Universiti Teknologi MARA
Cawangan Kedah
Kampus Sungai Petani

Voice of Academia

Academic Series of Universiti Teknologi MARA Kedah

VoA 2021
Volume 17 Issue 2

COMMITTEE PAGE

Advisory Board

Professor Dr. Mohamad Abdullah Hemdi
Campus Rector

Associate Professor Ts. Dr. Azhari Md Hashim
Deputy Rector, Research and Industrial Linkages Department

Chief Editor

Dr Junaida Ismail
Faculty of Administrative & Policy Studies,
Universiti Teknologi MARA *Cawangan Kedah*

Editorial Team

Aishah Musa,
Academy of Language Studies,
Universiti Teknologi MARA Cawangan Kedah, Malaysia

Etty Harniza Harun,
Faculty of Business Management,
Universiti Teknologi MARA Cawangan Kedah, Malaysia

Mohd Nazir Rabun
Faculty of Administrative Science and Policy Studies,
Universiti Teknologi MARA Cawangan Kedah, Malaysia

Syahrini Shawalludin
Faculty of Art and Design,
Universiti Teknologi MARA Cawangan Kedah, Malaysia

Suhaida Abu Bakar
Academy Contemporary of Islamic Studies,
Universiti Teknologi MARA Cawangan Kedah, Malaysia

Khairul Wanis Ahmad
Facility Management & ICT Division,
Universiti Teknologi MARA Cawangan Kedah, Malaysia

Editorial Board

Content Reviewer

Associate Professor Dr Zalinda Othman
Universiti Kebangsaan Malaysia

Associate Professor Dr Fadzilah Azni Ahmad
Universiti Sains Malaysia

Associate Professor Dr Mahadir Ladisma @ Awis
Universiti Teknologi MARA

Associate Professor Dr Noor Zahirah Mohd Sidek
Universiti Teknologi MARA

Associate Professor Dr Roziya Abu
Universiti Teknologi MARA

Associate Professor Dr Wan Adibah Wan Ismail
Universiti Teknologi MARA

Dr Ainul Azmin Md Zamin
Universiti Islam Antarabangsa Malaysia

Dr Azlyn Ahmad Zawawi
Universiti Teknologi MARA

Dr Azyyati Anuar
Universiti Teknologi MARA

Dr. Dahlia Ibrahim
Universiti Teknologi MARA

Dr Mahadzir Ismail
Universiti Teknologi MARA

Dr Mohd Nasir Ayob
Universiti Teknologi MARA

Dr Muhamad Khairul Anuar Zulkepli
Universiti Teknologi MARA

Dr Noorhaslinda Abd Rahman
Universiti Sains Malaysia

Dr Norhidayah Ali
Universiti Teknologi MARA

Dr Nur Zafifa Kamarunzaman
Universiti Teknologi MARA

Dr Radzliyana Radzuan, AIIA
Universiti Teknologi MARA

Dr Siti Zuliha Razali
Universiti Sains Malaysia

Language Reviewer

Dr Wan Irham Ishak
Universiti Teknologi MARA

Aishah Musa
Universiti Teknologi MARA

Azlan Abdul Rahman
Universiti Teknologi MARA

Bawani Selvaraj
Universiti Teknologi MARA

Ho Chui Chui
Universiti Teknologi MARA

Juwairiah Osman
Universiti Malaysia Pahang

Nor Aslah Adzmi
Universiti Teknologi MARA

Robekhah Harun
Universiti Teknologi MARA

Samsiah Bidin
Universiti Teknologi MARA

Sharina Saad
Universiti Teknologi MARA

Shafinah Mohd Salleh
Universiti Teknologi MARA

Allahyarhamah Zetty Harisha Harun
Universiti Teknologi MARA

e-ISSN: 2682-7840

© Voice of Academia is jointly published by the Universiti Teknologi MARA Caawangan Kedah, Malaysia and Penerbit UiTM (UiTM Press), Universiti Teknologi MARA Malaysia, Shah Alam, Selangor.

