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**Author:** Katarzyna Bańska

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Katarzyna Bańka

## Psycholinguistic aspects of Chinese character acquisition by beginner students

**Abstract:** The Chinese are probably one of the few nations which still avail an alphabet resembling their ancient writing style, which has been used for over 5000 years in the Far East. To date, it has undergone numerous changes; however, it still retains a resemblance to the pictograms and photographic icons of their ancient characters. The stroke order and the stroke shapes are continually crucial to Chinese native speakers and their writing system (Zhou, 1998; Sun, 2006). The aim of this chapter is to present an introduction to the system of Chinese characters' acquisition from the psycholinguistic perspective. At first, the specificity of Chinese characters is presented in a general introduction to the writing system, in contrast with Indo-European languages, in order to fully comprehend the content introduced in the following part of the chapter. The process of character acquisition is investigated throughout observation of students' progress in three age groups. The analysis is followed by examples introducing some ambiguities, similarities, and other difficulties which the students struggle with in the process of the acquisition.

**Keywords:** Chinese language, Chinese characters, psycholinguistics, language acquisition

### 1. Introduction

Learning one foreign language is not enough in the world of 'today', especially if you are not an English native speaker. Multilingualism has already become a worldwide norm, and continues its expansion across the world, which has its consequences in the change of economic growth, and many other aspects of life (Chłopek, 2011).

At the beginning of this article, I will discuss the specificity of the Chinese language, focusing on Chinese character acquisition in terms of its difficulty in the learning process, also taking into consideration selected psycholinguistic aspects of this process. The Chinese language is compared here to certain aspects

to Indo-European languages. What is more, the chapter presents a mini-scale pilot study focusing on the stages in the Chinese character learning process and also on the attitudes towards learning Chinese in general. At the end, a summary and comment on this process are offered in the concluding section of the text.

## **2. Theoretical introduction to Chinese character acquisition**

In the following paragraph, the outline of the basis of the complexity of Chinese language system in terms of its characters is introduced. At first, the alphabet is presented in opposition to the Indo-European languages' alphabets based on the Latin script. Moreover, some other aspects of Chinese phonetic system are discussed, for example the amount of Chinese syllables/words with their tonal representation, and the corresponding characters, and the complexity of their multiple meanings and shapes.

In the further part of this section, I present difficulties in differentiating Chinese characters which have further implications for the learning process. In the following sections, the psycholinguistic aspects of learning Chinese are examined. At first, I briefly introduce the reasons for choosing Chinese to study as a foreign language and the motivations which lead to such a decision. I also elaborate on how the characters are seen by the students and what their methods of learning them are with respect to their age. The last part of the article is devoted to investigating the stages of learning Chinese characters. The tables and results are then further analyzed and brought to a conclusion.

### **2.1 Basic information about Chinese characters**

The Chinese language, in comparison with Indo-European languages, consists of not only the alphabet called 'pinyin' but also out of characters, which are often compared to pictures of squares, rectangles, and other shapes (Sun, 2006, pp. 1–3). As opposed to other languages, there are only a few words which consist of only one letter, such as onomatopoeic sounds or interjections like for instance the sound of surprise '叫阿!' or '叫我!' (I–1). Chinese is a syllabic language, and each syllable has its own visual representation in the form of a character, commonly known as: 'hanzi'. However, there is a limited amount of such syllables (for further reference see the table placed as the first position of the appendix called: Initial-Final Combination in Standard Chinese Common Speech).

It is said that Chinese has not more than 400 syllables, 419 to be exact if we count all the available syllables in the previously-mentioned table placed in the appendix. Unfortunately, since Chinese is a tonal language, each of these syllables may (with some exceptions) occur in four (or even five) different tones, and each phonetic representation may have an individual character representation (or more than one), creating a vast number of words in the written form, although Chinese has only 26 letters in the alphabet (Kostrzębska, 2007, p. 6). Table 1 presents Chinese phonetic and written representations of a syllable and its meaning.

**Table 1.** Chinese phonetic and written representation of one syllable and its meaning

Syllable	Tone	Character representation	Translation
SHI	Shī	诗	A poem
	Shí	十	10
	Shǐ	史	History
	Shì	是	To be

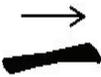
As can be seen, a single syllable ‘shi’ may have four different tonal representations, which correspond to four different characters with four diverse meanings (for further reference in terms of the phonetics of Chinese see: Chao, 1930; Yip, 1980; Shen, 1989; Qian, 1996; Sun, 2006). However, because there are numerous polyphonic, polygraphic, and polysemic words, the previously-mentioned syllable ‘shi’ may actually have 75 various character representations (you can see all of them when writing in Chinese in a simple word file choosing the ‘shi’ character). Fortunately, not all of the syllables are that polysemic and polygraphic (for further reference, I strongly recommend Norman, J. L. 1988; Branner, D. 2006; San, Duan-mu 2007; and also Sun, Ch. 2006).

