Knowledge and Perception of Stroke Order among Chinese-as-a-Foreign Language Students in a Malaysian University

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ABSTRACT

This research presents the knowledge and perception of the Chinese language stroke order among undergraduates of Chinese-as-a-foreign (CFL) language course in a Malaysian university. A total of 73 participants from four levels of minor and option courses participated in this mixed-method study. The data was obtained via questionnaire, teaching intervention and interviews with respondents. The results showed that the overall respondents have a good knowledge of the Chinese language stroke order and perceived it useful in producing accurate Chinese writing, hastening the writing tasks and providing the accurate spelling of words. The data also showed that the respondents at the beginner levels showed a higher score of interest in acquiring the stroke system compared to the advance learners who were keener in enhancing their proficiency in other aspects of the Chinese language writing process. Findings from this study recommend that the teaching of stroke order needs to be implemented at the elementary level for more accurate and effective teaching, learning and retention of writing in a Chinese-as-a Foreign Language course. The results have clear implications for effective language acquisition as well as the teaching and learning of second language.

Keywords:

Chinese-as-a foreign language (CFL), stroke order, perception, language accuracy, writing speed

1. INTRODUCTION

Unlike most writing systems which are phonogram, Chinese character is an ideogram. The Chinese character has the combination of three elements namely shape or outlook, pronunciation and meaning. Every character symbolises a meaning and also a particular sound. In other words, different characters have different meanings. Therefore, the basics to learning Chinese characters or Chinese vocabulary rely on learning how to recognise and to identify the Chinese character.

To begin with, the shape or the outlook of a Chinese character is comparatively different from other characters in other ideogram type of languages because of the two-dimensional structure that is

constructed of various lines. Among others for example the strokes "→", "↓", "▶", "▶", "↓", "↓"), as in the case of 人女中国谢 The lines or strokes, are either separated from each other, intersected or are connected as a whole in one character. Besides having numerous strokes, the Chinese writing structures are indeed complex and the number of total characters to be learned is extensive. It has been noted that in the 3500 ubiquitous Chinese characters used for literary purposes, the average count of the strokes is more than 10 with about 30 types of different strokes (Yang, 2005). The Chinese character writing too needs to be written out meticulously; for example, a slightly longer stroke, or an extra small stroke would connote two different words as seen in the words "末' vs "末', "大' vs "太', "不' vs "木'. These special characteristics of Chinese characters have made the writing, as well as the language a challenge to acquire easily. The respondents difficulties in learning Chinese characters depend on a wide variety of factors, particularly in identifying, writing and remembering them (Shi Dingguo et al, 1998). As such, these problems need to be tackled from the beginning in order to avoid it from affecting the subsequent learning stage, which is the learning of vocabulary, sentence structure and thereafter. Hence, respondents must be able to identify, write and remember the Chinese stroke in order to learn the language more effectively.

Stroke order is a rule on how and where each stroke is started, followed by the second stroke and so on in a single character. For example, the stroke order of '你 and '好 are as below:



Stroke order is set according to the writing principles 'from top to bottom', 'from left to right', 'from inside out' and others. The purpose and the rational of stroke order is to simplify and to speed up the writing process. In 1997, the National Commission on Language & Script Work and the General Administration of Press & Publication published a book on the subject of stroke order, *The Standard of Stroke Order for Commonly Used Chinese Character*, to standardise the frequently used Chinese characters (Zhou, 2007). According to Zhou (2007), the three significance and the functions of stroke order include avoiding mistakes in writing Chinese characters; speeding up written output and to simplify the writing process; as well as to aid in the use of electronic dictionaries for Chinese character input purposes.

Despite the intricacies of the writing, a Chinese character could be written correctly even if the writer does not follow the correct stroke order. This is because it is difficult to accurately trace whether the writer observed the strokes procedures, regardless if the character is written correctly or wrongly. Thus this contributes to the ongoing debate on the issue if the stroke order needs to be stressed in the teaching of Chinese characters, especially in the Chinese-as-foreign language course. As the teaching and learning of stroke order is arduous, many teachers are of the opinion that this aspect can be excluded from the teaching process. This study therefore seeks to explore the knowledge and perception of stroke order among undergraduates who have enrolled in Chinese-as-a-foreign language course. Specifically, the study aims at answering two main research questions on the knowledge of stroke order in learning the Chinese characters. Firstly, the study seeks to identify the respondents' perception of stroke order learning in a CFL classroom and secondly it

attempts to explore the impact of the stroke order knowledge on the speed and accuracy of writing in a Chinese-as-a-foreign language course.