TABLE of CONTENTS

Voice of Academia
Academic Series of Universiti Teknologi MARA Kedah

Voice of Academia Vol 17 (II) June 2021

Voice of Academia

ISSN: 1985-5079

EDUCATIONAL CARD GAME FOR CHINESE CHARACTER LEARNING

Ting Hie Ling[*] , Lam Kai Chee[2]

[1]*School of International Chinese Studies, East China Normal University*
[1]*Academy of Language Studies, Universiti Teknologi MARA, Sarawak*
[2]*Faculty of Language and Communication, Universiti Malaysia Sarawak*

ARTICLE INFO

Article history:

Received Feb 2021
Accepted May 2021
Published June 2021

Keywords:

Chinese character; educational card game; recognition of characters; perception; performance

Corresponding Author:
tinghieling@uitm.edu.my

ABSTRACT

Chinese characters often categorized as an ideographic or logographic writing systems. In comparison, Chinese characters have different writing systems with alphabetical writing systems. Learners show unsatisfactory results due to the complexity of orthographic structure in Chinese characters which also led to a negative impact on Mandarin learning. Thus, an educational card game, namely "Chinese Character Battle (CCB)" was designed for Mandarin learners to learn Chinese characters. This educational card game was implemented in Mandarin as Foreign Language (MFL) classroom for this preliminary study as a step to explore users' perceptions about CCB and the impact of CCB in Chinese character recognition. An online survey, pre-test, and post-test were used to achieve the objectives of this study. A recorded video of "How to Play CCB" was shared with participants prior to the use of CCB. Non-native Chinese learners from University Teknologi Mara, Sarawak branch, Mukah campus participate in this study. The findings of this study revealed that: (1) participants responded positively towards the use of CCB; (2) the implementation of CCB showed positive impact on Chinese character recognition. Hence, it could be concluded that CCB is an effective and useful supplementary learning tool for Mandarin learners to improve their Chinese character recognition

1. Introduction

"Hànzì ( )", Chinese characters, is the earliest form of written language in the world. Going down in the history of Chinese characters, it can date back approximately 5000 years (Chua, Tan & Lin, 2015). According to Jiang (2001), learning Chinese characters is essential for Mandarin learners in order to further their understanding in mastering the language. Most of the scholar (Shen, 2004; Wang, Perfetti, & Liu, 2003; Everson, 1998; Ting, Ch'ng & Norseha, 2020) claimed that Chinese characters considered as one of the main challenges for Mandarin as Foreign Language (MFL) learners which included recognition, reading, and writing of Chinese characters due to its ideographic writing system which is significantly different from alphabetic writing system such as English, Malay, Spanish, etc.

Learning Chinese characters is difficult because there are too many difficult characters to remember, too many difficult strokes to write, and too many difficult phonemes to read. Chinese character writing system could be confusing neither native-Chinese learners nor non-native Chinese learners due to its orthographic structure (Ye, 2011). The difficulties not only decelerated the learning process in Mandarin but also led to demotivation of learning Mandarin. To address this problem, it is indeed to design a creative and effective pedagogical approach in teaching and learning Chinese characters that help learners to acquire Chinese characters better.

1.1 Problem Statement

Character recognition and production supported the development of reading and writing skills in Chinese which is more important than writing (Shen, 2005; Allen, 2008). Fang (1996) found that the students' ability to recognize and identify different semantics, phonetics, and function in the character structure is forecast reading and the mastery of their language. In comparison, it shows great differences with the alphabetical script made it even harder for learners to pick up the language, especially for those who had no supportive background of Mandarin. Thus, Ho, Ng, and Ng (2003) suggested different word recognition strategies are required for Chinese character learning. Yet, in order to be fully literate in Chinese language there are a huge number of Chinese characters need to memorize and learn. It is approximately 3500 Chinese characters that need to be learned in order to enable learners to produce characters writing input which is a challenge for non-native Chinese learners.