## 2.2 Difficulties in learning Chinese

When learning Chinese, as opposed to any Indo-European language, one has to learn five different elements at the same time: the phonetic equivalents—‘pinyin’ (syllabic or multisyllabic words), their tonal representation (–,/,ˇ,\), the meaning, and finally the characters, and their stroke order. This is the first difficulty in learning Chinese, which means that the students have to get accustomed to a different learning system. On the other hand, Chinese grammar is rather simplistic; there is no conjugation, declension, inflection, vague plural and gender, and thus there is little universal grammar similarity (in terms of lan-

guage universals see: Evans & Levinson, 2009). However, in terms of learning the writing system, students face yet another problem, the specificity of the strokes and their order in even a single character. In the table below, two out of twelve examples of strokes and the specificity of their writing system exemplify the above (Table 2).

**Table 2.** Chinese writing system—a sample of strokes and their writing explanations (based on: Sun (2006), pp. 107–109; Yang (2006)

Stroke's name	Visual representation	Example	Explanation of the writing system
横 héng		一	The horizontal stroke is written from left to right.
提 tí		把	The upward stroke to the right is written from bottom-left to top-right.

As can be seen, even the smallest detail is important in the Chinese writing system. Native speakers of Chinese pay close attention to such details, because sometimes misplacement of the stroke, or wrong positioning of strokes, or shape may change the meaning of the word. Below, there are some examples of such words.

**Table 3.** Stroke shape and count influencing the meaning of the character

Stroke shape influencing the meaning		Stroke count influencing the meaning	
土 'earth, ground'	士 'bachelor'	日 'day'	目 'eye'
天 'sky'	夫 'husband'	大 'big'	太 'too much'
见 'to see'	贝 'selfish'	工 'work'	王 'king'

Table 3 demonstrates how small details may change the word's meaning completely, thus it is crucial to be very strict about the strokes' shape, look, and manner of writing. Prolonging the lower stroke in the word 'earth, ground'—'土' may lead to writing the word 'bachelor'—'士', which would cause numerous misunderstandings in written communication. Similarly, prolonging the stroke in the word 'sky'—'天' to the top of the character will cause you to write the word 'husband'—'夫'. However, not even the shape or overall look of the stroke is the most important. The stroke count is crucial in writing characters as well. As it can be seen in the right column of Table 3, one additional horizontal stroke in the word 'sun'—'日', changes the word into the word 'eye'—'目'. On the other hand, one additional dot in the word 'big'—'大' will change the word into 'too much'—'太' (in order to see the characters' composition and writing strategy, see: I–1).

### **2.3 Implications for learning Chinese**

Many Chinese teachers claim that learning Chinese makes people more concentrated on details and thus, more focused on accuracy. People learning Chinese tend to be more patient and organized with their time, which helps children, teenagers, and university students enhance their comprehension, enlarge their abilities in reading and writing, and it also helps improving problem-solving management in all the age groups (Saville-Troike, 1984; Hakuta, 1986; Bamford, 1991). What is more, perhaps because the Chinese language seems to be very difficult at the beginning, many students mention that they start feeling a great deal of respect for learning languages such as this one. These are examples of some psychological changes which are instigated by learning languages such as Chinese (further analyzed in the following section).

## **3. Research focus and study description**

As mentioned earlier, the focus of this chapter is on the Chinese character learning process, its diversity as opposed to the Indo-European writing systems and learning of them. It also deals with various psycholinguistic issues which accompany this process. The following part of the text deals with certain psycholinguistic aspects of Chinese character acquisition and difficulties which occur in the process of language learning over a one-year time period. Due to the length limits, the article has to be treated as introducing the theme and possible research areas for further investigation. Thus, although it presents a short empirical study, the article is more theoretical in its scope. In its empirical part it delineates the stages of Chinese characters learning process by the beginner students of Polish origin. Additionally, in the last part of the text, the analysis of students' behavior and attitude towards learning Chinese characters based on a one year long observation are presented and briefly commented on. The questionnaire data as well as other data collected allowed me to observe that Chinese characters' learning process occurs in three stages, each having didactic implications on learning the language in each age group. This observation is further analyzed and illustrated with the quantitative results of the knowledge the students have collected over the research time period. To my knowledge, such an investigation has not been previously conducted in Poland, thus it is yet another new topic concerning the area of language acquisition.