2. **REVIEW OF LITERATURE**

Language teaching strategy aims at achieving certain purposes. The context of language teaching in general, focuses on the delivering process via the approach, method and technique. According to Kamarrudin (1998), an educator who wants to achieve language teaching with quality and effectiveness needs to crucially integrate all the three strategies of approach, method and technique accurately. However, effective integration of all strategies is not easily attainable in certain language teaching, particularly for standard Sino-Tibetan language such as the Chinese language. This is because the Chinese language focuses on ideographic writing system (Huang, 2009) whereby the meaning of the character can also be also be depicted from representational pictures, ideas and images. Studies on Chinese language learning show that one of the greatest challenges for Chinese-as-a-foreign language is learning the Chinese characters (Huang, 2009; Shi et al., 1998; Zhang, 2009). The teachers are usually blamed for the failure in teaching the respondents to produce correct spelling and production of the Chinese characters as well as the lack of interest in teaching the stroke orders to the respondents (Zhao, 2009). A study conducted by Li (2009) proves that the stress on stroke order learning could improve the Chinese language teaching quality; help the respondents recognise and remember the Chinese character easier and improve the respondents' speed and accuracy in writing. Hence, the closest strategy of comprehending and writing the accurate Chinese character is stressing on the stroke system as the stroke is the basic unit of Chinese characters (Zhao, 2009; Yu et al., 2012). Zhao (2009) further argued that the teaching of Chinese character is vital in teaching Chinese-as-a-foreign language. This is because Zhao (2009) posits that, if lexicon is the fundamental of Chinese language teaching, then the Chinese character would be the very fundamental of the fundamental and the stroke order remains as one of the major element in the teaching of Chinese character.

2.1: Chinese Stroke Order Learning Strategy

McGinnis (1999) observed that beginning adult learners use a number of strategies to memorize characters, including rote memorization, creating idiosyncratic stories about how characters look, using the character's semantic and phonetic elements for memorization purposes. Xiaoli and Cohen's (2012) analysis of studies in learning Chinese as a second and foreign language also shows that the general strategies of learning the Chinese character integrates the memorisation process too. The strategies include general strategies for character learning (Chen, 2009; Ma, 2007; McGinnis, 1999; Shen, 2005; Yin, 2003); specific strategies for character learning (Kuo, 2000; Liu & Jiang, 2003; Shen, 2010); character based vs. alphabetic-based languages (Arrow, 2004; Jiang & Zhao, 2001); the effects of CSL/CFL learners' strategy use in character learning (Ke, 1998; Kuo & Hooper, 2004; Shen, 2004; Zhao & Jiang, 2002) as well as strategy instruction and character learning (Chen, 2011). The Chinese stroke order is also known to help Chinese-as-a-foreign language learners an easy approach in writing effectively, memorise the character as well as produce a balanced and elegant writing (Grigg, 2012). Generally, the six rules for all Chinese character writing as cited by Grigg (2012) and other scholars includes, writing the top of the character before those lower down; beginning with the strokes on the left before the strokes on the

right, writing the horizontal strokes (-) before the vertical strokes (-) as well as writing the central stroke first in symmetrical structures. When there is a stroke that cuts across several other strokes, then the stroke should then be written last. Finally in cases where a stroke has frames, the contents of an enclosure should be completed first and the frame closed afterwards. These basic rules, if taught and consolidated from the beginning level, will benefit the respondents in mastering the accurate method of writing the Chinese characters.

The learning of stroke order proposed in this study encompass the recall-based character writing/rote character learning (Liu & Jiang, 2003) and elaborated rehearsal strategies (Shen, 2004). The selection of the strategy is based on the premise that the memory strategies that combine reading, writing, thinking, revision of characters and repeated copying of the characters will generate meaningful self-learning that further enhances the retention and comprehension of the character in the working memory. In order to generate the meaningful self-learning, the respondents need to be motivated to acquire a certain degree of motivation and determination to learn and proceed with further advanced task. This study, as such is based on the cognitive attribution theory (Heider, 1958; Weiner, 1974). When the respondents are attributed with the external knowledge of the stroke order, they will subsequently be in control of the learning process of the Chinese character writing. Then there will be more effort in progressing further in the CFL classroom.