Due to the difficulties of Chinese character writing system, learners might need to spend more effort in recognizing Chinese characters. As a result, character reproduction might demonstrate extremely unsatisfactory results and the entire process of learning Chinese language might slow down significantly. Research by Jen and Xu (2000) found that 91% of the learners decided to quit Chinese language class because of the hurdles of learning Chinese characters. The number of enrolment in MFL beginner level seems to be decreasing and it shows a low rate of enrolment for MFL higher level (Tian, 2009). However, Chinese characters should not be excluded from Mandarin classrooms since it is essential for learners to cope with the higher level of Mandarin learning (Ch'ng, Ting & Chuah, 2018). Majority of the Mandarin language instructors tend to explore different methods of teaching Chinese characters, however, they have not reached the desired outcomes. Thus, an educational card game named "Chinese character Battle (CCB)" was introduced with the aim to motivate learners in their learning of Chinese characters.

1.2 Research Objectives

This study was carried out to achieve the following objectives:

1. To explore users' perception of the use of educational card-game, namely Chinese Character Battle (CCB).
2. To explore the impact of CCB in the learning of Chinese character recognition.

1.3 Research Questions

The research questions of this study are as follow:

1. What is users' perception towards CCB as a Chinese character learning tool?
2. What is the impact of CCB in the learning of Chinese character recognition?

2. Methodology

2.1 Participants

Participants of this study are Diploma students from Faculty of Business and Management (FPP) at Universiti Teknologi MARA, Sarawak Branch, Mukah campus who have registered Foundation Mandarin (Level II). They were non-native Chinese learners. Although they had gone through or passed Foundation Mandarin (Level I) in the previous semester, their Chinese proficiency level was not high. Their knowledge of the Chinese characters was limited due to the limitation of lecture hours. Participants were given 1 hour per week of exposure to the CCB routine for 5 weeks.

2.2 Instrument

There are several instruments designed for this study which include a set of self-designed educational card-game, a questionnaire, a pre-test, and a post-test. 72 Chinese characters printed on the card and 72 question cards were designed and prepared according to the syllabus of Foundation Mandarin (Level I and Level II). As participants for this study only including those who enrolled in Foundation Mandarin (Level II), thus only 36 characters and question cards were selected. Each Chinese character card comprises Chinese characters, meaning, pronunciation, part of speech and Chinese Alphabet (Hànyǔ Pīnyīn,汉语). Meanwhile, the question card consisted of evolution, visualized Chinese characters, and hints in Mandarin and English. The sample of Chinese character card and question card was as follow:

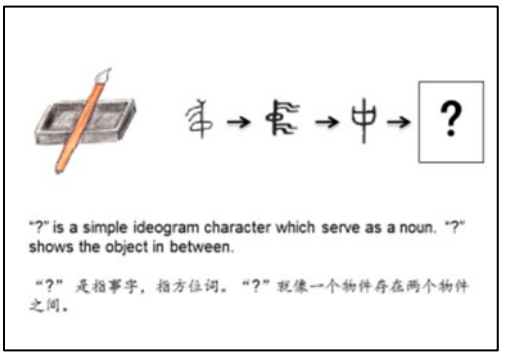


Figure 1: Samples of Chinese character Card (Left) and Question Card (Right)

A questionnaire was constructed using Google form and administered to the participants of this study. The online survey comprises three parts. Part A was used to gather the demographic information of respondents such as gender, age, proficiency level of Mandarin, and program. Part B is a self-developed questionnaire to obtain information about users' perceptions towards the use of CCB, while Part C was a Chinese character recognition test. The items presented in part B were 15 five-points Likert scale items ranging from 1(Strongly Disagree) to 5 (Strongly Agree). Part B was used to answer the research question 1 while 20 items of the Chinese characters recognition test which developed in Part C was used to answer the second research question of this study.