### 3.1 Method

#### 3.1.1 Participants

The researched sample is a group of 45 beginner students of the Chinese language divided into three age groups. As can be seen in the table below (Table 4), the age groups are as follows: 10–15, 16–25, and 26 and over. The reason why the groups are divided in such a way is due to the diverse changes which people undergo within those periods of time, which have immense influence in terms of motivation, language acquisition, and the learning process route and rate. Various factors have to be included in order to analyze language acquisition so that an overall picture of the progression or regression of the learning process could be discovered. The tested students all go through important social, sociological, psychological, cultural, and many other changes in their individual lives, at these particular ages when they decided to take up Chinese, which, as mentioned, will have an impact on changes of motivation, perception, view of the world, and finally the language acquisition process (Table 4).

**Table 4.** Research sample introduction

Research Sample	Age	Background	Amount of students
Children	10–15	– No previous Chinese experience – Primary and grammar school students	10
Teenagers-students	16–25	– No previous Chinese experience – High school and university students	15
Adults	26 and over	– No previous Chinese experience – Professionals	20

In analyzing the profile of the sample, it is important to notice that none of the students, out of all those selected for the research age groups, had prior contact with learning the Chinese language. Thus, the first research stage of learning Chinese characters is an equally new experience for each and every one of them. As can be seen in Table 4 above, the children aged between 10 and 15 are primary school or grammar school students. They learn Chinese as their extracurricular activity in their free time. Some of the tested students in this age group have decided deliberately to take up Chinese by themselves, because of their already developed interests in culture or foreign language learning. Others had been encouraged by their parents, and this reason occurs in the case of the majority of students in this age group. This fact obviously has further implications for the independence of the decision-making process, and changes in motivation for learning Chinese.

The next group consists of high school and university students between the ages of 16 and 25. Half of the tested students in this language group also took up the Chinese language as an extracurricular activity, and these are the high school students. The reason for learning the language in question was similar to those of the previous age group, namely, parents' encouragement. However, the other half of the students in this particular age group took up Chinese for 'instrumental purposes' as their university major, in order to use it in the future for professional purposes, which puts their motivation and intentions closer to the third group, the adult learners and professionals at the same time (more data on motivation and instrumental motivation in particular, see: McDonough, 1981; Ely, 1986; Dörnyei, 1994).

As mentioned above, the last group of students involved in the study consists of mature people, already working, having families and other responsibilities. All of the sample students took up Chinese as an instrument helping them to improve their working qualifications. Thus, they are highly motivated to learn the language because of their working environment and the plans of developing cooperation with Chinese companies.

It is believed that dividing students in three different age groups will illustrate well the changes in the perception of Chinese characters across age span and it will also demonstrate various approaches and motivations towards learning the Chinese language. The students from each age group encounter various difficulties hindering the learning process. What is more, these groups are not created for the purposes of this mini-scale study but they are naturally formed at language schools and other educational centers offering instruction in the Chinese as a foreign language.

### 3.1.2 Instruments

The research tools used for the purposes of this study were weekly observations of the learning progress, changing motivation and students' attitude to learning. Each student without exception has a Chinese class once a week for three hours. However, not all of the students are being taught individually; the children and adults are taught in groups of 5 students. The other research tool employed here were weekly individual and group discussions/interviews about Chinese character acquisition and its changing course, personal change in motivation and language awareness. The students were also tested weekly in terms of their ability to write Chinese characters. The use of multiple research tools allowed me to collect a fairly big corpus of the data analyzed later on (See the appendices for the tools used).