2.2: Chinese-as-a-Foreign Language Course in USM

Chinese-as-a-Foreign Language Course in USM is offered by the School of Languages, Literacies and Translation as option or minor courses. Both these courses offer different levels of proficiency; four levels for the option and five levels for the minor course. The respondents who opt for elective courses (LAC) are encouraged to complete two levels of the two-unit courses while respondents who register for minor courses (LLC) should complete five compulsory four-unit-papers for a total 20 graduation units in the minor package. LAC100-200 courses focus on vocabulary expansion, accurate Hanyu Pinyin pronunciation and sentence construction at various lengths (USM-Course Guide, 2014). At level 200 course, there will also be introduction to over 200 characters as well as composition and text translation. The level 300-400 courses, on the other hand, advance into writing compositions, use of idioms and explore cultural related Chinese text and some elements of Chinese literature at different levels of complexity. (USM - Course Guide, 2014). In the LLC100-200 courses, emphasis is given to the similar content as in option courses but the quantity of vocabulary is tentatively larger in minor courses; both at the elementary and intermediate courses. The level 300-400 gives emphasis to the usage of more complex sentences in a variety of context and for specific purpose. LLC401, for example focus more on the Business Chinese to cater for the respondents who wish to pursue their career in business related field. Although the scope of this study is limited to identifying the knowledge and perception and of stroke order of the Chinese characters, it is significant in identifying the benefits of the stroke order in enhancing the learning of the Chinese language. Such information would provide foundational knowledge for better understanding of the teaching and learning of the Chinese language

3. RESEARCH METHODOLOGY

The study was carried out on 73 respondents in Universiti Sains Malaysia main campus who were taking Chinese-as-a-foreign language courses as minor papers (LLC100 & LLC300) and as option

papers (LAC100, LAC300). This mixed-mode quasi-experimental study employed a research questionnaire, teaching intervention and interviews with respondents who were involved in the experiments. The basic data were analysed using SPSS. A total of 73 sets of questionnaire were collected from LAC100, LAC300, LLC100 & LLC300 respondents from the first semester of 2013/2014 academic session. The questionnaires included demographic data of the respondents, student's knowledge and perception on the effect of learning stroke order in the process of learning Chinese characters and the Chinese language in general. The intervention procedure involved one group with a total of 17 respondents who took LAC100 course in the first semester of 2013/2014 academic session. In experiment 1, respondents were shown a single Chinese character which was written on a piece of paper and placed onto the whiteboard for 3-5 minutes. Then, the respondents were asked to produce the displayed character on a provided piece of paper. These results were labelled with names and numbers. This was followed by an immediate second experiment whereby the respondents were taught on the method to write the Chinese character based on the standard stroke order for the same character from the first experiment. Respondents were given a shorter time, about 2 minutes to learn the character. Then, they were asked to reproduce the character on a separate sheet of paper. The results were labelled with names and numbers to identify the accuracy of respondents' Chinese character before and after learning the stroke order as well as to identify if the knowledge of stroke order could increase the accuracy of writing the Chinese scripts. The interview sessions involved the same respondents who had undergone two weeks of the intervention process and the main purpose of the interview was to find out the impact of the stroke order on the speed of writing Chinese characters. To identify the accuracy component, a total of six Chinese characters were tested in this experiment, '都, '哥, '喝, '那, '国 and '教. The products of the characters before and after stroke order was taught to them were analysed for its accuracy.

4. FINDINGS AND DISCUSSION

A total of 73 questionnaires were collected from the Chinese language course respondents (LLC100, LLC300, LAC100 & LAC300). Most of the respondents were from LAC100 course (46.56%). The respondents consisted of 87.67% females while the male respondents consisted of a smaller percentage of 12.33%. The data showed that more than 80% of the respondents were from the Malay ethnic background while the Chinese comprised of 4.11% and the Indian 1.37% respectively. The 'other' component of ethnicity, a total of 6.85% included Punjabis and Kadazan ethnics. There were also 3 correspondents from foreign countries; particularly Thai (2) and Palestinian (1). The demographic composition also reflects the general demographic profile of the local and foreign respondents who took Chinese language course in USM main campus.