SPSS (Statistical Package for Social Science) version 25 was employed to analyze the collected data. The findings of this study were presented in the form of mean (M), standard deviation (SD), and percentage.

2.3 Data Collection Flowchart

The flowchart of data collection was shown in Figure 2. All Diploma students who enrolled in Foundation Mandarin (Level II) were selected to participate in this study. They were informed that the pre-test and post-test will not affect their final exam results. The information and suggestions which they provided in the questionnaire will only be used for the research purposes.

Participants were asked to complete the Chinese characters recognition test in the pre-test. After the pre-test, all participants were given the opportunity to be exposure to CCB. A recorded video of "How to play CCB" was given to them before they start playing CCB. A post-test was conducted after participants learned Chinese characters for five weeks with the use of CCB. Participants were also asked to complete the questionnaire after the post-test. The pre-test score, post-test score and data from questionnaire were then transferred into SPSS to compute and analyze. The test score of both pre-test and post-tests was compared.

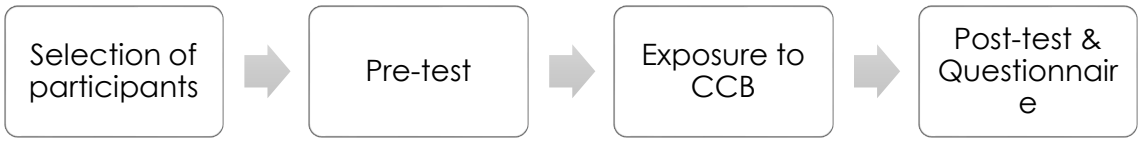


Figure 2. Data collection Flowchart

3. Results and Discussion

The findings of this study are reported and discussed in this section. The findings included a demographic profile of participants, users' perceptions towards using CCB and effectiveness of using CCB in Chinese characters recognition.

3.1. Demographic profile

Descriptive statistics on the demographic profile of participants are shown in Table 2. A total of 125 non-native Mandarin learners with ages ranging from 18 to 22 years old enrolled in Foundation Mandarin (Level II) involved in this study. All participants passed Foundation Mandarin (Level I) before they joined Foundation Mandarin (Level II). As shown in Table 2, majority of participants, 57.6% are 18-year-old. Participants are 19-year-old accounted for 34.4%, and participants aged 20

were 4.8%. Only a small minority, 1.6% participants are 21 and 22 years old. 33 participants were male, and 92 participants were female. 56% of participants are students of Diploma in Business (BA111) while 44% of participants are students of Diploma in Banking (BA119).

Table 1: Demographic Profile of Participants

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	33	26.4	26.4	26.4
Female	92	73.6	73.6	100
18	72	57.6	57.6	57.6
19	43	34.4	34.4	92.0
20	6	4.8	4.8	96.8
21	2	1.6	1.6	98.4
22	2	1.6	1.6	100.0
BA111	70	56.0	56.0	56.0
BA119	55	44.0	44.0	100.0

3.2. Users' perceptions towards the use of CCB card game in learning Chinese character

The percentage mean score and standard deviation of users' perceptions towards the use of CCB are shown in Table 3. The interpretation of the mean score was indicated as high, moderate, and low as follow:

Table 2: Interpretation of mean score

Mean Score Range	Interpretation
3.68- 5.00	High
2.34-3.67	Moderate
1.00-2.33	Low

As shown in table 3, participants generally respond positively towards the use of CCB in their Chinese character learning. This is shown clearly by the mean score ranging from 3.90 to 4.25. Majority of participants reported that "CCB makes Chinese character learning more interesting (item 3)" to which it has the highest mean score (4.28). Most participants agreed that the use of CCB had given them a lot of benefits (Item 1, Mean= 4.25). Moreover, participants expressed their interest and favored to use CCB in item 2 (I am very interested in using CCB for learning Chinese character, Mean= 4.25) and item 14 (I wish I had more opportunities to learn Chinese character using CCB, Mean= 3.95). Participants also claimed that learning Chinese characters with CCB is encouraging as presented in item11 (Looking for answers to questions given in CCB is very encouraging, Mean= 4.19). Participants were confident with the usability of CCB to helps them in critical thinking (Item 9, Mean= 4.10), increasing their cognitive development in Chinese characters learning (Item 12, Mean= 3.95) and made Chinese characters learning easier (Item 4, Mean= 4.10). As presented in table 3, participants reported that CCB is considered as a motivating instrument for them to learn Chinese characters as shown in item 6 (CCB motivates me to a great extent for Chinese character learning, Mean=3.99). In addition, the type of question asked on the cards was

challenging (Item 10, Mean= 4.22) and matched their subject syllabus (Item 8, Mean= 3.99). Participants also pointed out the value of CCB in item 13 (It is worth trying to use CCB for Chinese character learning in the future, Mean= 4.24) and Item 15 (I would suggest CCB to others, Mean= 3.96). The high mobility of CCB was presented in item 5 (CCB enables me to learn Chinese characters according to my own pace and sequence, Mean= 4.05). Finally, CCB was claimed to create a fun and relaxed environment in Chinese character learning (Item 7, Mean= 3.90).

Table 3: Users' Perceptions towards the use of CCB

No	Item	1=SD	2=D	3=N	4=A	5=SA	Mean	SD
1.	CCB gives me a lot of benefits.	1.6	9.6	6.4	26.4	56.0	4.25	1.046
2.	I am very interested in using CCB to learn Chinese characters.	3.2	12.8	12.8	28	43.2	3.95	1.169
3.	CCB makes Chinese character learning more interesting.	3.2	8.8	7.2	17.6	63.2	4.28	1.127
4.	CCB makes Chinese character learning easier.	3.2	9.6	14.4	19.2	53.6	4.10	1.162
5.	CCB enables me to learn Chinese characters according to my own pace and sequence.	4.0	8.0	12.0	29.6	46.4	4.05	1.126
6.	CCB motivates me to a great extent for Chinese character learning.	2.4	10.4	10.4	39.2	37.6	3.99	1.058
7.	CCB created a fun and relaxed environment in Chinese character learning.	4.8	8.8	15.2	33.6	37.6	3.90	1.145
8.	The contents of the CCB match my subject syllabus	4.8	8.8	14.4	26.4	45.6	3.99	1.181
9.	CCB helps me to think critically.	4.0	8.8	12.0	23.2	52.0	4.10	1.162
10.	The questions in CCB are challenging.	2.4	9.6	8.0	23.2	56.8	4.22	1.098
11.	Looking for answers to questions given in CCB is very encouraging.	1.6	11.2	8.0	20.0	59.2	4.19	1.082
12.	CCB increased my cognitive development in Chinese characters learning.	1.6	10.4	9.6	24.0	54.4	3.95	1.169
13.	It is worth trying to use CCB for Chinese character learning in the future.	4.8	9.6	12.8	31.2	41.6	4.24	1.102
14.	I wish I had more opportunities to learn Chinese characters using CCB.	2.4	9.6	5.6	24.8	57.6	4.25	1.084
15.	I would suggest CCB to others.	4.0	10.4	14.4	27.2	44.0	3.96	1.170

*1= SD (Strongly Disagree); 2= D (Disagree); 3= N (Neutral); 4= A (Agree); 5= SA (Strongly Agree); SD= Standard Deviation

3.3. Effectiveness of the use of CCB in learning Chinese characters

Figure 3 demonstrated the comparison of Chinese characters recognition performance in pre-test and post-test among participants after the use of CCB. The findings indicate the number of participants who passed the pre-test on the Chinese character recognition test was 43.2% (n= 54). However, they show increment in their post-test after using CCB, 82.4% (n= 103) as compared to the pre-test. The difference in passing rate of pre-test and post -test among participants were 39.2%. The result presented in figure 2 also revealed that the number of participants who failed in the post-test has been reduced from 56.8% (n= 71) to 17.6% (n= 22) after the implementation of CCB in their Chinese characters learning. From the results, it can be inferred that the implementation of CCB has enhanced users' performance in the recognition of Chinese characters.