Table 5. Classroom assessment

Classroom assessment	Children 10–15	Teenagers–Students 16–25	Adults 26 and more
Textbook	Hanyu Jiaocheng vol. 1 (briefly)	Hanyu Jiaocheng vol. 1 and 2	Hanyu Jiaocheng vol. 1 and 2
Chinese language environment	classroom only		
Teacher	the only language medium		
Classroom activities	<ul style="list-style-type: none"> <li>– collocations,</li> <li>– repetition,</li> <li>– memory games,</li> <li>– stories about characters' visual representation,</li> <li>– songs, poems,</li> </ul>	<ul style="list-style-type: none"> <li>– multiple character writing,</li> <li>– repetition,</li> <li>– memorizing by heart,</li> <li>– one-on-one dialogues,</li> <li>– simple grammatical structures,</li> </ul>	<ul style="list-style-type: none"> <li>– multiple character writing,</li> <li>– repetition,</li> <li>– memorizing by heart,</li> <li>– one on one dialogues,</li> <li>– more advanced grammatical structures,</li> </ul>
Classroom observation	<ul style="list-style-type: none"> <li>– discussion—5 minutes each class—questions about the most difficult characters,</li> <li>– individual learning assessment (see: I. general questionnaires—an example in the appendix),</li> <li>– practical written assessment (see: II. practical test-like questionnaires—an example in the appendix).</li> </ul>		
Short tests	1–5 characters in writing	10–15 characters in writing + sentences	15 and more characters in writing + sentences

As can be seen in the table above (Table 5), apart from the pace of learning, all the three groups in question had been using similar textbooks as language instruction source, however, with various results. Formal classroom instruction and the exposure to the language in the case of Chinese are of extreme importance as it is the teacher that constitutes the only language medium. Due to these beginner students' still very basic knowledge of Chinese, there is no language environment enabling them to expand their knowledge about and of the language by themselves. The internet sources provided on the web pages are usually too advanced for beginner students. As mentioned earlier, the study is based on the classroom observations and teacher's reflections derive not only from the observation of classroom activities (which are shown in Table 5 above), discussions, short tests, but also from the general questionnaire and practical tests (for selected examples see the appendix).

### 3.1.3 Procedures

The above-mentioned research instruments were conducted in accordance with the ideas introduced in the textbook by Yang, Jizhou called: 'Hanyu Jiaocheng',

volume 1 (2007) and volume 2 (2007a). These books have been selected for each of the above age groups as the main source of Chinese language teaching. The books were used with different intensity in different age groups.

## 4. Learning Chinese characters: Data presentation and analysis

### 4.1 The psycholinguistics of learning Chinese and Chinese characters

The reasons the students give for taking up Chinese as an additional language are numerous. At the beginning of the research, a discussion took place with each age group about their personal reasons for taking up Chinese and the results are as demonstrated in Table 6.

Table 6. Motivation for learning Chinese

Research sample	Age	Amount of students	Motivation
Children	10–15	7	Parents' encouragement
		3	New hobby (very cool hobby—2)
Teenagers–Students	16–25	11	Work related
		4	It's a hobby (something different—3)
Adults	26 and more	15	Work related
		3	New hobby (it's fun—3)
		2	Keeps me younger

As can be seen in the table above (Table 6), the reasons for learning Chinese are varied; however, some similarities can be noted between the groups. In the first age group, we can observe an interesting issue concerning the choice of the language. Seven out of 10 children were encouraged to take up Chinese by their parents, which shows the lack of independence of the children, which will have certain consequences for their learning process. The children are less independent, thus the learning process is slower and less effective. Only 3 children said that it was a new hobby they had decided to take up, however, 2 out of those 3 children claim that 'Chinese seems cool' and in this way they strive for more popularity taking up this kind of hobby. This exposes yet another factor for choosing Chinese—acceptance by the community (here, other schoolmates) and perhaps in this manner striving for a sense of individuality.

In the second age group, the majority of students, 11 to 15, declared that they had decided to take up Chinese because they wanted to have a better chance of finding good employment. Twenty-year-old students were seeking new possibilities for shaping their futures. However, there were also some students who declared that Chinese was just a hobby; 4 out of 15 students also emphasizing the fact that it is something different, more idiosyncratic, and interesting. These were the high school students who still tend to think that 'having a cool hobby' makes a person more distinguishable from the crowd (more on students' motivation in Ushioda, 2005).

The last group presented the greatest variety of opinions; however, the vast majority of people (15 out of 20) declared that learning Chinese would 'help them grow in terms of their working skills'. They see Chinese as a tool, which will enable them to develop their professional skills, and eventually get a pay rise. Only 3 out of 20 people think of Chinese as a new hobby, and they are learning it for fun. The answer of the last 2 students was, however, the most interesting. These students think that Chinese will keep their brains younger, which is generally believed to be true.

As can be seen, the aspiration and motivation to learn Chinese change with age. At first, it is a less independent decision which might be imposed on the young learners, whereas with time the students tend to see some future benefits in learning Chinese, whereas adults see Chinese as a key to better working conditions and financial benefits.

It goes without saying that learning Chinese is not easy. It is a continuous struggle with one's attitude towards learning this complex and difficult linguistic system. One of the reasons is the fact that the Chinese writing system differs so much from the familiar Indo-European language, and thus, it is much more difficult to develop the Chinese character writing process. The other difficulty is that there is no language environment outside the classroom and, as a result, hardly any exposure to this language. The teacher alone is the medium between Chinese characters and the students, and only he/she can introduce them during the class. Checking characters online by the beginners is an impossibly difficult task. Thus, at the first stages of learning Chinese, it is not possible for these students to become autonomous in their learning process of Chinese.

As to another focus of this study, it is interesting to see how various people perceive Chinese characters. The children see them as 'pictures, paintings'. It seems that with age the visual introduction tends to narrow down to 'a group of strokes arranged in a certain way'. The first group of students created a very good system for memorizing characters by means of associations and collocations. For them, Chinese characters were indeed pictograms, so seeing them as pictures really helped in the learning process (McNaughton & Li Ying, 1999, pp. 10–15). Below we can see a picture deriving from an internet webpage: [www.allaboutchinese.tumblr.com](http://www.allaboutchinese.tumblr.com), which introduces the historical path of development which Chinese characters have gone through in order to achieve their modern graphic form (Figure 1). On the left, we can see the characters which are being taught to students to be followed

by numerous pictures and their change over time (for further reference consult: McNaughton & Li Ying, 1999). This visual representation of the characters helps children to learn the characters faster and to memorize them better.



Figure 1. Graphic representation of Chinese characters (I-2)  
Source: <http://www.allaboutchinese.tumblr.com>

Because of the effectiveness of associations, I have decided to use them with each of the age groups in order to facilitate the learning process of Chinese characters. It turned out that the students were very satisfied with their learning results. They memorized the characters better, and, what is more, their learning attitudes changed into more positive ones. They also decided to make their own versions of the ‘stories’ of the characters’ shape and meaning. The results of some of these stories are very interesting, so I decided to listen to the interpretations of numerous characters in each age group. A few of them are presented here in more detail (Table 7).

Table 7. Chinese characters’ graphic interpretation

Character	Children 10–15	Teenagers–Students 16–25	Adults 26 and more
白 ‘White’	walkie-talkie	beer with a straw	a cable car in the mountains
百 ‘100’	TNT explosives	TNT explosives	opened copying machine
十 ‘10’	a plus sign	a plus sign	a cross
常 ‘Often’	a well-built Indian with a fur hat on his head	a human with a hat	–
困 ‘Sleepy’	a person lying in bed	a tree on a bed	–

As can be seen, the imagination of children is very fertile. They tend to have the best ideas when describing the characters. However, the difficulty remains: the graphic description has no similarity/connection to/with the meaning. So we need to go further with our imaginations, saying, for example, that ‘there is a WHITE walkie-talkie’ or that ‘the Indians OFTEN hunt’, or that ‘TNT explosives may destroy 100 bricks’. Their motivation rises and children are willing to learn more. Not only have the young learners in the study but also the students tended to find it easier to learn characters in such a manner. Even the adults find it interesting and more welcoming. In spite of this positivity brought about by associations, they still have problems imagining things by looking at the characters so it is the teacher’s job to lead them to a solution.

In the above table (Table 7), variation in the ways of thinking and the environmental influence on the association process are exemplified in the data. The children think of their favorite cartoons or school subjects, whereas the teenagers tend to focus on their party life and school. The adult learners on the other hand, focus on their working environment, as in the example with the word 100—‘百’ which looks like an opened copying machine to them.

#### 4.2 Stages of learning Chinese characters

It has been observed that the three student groups involved in the study moved through three fairly clearly-defined stages of characters learning. The stages were very similar in each of the age groups; however, the duration of each stage was sometimes slightly different. A summary of these observations is presented in Table 8.