Table 1:	Table 1: The Number of Respondents According to Different Courses									
Course	LLC100	LLC300	LAC100	LAC300	Total					
Numbers	16	18	34	5	73					
Percentage	21.92%	24.66%	46.56%	6.85%	100.00%					

Table 1: The Number of Respondents According to Different Courses

Table 2: Numbers of Respondents According to Gender								
Gender	Male	Female	Total					
Numbers	9	64	73					
Percentage	12.33%	87.67%	100.00%					

Table 3:	Table 3: Numbers of Respondents According to Ethnic Groups								
Ethnic	Malay	Chinese	Indian	Others	Total				
Numbers	64	3	1	5	73				
Percentage	87.67%	4.11%	1.37%	6.85%	100.00%				

4.1: Knowledge and Comprehension on Stroke Order

Generally, all the respondents had the knowledge and accurate comprehension of the stroke order. The respondents displayed a good knowledge on stroke order. The basic level respondents have attended the course for less than 10 weeks and only two respondents from LAC100 showed some difficulty in comprehending the stroke order.

Table 4: Do you know what is "stroke order"?								
Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE			
Mean	1.00	1.00	1.06	1.00	1.015			
		Scale 1: Yes		2: No.				

Table 5 shows that more than 96% of the respondents had a high score or accurate comprehension on stroke order. However, the comprehension was seen less among the basic level respondents; one respondent was recorded in LAC100 course and four respondents in LLC100 course respectively.

Table 5: Respondents' Comprehension towards Stroke Order.

Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE
Numbers	15/16	18/18	30/34	5/5	93.15%

On the question of '*Does the learning of stroke order help in writing Chinese characters*?' the majority of respondents chose the 'Agree' and 'Strongly Agree' scale. The average mean obtained was 4.6 with the respondents from LLC300 having the highest score of 4.78. This shows that the respondents who have received prior basic knowledge and exposure to the Chinese language and characters found the learning of stroke order to be helpful in their writing process.

Table 6: Learning stroke order helps in writing Chinese character.

Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE		
Mean	4.69	4.78	4.53	4.40	4.6		
Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree							

The group that have received prior basic knowledge and exposure to the Chinese language and characters, particularly from the level three courses (LAC300, LLC300) also found it easier to

remember the Chinese characters by remembering the general rule of the stroke order. The average mean score was 4.17. It was also found that the respondents from the third level also noted that the stroke order helped them in remembering various Chinese writing, particularly the characters with pictographic elements.

Table 7: I can remember the Chinese script better if I remember the stroke order.								
Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE			
Mean	4.13	4.22	4.12	4.20	4.17			
Scale 1: Strongly	Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree							

4.2: Perception of the Benefits of Stroke Order Knowledge in Enhancing the Accurateness and Speed of the Chinese Character Writing

All the respondents in the various levels of the course disclosed that remembering the stroke order had helped them to write the Chinese script correctly. One element that facilitated them to follow easily was the understanding of the basic principles of stroke order. Moreover, the respondents also noted that they are able to identify their own mistakes with the accurate knowledge that they have in the stroke order, particularly in the length of the stroke that is applicable for certain characters. Table 8 below shows the high average mean score for both the respondents who have registered for the Chinese-as-a-foreign language as minor courses as well as for those who have enrolled in the elective courses.

Table 8: I can write the Chinese script correctly if I remember (or follow) the stroke order.

Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE
Mean	4.38	3.94	4.35	4.00	4.17
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Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

The respondents too, generally agree that the learning of stroke order has assisted them to speed up their writing of the Chinese character. They are able to recall the number of strokes easily and this helps them to write out the character much faster. The data in Table 9 shows that the respondents from the level 100 minor courses had benefited more compared to those in the level 100 elective course. The level 300 respondents from both the minor and elective courses however, showed a slight increase.

Table 9: I can write the Chinese script much faster if I remember (or follow) the stroke order.							
Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE		
Mean	3.94	4.33	4.47	4.20	4.24		

Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

4.3: Perception on the Need of Learning Stroke Order in Writing Chinese Character

Almost all the respondents perceived remembering stroke order as vital in learning to write the Chinese character. The average mean score was 4.36 with all the respondents from each course attaining an above 4.00 point score (Table 10). This most probably accounted to why the respondents did not consider remembering the stroke order as a burden, despite having the question framed negatively as shown in Table 11. In their interviews, the respondents noted that the stroke order gave them "a sense of direction" in writing and they feel more confident to write due to the knowledge of the stroke order. This in turn, helped the respondents to enhance the speed in their writing process.

Table 10: *Learning/remembering stroke order is important in learning Chinese character writing.*

Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE
Mean	4.06	4.5	4.29	4.60	4.36

Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

 Table 11: Learning/remembering stroke order is a burden and a waste of time in learning Chinese.

Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE			
Mean	2.5	2.11	1.88	1.00	1.87			
Scale 1: Strong	Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree							

The ability to have more speed in writing on the other hand has helped the respondents to increase their willingness to follow the stroke order rules. The willingness of respondents to follow the stroke order was 3.75; encompassing the 'Neutral' and 'Agree' scale. The data also recorded the basic elective course respondents (LAC 100) showed a higher willingness to follow the stroke order (see Table 12). This reflects the dependency of beginner respondents on stroke order in learning Chinese character compared to advanced level respondents who may have rely less on stroke order. However, when the respondents were asked the question of giving emphasis to stroke order in teaching Chinese-as-a-foreign language, all the respondents agreed that it is crucial to teach the stroke order from the beginning stage (see Table 13)

Table 12: I always follow the stroke order in writing Chinese script.

5.5			0	1	
Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE
Mean	3.81	3.72	3.85	3.60	3.75

Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

Table 13: From my experience of learning Chinese language, I think stroke order should beemphasized in teaching the LAC100 & LLC100 learners.

Respondents from	LLC100	LLC300	LAC100	LAC300	AVERAGE
Mean	4.5	4.33	4.35	4.80	4.50

Scale 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

4.4: Effects of Chinese Language Stroke Knowledge on the Writing Accuracy

As stated earlier, a total of 6 Chinese characters were tested in this experiment, '都(dōu), '哥(gē), '喝(hē), '那(nà), '国(guó) and '教(jiāo). A post-test was carried out to analyse the accuracy of the stroke order according to 4 scales of accuracy; 'Absolutely Wrong', 'Partly Correct', 'Almost Correct', and '100% Accurate'. After the intervention process, the level of accuracy in writing the Chinese characters recorded an increase in the writing accuracy. The highest

increase in the mean score was 0.666. One of the result showed zero increase. The study showed that most of the characters produced before intervention was 'Partially Correct' but the post-test results showed an "Almost Correct" answer. The more proficient respondents who obtained "100% Correct" retained their high level of accurateness in the post-test results. This is because the words selected consist of simple-structured and complex-structured words. The selected words ranged from comparatively easy to a higher level of difficulty that can easily cause the respondents to make mistakes.

The illustration in Figures 1 and 2 below are used to show the type of mistakes that is commonly made by the respondents in this study. Certain strokes should be written separately, and not overlap on other strokes while (as in Fig.1) while there are characters that needs the strokes to be struck against another (as in Fig.2). Such orders and rules need to be taught to the learners to avoid mistakes. In some other cases, respondents need to know when to write certain strokes separately in two strokes but learners tend to join them together, or to write them in one stroke. For example, the vertical (1) and vertical hook (1) for the word "哥" should be written separately, but most of the learners in this study tend to join the two strokes together; writing it as a long vertical hook.

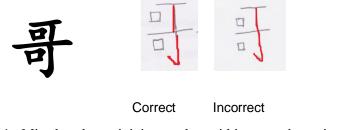


Figure 1: Mistakes due to joining strokes within two sub-sections of a character

The strokes that should be crossed against another stroke would be considered wrong if the stroke is not marked across the other. For instance, the left structure of " \mathbb{M} ' will be incorrect if it is written as " \mathbb{A} ". See Figure 2 below:



Figure 2: Mistakes due to non-striking of stroke in a character

As discussed earlier, six characters were utilised to measure the accuracy of the respondents in this study. The overall results show that, the mean accuracy for the six characters before and after stroke order intervention were recorded at 3.48 (between "Almost Correct" and "100% Correct"). A 3.751 mean score was recorded after the intervention process with a (more to "100% Correct"). The variance was recorded at 0.27. In other words, the mean accuracy of the respondents' writing recorded an improvement of 0.27 score after the stroke order was taught (see Table 14 below):

Chinese	Teaching	Numbers				MEAN	VARIAN
Characte r	of Stroke Order	1	2	3	4		Т
都	Before	0	1	9	5	3.400	+0.267
	After	0	0	5	10	3.667	
町	Before	0	0	6	9	3.600	+0.333
•	After	0	0	1	14	3.933	
喝	Before	0	3	8	4	3.067	+0.666
	After	0	0	4	11	3.733	
那	Before	0	1	10	6	3.294	+0.177
,	After	0	1	7	9	3.471	
国	Before	0	0	4	13	3.765	0
	After	0	0	3	14	3.765	
教	Before	0	0	3	14	3.765	+0.117
	After	0	0	2	15	3.882	

Table 14: The Pre-test and Post-Test Results on Accuracy of the Stroke Order Intervention

Scale 1: Absolutely Wrong; 2: Partially Correct; 3: Almost Correct; 4: 100% Correct

The interview results showed that the respondents perceived it vital to have a thorough knowledge of the stroke order as it is said to have given "*a sense of direction*" in identifying the accurate procedure of writing the strokes. The knowledge however, is preferred to be acquired in the beginning stage as it helps them to "know what they actually do not know" in a foreign language learning context. Of particular aspects that were identified as crucial in the CFL context of this study was the length of the stroke, joining and separation of strokes, accurate principles of writing the strokes and enclosures of stroke within a character.