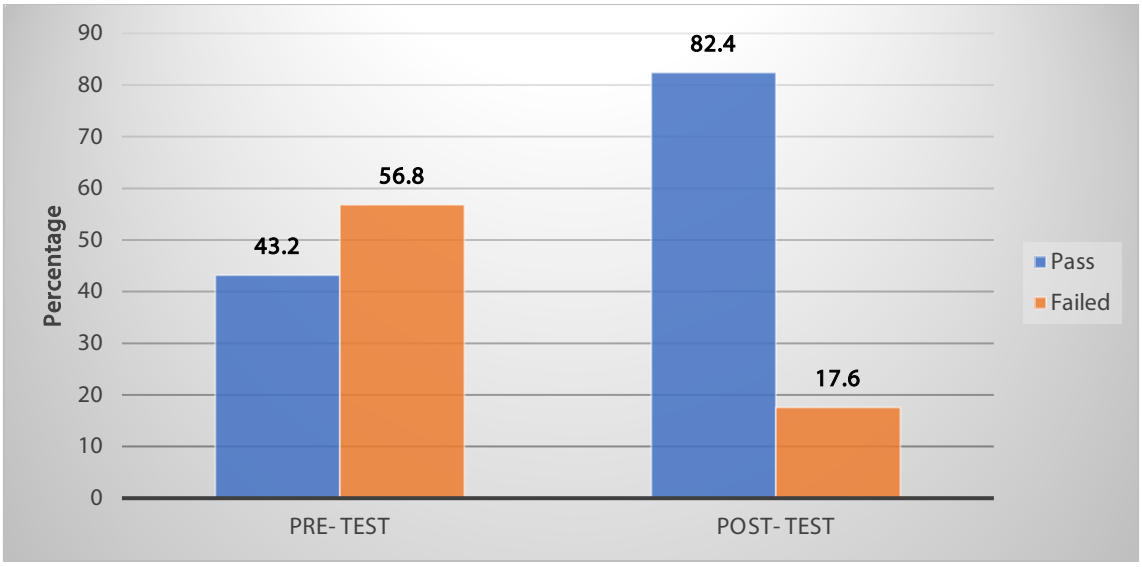


Figure 3: Comparison of Users' Performance in Pre-test and Post-test

4. Conclusion

Based on the findings above, we can conclude that CCB is a potential educational card game for Mandarin learners to enhance their recognition of Chinese characters. The great differences of performance in pre-test and post-test have proved CCB as an effective and useful supplementary learning tool for Mandarin learners. This card game created a relaxed, fun, and engaging learning environment for learners to learn Chinese characters compared to the traditional teaching method which depend heavily on mechanical memorizzation. This kind of creative educational card game can also engage and motivate learners in learning Chinese characters. According to Cohen (2009), the images, image creation, and/or dual coding had a beneficial effect on learners' memorization of the vocabulary words. Therefore, it is believed that the visualization of Chinese characters provided in this educational card game has strengthened learners' memory which enhanced their performance in recognizing Chinese characters. As mentioned by Ho et al. (2003), it is necessary to look for different word recognition strategies for Chinese character learning. Hence, it is suggested that more educational card games that are suitable for Mandarin learners to learn Chinese characters need to be created in order to meet the needs of Mandarin learners. This educational card game not only recommended for Mandarin learners but also highly

recommended for parents. When educational card games were employed by parents, it helps to enhance their children's Chinese character acquisition apart from fostering relationships with their children. Furthermore, CCB can be commercialized for local and international schools, universities, or any institutions that offer Basic Mandarin courses. Those who are interested to know more about Chinese characters or aims to enhance their mastery of Chinese characters can also utilize this card game in their learning. The population of this study only caters to non-native learners which may not be conclusive enough to regard it as an effective tool for teaching and learning Chinese characters for all Mandarin learners. It is recommended that a larger population which included native Mandarin learners and qualitative approaches such as semi-structured interviews, teachers, or parents' interviews can be conducted in order to provide more concrete and comprehensive justification on the effectiveness of the card game.