Table 8. Stages of learning Chinese characters and a learned character count

Research sample	1st stage Fascination ap. 3 months	2nd stage Critical period— a struggle/learning crisis ap. 1 month	3rd stage Keeping up the fight—respect towards the language ap. 7 months
<b>Children</b>	50–70	25–35 50–60% of scheduled characters	200–250
<b>Teenagers/students</b>	300–350	70–100 50–60% of scheduled characters	500–550
<b>Adults</b>	300–350	70–100 50–60% of scheduled characters	500–550

At first, each student was fascinated with Chinese characters (1st stage). Their overall interest in Chinese was astonishingly positive and their character acquisition was very satisfactory. The children learned 50–70 characters, teenagers/

students and adults both learned approximately 300–350 characters, in both writing and speaking during this stage. In terms of writing, the students of all age groups absorbed characters of various level of difficulty equally well. After this stage they were able to write and pronounce not only numbers and cardinal numbers 0–1 million, depending on the age group, but also their combinations without much difficulty. Although the youngest have not learned such big numbers at school yet, they could easily pronounce and write numbers up to 900. What is more, the personal pronouns, possessive pronouns, Chinese ‘to be’, and simple sentence structures were also learned with ease by all of the students. As the amount of the learned material depends on the age and brain capacity each group had for learning, it is obvious that the older students (especially the university students) could absorb more characters in both writing and speaking. The first stage is very satisfactory for both, students and teachers.

Nonetheless, after approximately a three-month period, each of the groups went through a rough patch, which for the purposes of this article is called critical period (2nd stage). Writing characters became a struggle/learning crisis, because whenever there was one character to learn, the students understood that there was much more still to come. After passing through one door, four more doors opened up ahead of them—each with more questions. Thus, the pace of character acquisition regressed tremendously, and each group learned only approximately 50–60% of the characters introduced during the classes. At this stage, the teachers’ relationship with the students was crucial. It was necessary for the teacher to open up to the students and explain his/her struggle with Chinese in the past, to make the situation more empathetic and thus more human (Oxford, 1990; Crump, 1995). This period lasts from about three weeks to one month.

The following period (the 3rd stage) was the students’ conscious decision to continue the struggle and to learn Chinese. However, at this point, the students are more aware of the Chinese language system and all the constraints which they still had ahead of them. They developed a greater respect for the language, and therefore that was the time when they started creating their own learning system, which best suited their individual needs. They simply became aware of the need to develop “learn HOW to learn Chinese” strategies, especially with reference to the Chinese characters. This stage lasted until the end of this pilot study, for approximately six months. The pace of learning increased, although not to the level of the 1st stage. Nevertheless, the results were still satisfactory. At this time, the children had learned 200–250 new characters (the level of HSK 2—Chinese Proficiency Exam level–2, out of six, corresponding to A2), whereas the teenagers/students and adults learned about 500–550 (HSK3–B1). The stages of learning Chinese characters and a learned character count are presented in Table 7.

## 5. Summary and conclusions

The article presented the specificity of the Chinese language and its writing system in an outline required for the purposes of the small-scale study analysis. Moreover, the difficulties which students have to face in the learning process were discussed. The pilot study involving three groups of students was presented, discussed and the data were analyzed. The results of the study demonstrate the existence of three stage learning process of Chinese characters: the 1st stage: fascination, the 2nd stage: the critical period, and the 3rd stage: keeping up the fight.

In other words, it can be observed that the process of the Chinese character learning changes within a one-year time period and can be divided into three main stages (see: Table 7). The first one is a successful stage of overwhelming joy during the process of learning a new and interesting language such as Chinese. However, after approximately three months the students of each age group find themselves in the second stage—the stage of doubt and increased awareness of the difficulties in terms of learning Chinese which are waiting ahead. Finally, after one month, the last stage occurs, in which the students become focused on their learning, but this time it is a much more mature learning because of the experience they have obtained so far. Although the pace of learning is slower than at the beginning, the language awareness is higher, thus the understanding of Chinese is deeper.

Also the changes in motivation which accompanied each of the age group of students were presented. The presentation and discussion were supported with quantitative analysis of characters learned by each age group. As could be seen, the main motivation for each age group was different, the youngest students learned Chinese usually not of their own choice, but of their parents' will. Similarly, it turned out that the students of the second age group had been encouraged by their parents in order to choose Chinese as their extracurricular activity; however, here we could observe a certain number of students who had taken the decision to learn Chinese by themselves, especially those who were concerned about their future careers. Finally, in the third group of students almost 100% took up Chinese out of instrumental need, in order to use Chinese in their current working situation or for the future professional purposes. All in all, it can be noticed that the motivation did not change too much. Only in terms of the youngest group of students, it changed more visibly, when they found Chinese interesting and learning it became their hobby.

In addition, the comments were made in relation to the students' language awareness and their autonomy in using association and visualization strategies of learning. It appears that, to no one's surprise, the young learners were usually the least independent and aware of learning the language. In terms of motivation to learn Chinese as expressed by the subjects, it was 'learning cool languages' in the case of teenagers and the instrumental motivation (practical use of a language)

in the group of adults that emerged as the main types of motivation. Although, there was lack of exposure to the Chinese language beyond the classroom, a positive change in language competence could be seen in the last stage of the character learning process. The process of learning the Chinese characters also had some emotional impact on the students, making them respect the language more, and become more language aware and thus able to spot more details in terms of stroke order, stroke shape, etc. in the characters learnt.

Having observed progress in the subjects' competence concerning Chinese characters, it is fair to say that learning Chinese is a serious challenge. It is a struggle not only in terms of writing Chinese characters, but also in terms of 'fighting' with one's own mind. It is a continuing process of doubting one's abilities and talents, which deters many students. Fortunately, due to their persistence in striving for educational success, and their inner motivation, they succeed in learning a satisfactory number of characters, which brings them one step closer to the final success, that is, fluent communication in Chinese.

## Appendix 1. Initial-Final Combination in Standard Chinese

## 汉语普通话声韵母拼合表

INITIAL-FINAL COMBINATIONS IN STANDARD CHINESE COMMON SPEECH

	a	o	e	ê	-i	er	ai	ei	ao	ou	an	en	ang	eng	-ong	-i	-ia	-iao
-	a	o	e	ê		er	ai	ei	ao	ou	an	en	ang	eng				
<b>b</b>	ba	bo					bai	bei	bao		ban	ben	bang	beng		bi		biao
<b>p</b>	pa	po					pai	pei	pao	pou	pan	pen	pang	peng		pi		piao
<b>m</b>	ma	mo	me				mai	mei	mao	mou	man	men	mang	meng		mi		miao
<b>f</b>	fa	fo						fei		fou	fan	fen	fang	feng				
<b>d</b>	da		de				dai	dei	dao	dou	dan	den	dang	deng	dong	di		diao
<b>t</b>	ta		te				tai		tao	tou	tan		tang	teng	tong	ti		tiao
<b>n</b>	na		ne				nai	nei	nao	nou	nan	nen	nang	neng	nong	ni		niao
<b>l</b>	la		le				lai	lei	lao	lou	lan		lang	leng	long	li	lia	liao
<b>z</b>	za		ze		zi		zai	zei	zao	zou	zan	zen	zang	zeng	zong			
<b>c</b>	ca		ce		ci		cai		cao	cou	can	cen	cang	ceng	cong			
<b>s</b>	sa		se		si		sai		sao	sou	san	sen	sang	seng	song			
<b>zh</b>	zha		zhe		zhi		zhai	zhei	zhao	zhou	zhan	zhen	zhang	zheng	zhong			
<b>ch</b>	cha		che		chi		chai		chao	chou	chan	chen	chang	cheng	chong			
<b>sh</b>	sha		she		shi		shai	shei	shao	shou	shan	shen	shang	sheng				
<b>r</b>			re		ri				rao	rou	ran	ren	rang	reng	rong			
<b>j</b>																ji	jia	jiao
<b>q</b>																qi	qia	qiao
<b>x</b>																xi	xia	xiao
<b>g</b>	ga		ge				gai	gei	gao	gou	gan	gen	gang	geng	gong			
<b>k</b>	ka		ke				kai	kei	kao	kou	kan	ken	kang	keng	kong			
<b>h</b>	ha		he				hai	hei	hao	hou	han	hen	hang	heng	hong			
<b>y</b>	ya			ye					yao	you	yan		yang		yong	yi		
<b>w</b>	wa	wo					wai	wei			wan	wen	wang	weng				

## Common Speech

-e	-ü	-ian	-in	-iang	-ing	-iong	-u	-ua	-uo	-uai	-ui	-uan	-un	-uang	-ü	-üe	-üan	-ün
bie		bian	bin		bing		bu											
pie		pian	pin		ping		pu											
mie	miu	mian	min		ming		mu											
							fu											
die	diu	dian			dīng		du	duo		dui	duan	dun						
tie		tian			tīng		tu	tuo		tui	tuan	tun						
nie	niu	nian	nin	niang	ning		nu	nuo			nuan				nǚ	nǚe		
lie	liu	lian	lin	liang	ling		lu	luo			luan	lun			lǚ	lǚe		
							zu	zuo		zui	zuan	zun						
							cu	cuo		cui	cuan	cun						
							su	suo		sui	suan	sun						
							zhu	zhua	zhuo	zhuai	zhui	zhuan	zhun	zhuang				
							chu	chua	chuo	chuai	chui	chuan	chun	chuang				
							shu	shua	shuo	shuai	shui	shuan	shun	shuang				
							ru	rua	ruo		rui	ruan	run					
jie	jiu	jian	jin	jiang	jing	jiōng									ju	jue	juan	jun
qie	qiu	qian	qin	qiang	qing	qiōng									qu	que	quan	qun
xie	xiu	xian	xin	xiang	xing	xiōng									xu	xue	xuan	xun
							gu	gua	guo	guai	gui	guan	gun	guang				
							ku	kua	kuo	kuai	kui	kuan	kun	kuang				
							hu	hua	huo	huai	hui	huan	hun	huang				
			yin		ying										yu	yue	yuan	yun
							wu											

## Appendix 2. Questionnaires

### I. General questionnaire

Sex	Female / Male	
Age	..... years old	
Semestre	..... semestre	
Programme Name		
Chinese level		
Chinese classes	..... hours* /week (*1 hour = 45 minutes)	
Variety of class, e.g. reading, writing, comprehension		
Reason for learning Chinese		
Most difficult area of Chinese language learning?		
Enlist 10 most difficult to write Chinese characters		
Arrange the given difficulties of Chinese characters' learning process from (5) the most difficult to (1) the easiest to learn	a. Stroke order b. Memorizing the 'pinyin' corresponding to the given character c. The translation of the character d. Memorizing the meaning of the character e. Memorizing the visual representation of given 'pinyin'	1. .... 2. .... 3. .... 4. .... 5. ....

### II. Practical test questionnaire (selected examples)

1. Write down the complete 'pinyin' to the below mentioned characters.

士	百	目	太
日	夫	土	工
白	王	大	天

2. Write down the numbers next to the strokes in the appropriate order.

您	四	他	买
---	---	---	---

3. Write down the below mentioned English words in characters

to go	she	Poland	to be

4. Translate the following sentences into Chinese characters.

I am Polish.	
She drinks coffee.	
What date is tomorrow?	
What are you eating?	

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Katarzyna Bańka

## **Psycholinguistische Aspekte der Erlernung von chinesischen Zeichen**

### **Streszczenie**

Celem niniejszego artykułu jest przedstawienie psycholinguistycznych aspektów przyswajania znaków chińskich oraz problemów, jakie napotyka początkujący uczniowie. W pierwszej części artykułu, autorka przedstawiła specyfikę pisowni chińskiej, porównując ją z pisownią języków indoeuropejskich, aby w pełni zrozumieć kolejne części artykułu. Na potrzeby artykułu przeprowadzone zostało roczne badanie uczniów w trzech kategoriach wiekowych (10–15 lat, 16–25 lat, 26 i więcej lat), które zostało przeanalizowane przede wszystkim pod kątem aspektów psycholinguistycznych. Autorka zwróciła szczególną uwagę na początkową motywację uczniów oraz jej zmiany wraz z wzrastającym tempem nauki. Ponadto został przeanalizowany proces uczenia się znaków chińskich, w którym wyszczególnione zostały trzy etapy nauki na przestrzeni jednego roku oraz jego skutki wpływające na prędkość oraz ilość zapamiętywanych znaków.

Katarzyna Bańka

## **Psycholinguistische Aspekte der Erlernung von chinesischen Zeichen**

### **Zusammenfassung**

Der vorliegende Beitrag bezweckt, psycholinguistische Aspekte der Erlernung von chinesischen Zeichen und Probleme, auf die angehende Schüler dabei stoßen, darzustellen. Im ersten Teil zeigt die Verfasserin die Spezifik der chinesischen Schreibweise und vergleicht sie mit der Schreibweise von indoeuropäischen Sprachen. Zum Bedarf des Beitrags wurde eine ein Jahr lang dauernde Untersuchung unter den Schülern in drei Altersgruppen (10–15 J., 16–25 J., 26 und mehr J.) hinsichtlich der psycholinguistischen Aspekte durchgeführt. Die Verfasserin betont besonders die anfängliche hohe Motivation der Schüler und deren Änderung mit dem steigenden Tempo des Unterrichts. Außerdem analysiert sie den Prozess der Erlernung von chinesischen Zeichen, indem sie seine drei Stufen im Verlauf eines Jahres bespricht und deren Folgen für die Geschwindigkeit und Menge der im Gedächtnis behaltenen Zeichen angibt.