 愉 ('to enjoy, to have fun') can look like this: one (一) person (人) with a knife (刀) is preparing to travel to the (月) moon and he feels (心) happy. If we break down the character 愉 *yu* into component graphemes, we will get the following: 一 ('one'), 人 'person'), 刀 ('knife'), 月 'moon') and 心 'heart'). It is natural that such a description of a chara-cter's structure has nothing in common with its actual meaning or its etymolo-gy. This approach enables students to not only master Chinese writing but also to deve-lop their associative thinking skills. But several Chinese linguists with conservative views on the methods of lear-ning do not recommend using this method.

The next method of memorizing characters is also based on image associations. It is the mnemonic technique based on associative memorizing and the characters'

etymology. Mnemonics is the art of memorizing, a set of methods and techniques that make memorizing easier and that increase human memory by building artificial associations. Eidetic memory, or image memory, is a person's ability to memorize information by creating images related to that information. This type of memory can be developed, because it is always acquired and never congenital. Due to Chinese language's unique features this type of memory will always be involved at least in some way, while using mnemonic techniques facilitates better memorizing of Chinese characters (see fig. 4).

Figure 4:   A mnemonic picture for memorizing characters

Another very effective method is giving the learners an opportunity to create their own associations and images to memorize characters and let them draw these images. These can get very unique and unexpected sometimes. For instance, when learning the character "older sister" one of the students imagined an older sister wearing a tall head-dress, because the grapheme resembles a top hat.

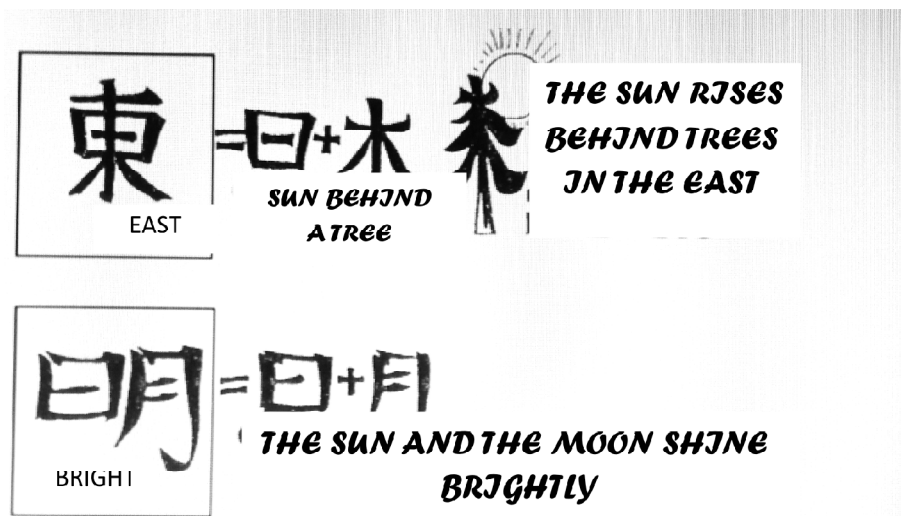The following examples can also be used as an illustration (see fig. 5):

東 =日+木   THE SUN RISES
EAST   SUN BEHIND   BEHIND TREES
          A TREE   IN THE EAST

明 =日+月
BRIGHT   THE SUN AND THE MOON SHINE
                    BRIGHTLY

Figure 5:   Associative images created by learners

DISCUSSIONS

The logographic sys-tem of writing of Chinese language is very idiosyncratic and it is one of the most complex aspects of studying Chinese. Scholars have been research-ing the problem of improving the methods of teaching Chinese characters for many years, but there is still no clear and distinct solution to it. Chinese researchers con-tinue their search for the most effective methods of teaching the Chinese writing system. For instance, Zhang Tianruo and several other linguists think that at the beginner's level students should learn a large num-ber of characters before starting to acquire reading and writing skills (Zhang, 1991). Si Xia, however, has a different opinion about that: she thinks that students should learn to read and write texts from the very beginning, even if they cannot understand the meanings of these texts at this point. According to her, students can memorize the meanings and the way of writing of the characters directly from the texts (Si, 1995).

However, according to Russian linguist I.V. Kochergin, there are also subjec-tive difficulties in memorizing Chinese characters (Kochergin, 2000). These are usually related to the fact that mastering such a unique writing system requires the involvement of the biggest number of possible mental mechanis-ms, as well as the intense use of all types of memory. Because of the fact that there are no indi-viduals with equally developed and trained mental functions of the brain and types of memory, group learning of the logographic writing system on the basis of some universal techniques will most often not yield the desired results. The questions of the methodology and the development of a most efficient and optimal model or memorizing Chinese characters were researched by many Russian and foreign

scholars (Moloney & Hui, 2015; Palis, 2015; Xing, 2006; Zadoenko & Huang, 2010).

CONCLUSION

The general idea that combines all the approaches described above is that tea-ching Chinese characters is a very important part of learning Chinese. Only after learning a large number of characters students can proceed with studying reading and writing skills. However, some experts express the opinion that it is not necessary to delay learning writing and reading in order to spend more time on learning characters.

Besides the approaches analyzed in this paper, there are, of course, additional means and methods of teaching the Chinese writing system, based on co-mpletely different principles. It is worthy of note that due to the advancement of technology we see more and more computer programs, applications, electronic and multimedia devices that allow for easy interactive learning. Using such products can be very helpful for both teachers and learners.

Acknowledgments

References

Alikberova, A. (2016). Humanitarian communication in the system of Russian-Chinese relations: results of research work. *The Turkish Online Journal of Design, Art and Communication, November Special Edition*: 2358-2363.

Demina, N.A. (2006). 'Metodika prepodavaniya prakticheskogo kitayskogo yazyka' (Methods of Teaching Practical Chinese). Moscow, Vostochnaya literatura.

Kochergin, I.V. (2000). 'Ocherki metodiki obucheniya kitayskomu yazyku (Outlines of Methods of Teaching Chinese)'. Moscow, Vostochnaya literatura.

Kondrashevsky, A.F. (2010). 'Praktichesky kurs kitayskogo yazyka (Practical Course of Chinese)'. Moscow, Vostochnaya literatura.

Moloney R. & Hui, Ling Xu (2015). 'Exploring Innovative Pedagogy in the Teaching and Learning of Chinese as a Foreign Language'. Springer.

Palis, S. (2015).' Fun Fu Veggies: A Chinese Character Recognition Method for Early Learners'. Create Space Independent Publishing Platform.

Shi, M. (2001). 'Rules of Reasonable Learning: Curriculum, Learning Materials, Methods of Teaching'. Beijing, People's Education: 9-34.

Si, X. (1995). 'A Talk on Effective Learning'. Nanjing, Nanjing Normal University.

Xing, Zhiqun (2006). 'Teaching and Learning Chinese as a Foreign Language: A Pedagogical Grammar'. Hong Kong University Press.

Zadoenko, T.P. & Huang, Shuying (2010). 'Nachalny kurs kitayskogo yazyka (Beginner's Course of Chinese)'. P. 1. - Moscow, Vostochnaya literatura.

Zhang, T. (1991). 'Emphasis on Literacy. Step-by-step Exercises'. Beijing, People's Education.