Acknowledgement

We would like to express our appreciation to all participants from Universiti Teknologi MARA Sarawak Branch, Mukah campus who have contributed in completing the survey, pre-test and post-test of Chinese Character Battle (CCB) innovation project.

References

Allen, J. R. (2008). Why learning to write Chinese is a waste of time: A modest proposal. *Foreign Language Annals, 41*(2), 237-251.

Ch'ng, L. C., & Ting, H. L., & Chuah, K. M. (2018). Common mistakes in Chinese stroke writing among non-Chinese learners. *Insight Journal, 2*, 1-13.

Chua, H. H., Tan, T. G. & Lin, C. Y. (2015). A review of challenges in learning Chinese characters among non-native learners in Malaysia. *Indian Journal of Arts, 5*(16), 93-100.

Cohen, M. (2009). The effectiveness of imagery interventions on the vocabulary learning of second grade students. Fall 10-22-2009, NERA Conference Proceedings 2009.

Everson, M. (1998). Word recognition among learners of Chinese as a foreign language: investigating the relationship between naming and knowing. *The Modern Language Journal, 82*, 194-204.

Fang, J.Y. (1996). Study on relationship between character recognition and the lexical knowledge of primary school students. *Journal of Primary Education*, 9, 211-259.

Ho, C. S., Ng, T., & Ng, W. (2003). A "radical" approach to reading development in Chinese: The role of semantic radicals and phonetic radicals. *Journal of Literacy Research, 35*(3), 849-878.

Jen, T., & Xu, P. (2000). Pen less Chinese character reproduction, Sino-Platonic Paper, 102, 1-15.

Jiang, X., & Zhao, G. (2001). Chuji jieduan waiguo liuxuesheng Hanzi xuexi celue de diaocha yanjiu 初级阶段外国留学生汉字学习策略的调查研究[A survey on the strategies for learning Chinese characters among CSL beginners]. *Language Teaching and Linguistic Studies,* (4), 10-17.

Shen, H. H. (2004). Level of cognitive processing: Effects on character learning among non-native learners of Chinese as a foreign language. *Language and Education, 18*(2), 167-182.

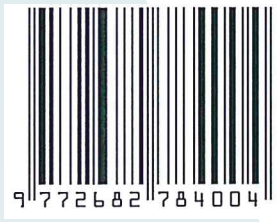
Shen, H.H. (2005). An investigation of Chinese characters learning strategies among non-native speakers of Chinese. *System, 33*(1), 49-68.

Tian, S. (2009). Xiandai jiaoju zai liuxuesheng Hanzi jiaoxue zhong de xin changshi 现代教具在留学生汉字教学中的新尝试. *China Academic Journal*, (2), 273-274.

Ting, H. L., & Ch'ng, L. C., & Norseha Unin. (2020). Mobile application and traditional approach for Chinese stroke order instruction in Foreigh Language Classroom. *Jurnal Intelek, 15*(2), 185-196.

Wang, P., Perfetti, C. A., & Liu, Y. (2003). Alphabetical readers quickly acquire orthographic structure in learning to read Chinese. *Scientific Studies of Reading, 7*(2), 183-208.

Ye, L. (2011). Teaching and learning Chinese as a foreign language in the United States: To delay or not to delay the character introduction. Dissertations, Georgia State University.



UNIVERSITI TEKNOLOGI MARA
Cawangan Kedah
Kampus Sungai Petani

ISSN: : 1985-5079