5. CONCLUSION

The study analysed the knowledge and perception of the Chinese language stroke order among undergraduates of Chinese-as-a-foreign (CFL) language course in a Malaysian university. In terms of writing accuracy, it could be found that stroke order is much more needed for the learning and teaching of complex-structured character compared to simple-structured ones. In other word, the effect of stroke order is different for different character structure. As proven in Li (2009) study, this study too supports Li's (2009) finding that the knowledge of stroke order of the Chinese character will enhance the speed and accuracy of the CFL respondents. A better comprehension of the stroke order knowledge helps the respondents to remember and recognise the accurate procedures of writing the strokes. Although this study is limited to a small population and corpus, it would be beneficial to study the impact of the stroke knowledge on the different forms of the simple and complex structure of the Chinese characters. It is also evident that the teaching and learning of stroke order has a very positive effect in learning the Chinese characters and the Chinese language. The respondents articulated the need for stroke order to be stressed in the teaching of the Chinese characters among the elementary level respondents, particularly in the LAC100 and LLC100 course in this study. However, it is pertinent to note that although the knowledge of stroke order helps to improve the speed in writing out the simple structure of the Chinese characters, it has limited impact

on the accuracy of the simple structure character writing. Likewise, the knowledge of the stroke order has greater implication on the speed and accuracy of complex structure of the Chinese character. One significant implication of this study is that CFL teachers would be able to help the students identify their own error and mistakes in writing the Chinese characters. At the same time, they would be able to reduce the anxiety of writing process in CFL classroom and be able to integrate the three elements of approach, method and technique of enhancing language proficiency in language learning as proposed by Kamaruddin (1998) for a more effective learning. In a nutshell, it is clear that the learning of stroke order helps in the process of learning Chinese characters among the respondents of the CFL course in this study. Thus, it is recommended that stroke order knowledge be stressed in the learning the Chinese characters, especially in the elementary level such as LAC100 and LLC100 courses. It is hoped that a detailed, extended research on the effect of stroke order in the near future. Specific studies on the impact of stroke order knowledge on the accuracy of simple and complex structure Chinese character may also shed some light on effective teaching of Chinese-as-a-foreign language.

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appendix (i)

Survey Questionaire

Dear Respondents,

This survey aims to analyse the knowledge and perception of USM Chinese-as-a-foreign language course learners on the stroke order of Chinese script. The survey is purely an academic research. We hereby assure you that all information provided will be treated as confidential for the purpose of this research. We would like to thank you in advance for your valuable time and assistance in completing the following questionnaire. Your contribution towards this research is greatly appreciated.

Thank you!

Yours sincerely, Lee Pin Ling Dr.Paramaswari Jaganathan

1) Demographic Profile

Course: LAC 100/ LLC 100/ LAC300 / LLC300

Sex: M / F

Race: Malay / Chinese / Indian / Others (Please specify: _____)

2) Questions

- 1. Do you know what is "stroke order" in Chinese language learning? Yes No
- 2. If Yes, please briefly explain what you understand by "stroke order" in Chinese language learning.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
	1	2	3	4	5				
3	3 Learning stroke order helps in writing Chinese characters.					2	3	4	5
4	4 I can remember the Chinese scripts better if I remember the stroke order.					2	3	4	5
5	5 I can write the Chinese scripts correctly if I remember (or follow) the stroke order.					2	3	4	5
6	6 I can write the Chinese scripts faster if I remember (or follow) the stroke order.				1	2	3	4	5
7	7 Learning/remembering stroke order is important in learning the Chinese character writing.				1	2	3	4	5
8	Learning/remembering stroke order is a burden and a waste of time in learning Chinese.					2	3	4	5
9	I always follow the stroke order in writing Chinese script.					2	3	4	5
10	10 From my experience of learning Chinese language, I think stroke order should be emphasized in teaching the LAC100 & LLC100 learners.				1	2	3	4	5

Please indicate perception of each statement by **circling** only **ONE** (1) of the five given as below: