Learning Chinese Writing: An App Design Concept for Multi-touch Devices

Xi Zong
Learning Chinese Writing: An App Design Concept for Multi-touch Devices

By
Xi Zong

A Thesis submitted in Partial Fulfillment of the Requirements for the Degree of Master of Fine Arts in Visual Communication Design

School of Design
College of Imaging Arts and Sciences

Rochester Institute of Technology
Rochester, NY
May 1st, 2016
Approval of Thesis Committee

Nancy Ciolek
Associate Professor
School of Design

Date

Carol Fillip
Associate Professor
School of Design

Date

Lorrie Frear
Associate Professor
School of Design

Date

Peter Byrne
Administrative Chair
School of Design

Date

Xi Zong
School of Design

Date
Abstract

An app design concept to learn Chinese writing for multi-touch mobile & tablet devices

Mandarin can be divided into spoken Chinese and written Chinese. Many people who are taking Mandarin courses were first attracted to the Chinese language because of the writing system, which is considered one of the most complex in the world.

Chinese writing is considered difficult because of the enormous number of characters one has to learn. Mandarin is difficult in comparison to Spanish, Greek, Russian, Hindi, or any other language that requires at most a few dozen symbols to write in the language.

This Chinese writing learning application concept introduces a new way of learning traditional Chinese by visualizing the structure and the meaning of each character and using an associative mnemonic approach to help people learn Chinese characters.

Overall, the Chinese learning application is a professional and easy-to-use application for non-Chinese readers to obtain a deeper understanding of Mandarin.

Key Words
App design concept, Learning Chinese writing, mobile devices, tablet, user experience, interactive design, user interface

Thesis Website
http://alicezongthesis.weebly.com
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval of Thesis</td>
<td>02</td>
</tr>
<tr>
<td>Abstract</td>
<td>03</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td>05</td>
</tr>
<tr>
<td>Situation Analysis</td>
<td></td>
</tr>
<tr>
<td>Problem Statement</td>
<td></td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td>08</td>
</tr>
<tr>
<td>Research of Target Audience</td>
<td></td>
</tr>
<tr>
<td>Review of Literature</td>
<td></td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>14</td>
</tr>
<tr>
<td>Overall Process</td>
<td></td>
</tr>
<tr>
<td>Interface Design</td>
<td></td>
</tr>
<tr>
<td>Motion Graphics User Guide</td>
<td></td>
</tr>
<tr>
<td>Promotional design</td>
<td></td>
</tr>
<tr>
<td>Thesis Show</td>
<td></td>
</tr>
<tr>
<td><strong>Summary</strong></td>
<td>75</td>
</tr>
<tr>
<td>Evaluation Survey</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td>78</td>
</tr>
<tr>
<td><strong>Appendix</strong></td>
<td>79</td>
</tr>
<tr>
<td>Original Thesis Proposal</td>
<td></td>
</tr>
<tr>
<td>Process Imagery</td>
<td></td>
</tr>
<tr>
<td><strong>Bibliography</strong></td>
<td>105</td>
</tr>
<tr>
<td>Chinese learning websites</td>
<td></td>
</tr>
<tr>
<td>Chinese learning applications</td>
<td></td>
</tr>
<tr>
<td>Inspirations</td>
<td></td>
</tr>
</tbody>
</table>
Introduction

Situation Analysis
Problem Statement
Situation Analysis

Mandarin can be divided into Spoken Chinese and written Chinese. Many people who are taking Mandarin courses were first attracted to Chinese language because of the writing system, which is considered one of the most complex writing systems in the world.

Chinese writing is difficult because of the huge number of characters one has to learn. Each character is made up of numbers of strokes. Mandarin is difficult in comparison to Spanish, Greek, Russian, Hindi, or any other language that requires at most a few dozen symbols to write in the language.

Mandarin Chinese can be written in two different sets of characters, Traditional and Simplified. Traditional characters have been in use for about two thousand years, while simplified characters were developed in Mainland China in the 1950s. This is also why Chinese writing is difficult.

1. What parts of the Chinese writing system make it difficult for learning, and why?

2. How to design a learning guide book based on my design skills for non-Chinese readers to learn and understand Chinese characters better?

3. Instead of traditional learning ways, what learning method can be unique and effective for learning Mandarin?
Problem Statement

For this thesis a teaching guidebook will be developed for non-Chinese readers to obtain a deeper understanding of Mandarin learning. It will also be a good guide book for people who wants to get a better understanding of traditional Chinese art and the art of Chinese characters.

This thesis introduces a new way of learning traditional Chinese by visualizing the structure and the meaning of each characters and using Associative Mnemonic Approach to help people to learn Chinese characters.

The intent is to encourage people to learn and appreciate traditional Chinese writing and communicate with people of Chinese culture background.

This thesis answers the question:
1 How to visualize the structure of a character base on my design skills and how to make it easy and fun for people to learn traditional Chinese characters?
2 Will this study of the history and evolution of the Chinese writing system help people have a better understanding of learning traditional Chinese characters?
Research

Research of Target Audience
Review of Literature
Research of Target Audience

With the Chinese background, I would like to know how non-Chinese readers are learning Mandarin Chinese writing. To get the best outcome for this project, I took a Mandarin Chinese class at Rochester Institute of Technology and learned about the non-Chinese readers learning the process.

A questionnaire was undertaken by interviewing the target audience and collecting online research for getting this information:

Reasons for learning Chinese writing
Their greatest difficulties encountered in the learning process
Their preferred design style (Colors, typefaces, etc)
Their preferred formats for learning methods of writing in Chinese

Target audience conclusion:
The target audience of this project is Non-Chinese readers and people who desire to learn Mandarin Chinese.
Review of Literature

My research focuses on Chinese teaching materials, including books and online resources. I’m going to start with books that cover the history and evolution of Chinese writing, as well as some Chinese dictionaries including the meaning of each character and the stroke steps for creating them. Moreover, I will discover useful interactive design sources as well.

**Chinese Calligraphy: From Pictograph to Ideogram**  
By Edoardo Fazzioli. Abbeville Press (September 1, 2005)

This is a fairly good introduction to the Chinese writing system, providing insight into its origins and current use. This book has inspired me to a deeper study of Chinese radicals. For each of the 214 radicals, the reader is provided a story explaining the history of each radical along with illustrations of the character’s evolution from ancient pictographs to its current form. There is also a step-by-step demonstration on how the strokes are arranged including what stroke to make/use and in which order.

**The Chinese Language: Fact and Fantasy**  
By John DeFrancis. Hawai‘i: University of Hawai, 1984

This book explains in great detail of the origins of the Chinese language system. It is also great fun to read. Based on his profound understanding of the language and its teaching methods, DeFrancis contradicts all misconceptions, myths and fantasies that people may have about the subject. This is one of the works on the subject of the Chinese language that takes readers beyond myths and fantasies into the real world of facts.
The Oxford Picture Dictionary English/Chinese
By Norma Shapiro, Jayme Adelson-Goldstein
Oxford University Press, USA; 2nd edition (June 23, 2008)

The Oxford Picture Dictionary is the ultimate pictorial reference for everyday vocabulary. It is easy to use this picture dictionary organized around themes such as homes, food, feelings, etc. The Chinese character is presented in blue underneath the English word. A complete second-language index is included. The book is well illustrated.

My Little Book of Chinese Words
By Catherine Louis & Shi Bo
North-South Books; Bilingual edition (May 1, 2008)

This is an interesting guide to understanding Chinese characters. The artwork in this book is rich and colorful. The striking lino-types include many of the what appears to be boldly patterned origami paper. On each spread, the Chinese character is juxtaposed with its pictograph form on the left-side page with nicely illustrated woodblock art on the right–side page.

Between Heaven and Earth: A History of Chinese Writing
By Shi Bo. Shambhala Publishing; 1st edition (November 18, 2003)

This book shows the history of Chinese calligraphy. The author gives a fascinating overview of the evolution of seven original Chinese writing styles starting in the seventeenth century BCE. The overview information presented in each chapter is interesting and informative in a general way. The book inspires further investigation and enjoyment of this beautiful language.
The Art of Calligraphy in Modern China

This is an excellent handbook of contemporary Chinese calligraphy for English-speaking readers. The author offers much information about the lives and art of many of the finest modern masters of this ancient art. To the Chinese, the art of calligraphy represents the epitome of culture; indeed, according to the author, a scholar’s “four treasures” are paper, brushes, ink sticks and ink stone.

The Art of Chinese Calligraphy
By Zhou Kexi & Yawtsong Lee (Translator)
Better Link Press; 1st edition (October 10, 2010)

This is a professional book and a practical manual of Chinese calligraphy offering easy access to the historical development of the five kinds of scripts. The most celebrated calligraphers and their best works are included in this guided appreciation for the artistic values of the works. The 192 pieces of Chinese calligraphy featured in this book are the most famous representatives, carefully selected and chronologically arranged from the Zhou (1046 221 BC) and Qin (221 206 BC) dynasties to the modern day. Paging through the extensive collection, this classification will be helpful in developing my thesis content related to Mandarin calligraphy typography.

Bizarre & Ornamental Alphabets
By Carol Belanger Grafton

This exquisite collection of usable, unusual, royalty-free lettering includes 1,685 bizarre and ornamental letters, including 50 full alphabets in a variety of motifs, including 11th-century Anglo-Celtic, military, silhouettes, mathematics and many more.
In this unique guide, renowned calligraphy artist Qui Lei Lei teaches the philosophy of this ancient art and demonstrates how to create the most important symbols of Chinese folklore including Luck, Love, Happiness and Long Life. Chinese calligraphy calls for a meditative, relaxing focus on the task of creating unique, time-honored characters. When readers create these unique symbols and signs, they will not only create beauty and rhythm on the page but also see how to connect with the spirituality that lies beneath much of the practice. This classification will be helpful in developing my thesis related to showing the Chinese characters through an educational perspective.
Process

Overall Process
- Thesis Time Line
- User Flow
- Design Approach
- Design Concepts
- Design Style
- Design Contents

Interface Design
Motion Graphics User Guide
Promotional Design
Thesis Show
Thesis Timeline

![Timeline Diagram]

Figure 1
Timeline
User Flow

The main structure of this application is designed to go through four functions:

Definition, Pronunciation, Stroke Animation and Writing Practice.

Figure 2
Flow chart of this app design concept
Design Approach

1. Research Chinese instruction books.
2. Conversations with professors who teach Chinese.
5. Feedback and data from surveys and questionnaires from people while trying the Chinese learning app concept.
6. Summary of the data and conduct statistical analysis.
7. Recommendations, based on research findings, for creating an app design concept that teaches Chinese writing.
Design Concepts

Here are the overall concepts included in this Chinese writing app design project:

Logo for the mobile application
Characters (Visually + Textually)
Definition and stroke number
Pronunciation and sound mark
Stroke animation and interactive handwriting

Design Style

The overall style of this Chinese writing app design concept will be:

Simple and clear
Approachable color pallette
Visual friendly
Design Contents

Characters
16 characters
Simple nouns
Ordered by frequency of use

日 月 星 辰
水 花 山 木
火 米 川 田
林 光 心 夕

Figure 3
Chinese characters
Design Contents

Characters
Definition
Pronunciation

日 / Rih / 4 Strokes
月 / Yüeh / 4 Strokes
星 / Hsing / 8 Strokes
辰 / Ch’ên / 8 Strokes

水 / Shwei / 4 Strokes
花 / Hua / 7 Strokes
山 / Shan / 3 Strokes
木 / Mu / 4 Strokes

火 / Hwo / 4 Strokes
米 / Mi / 6 Strokes
川 / Ch’wan / 3 Strokes
田 / T’ian / 5 Strokes

林 / Lin / 8 Strokes
光 / Gwang / 6 Strokes
心 / Hsin / 4 Strokes
夕 / Hsi / 3 Strokes

Figure 4
Chinese characters
Interface Design

Initial Interface Design
Final Interface Design
Typography
Colors
Icons
Stroke Animations
Final Interface Design
Responsive Design
Logo
Initial Interface Design

Different versions of interface designs that reflected the initial concepts of the app’s function, user flow, and wireframes.

Different fonts are used in all three initial interface design versions.
Initial Interface Design

Different versions of interface designs that reflected the initial concepts of the app’s function, user flow, and wireframes.

Version 1
With font Song

Figure 5
Initial Interface design version 1
Initial Interface Design

Version 2
With font Kai

Figure 6
Initial Interface design version 2
Initial Interface Design

Version 3
With font Hysong

Figure 7
Initial Interface design version 3
Final Interface Design

After collecting feedback from the evaluation survey and rethinking the usability of the app, changes were made.

Typography
Colors
Icons
Stroke Animation
Logo
Initial Typography  Chinese

The choice of the Chinese font was very important to this thesis project. Research began with research on several elements of the Chinese language such as Chinese calligraphy.

These four different Chinese fonts are quite common in Chinese writing.

日月星辰  Song 宋体
日月星辰  Kai 楷体
日月星辰  Zhuan 篆
日月星辰  Xing-kai 行楷
*Typography*  English

Univers LT Std was chosen for both the main body text and the button text typefaces.

Univers LT Std is a Sans Serif typeface, which is easy to read on screens. It is visual friendly and very legible. It is a new and modern style that matches the design of the app. In addition to the features mentioned above, Univers LT Std matches the Chinese typeface HYSong perfectly as they are both visually friendly and legible.

**Learning Chinese Writing**  
Univers LT Std 65 Bold

**Learning Chinese Writing**  
Univers LT Std 55 Roman

**Learning Chinese Writing**  
Univers LT Std 45 Light
Typography  English

Final Typeface

With the target audiences, the decision was made to use HYSong, a simplified Chinese typeface that is very close to Chinese handwriting. This hand-writing style helps the writing aspect of learning Chinese.

HYSong
Handwriting style
Colors

Main color
The choosing of a color palette was based on the app’s functions and contents. After research, these four bright and fresh colors were used as the four main function colors.

Teal is thought to relieve stress and help heal. It also represents tranquility, good luck, health. Teal has long been a symbol of fertility. It makes people feel rejuvenated, alive and full of life. It brings to mind nature, peace, growth, health. Teal is also very easy on the eyes.

Psychological Association
Balance, Refreshing, symbolizes nature, calming.

Positive
Harmony, balance, refreshment, universal love, rest, restoration, reassurance, environmental awareness, equilibrium, peace.
Colors

Secondary colors

Peach is believed to bring about serenity, relaxation, acceptance and contentment, as well to neutralize disorder and soften frustration. Made up of red and orange, it carries less aggression and fierceness than the color red due to the inclusion of orange.

Orange is associated with joy, warmth, heat, sunshine, enthusiasm, creativity, success, encouragement, change, determination, health, stimulation, happiness, fun, enjoyment, balance, freedom, expression and fascination.

Blue is associated with intuition, imagination, expansiveness and inspiration. Blue has positive effects on the mind and the body. Like the color of the spirit, it invokes rest and can cause the body to produce chemicals that are calming and exude feelings of tranquility.
Icons

Icon Functions
Homepage
Definition
Pronunciation
Writing

icons in black and white

Homepage  Definition  Pronunciation  Writing

icons in color

Homepage  Definition  Pronunciation  Writing

Figure 9
App function icons
Stroke Animations

Order of strokes

Figure 10
Order of strokes
Stroke Animations

Writing grids
Learning Chinese writing usually starts from the writing grids.

Figure 11
Chinese character writing grids
Stroke Animations

Figure 12
Chinese characters in writing grids with stroke orders
Stroke Animations

日
Sun
/ Rih /
4 Strokes

月
Moon
/ yueh /
4 Strokes
Stroke Animations

Figure 14, 15
Chinese characters in writing grids with stroke orders
Stroke Animations

水
Water
/ Shwei /
4 Strokes

花
Flower
/ Hua /
7 Strokes

Figure 16, 17
Chinese characters in writing grids with stroke orders
Stroke Animations

山
Mountain
/ Shan /
3 Strokes

木
Wood
/ Mu /
4 Strokes
Stroke Animations

火
Fire
/ Hwo /
4 Strokes

米
Rice
/ Mi /
6 Strokes

Figure 20, 21
Chinese characters in writing grids with stroke orders
Stroke Animations

Figure 22, 23
Chinese characters in writing grids with stroke orders
Stroke Animations

林
Forest
/ Lin /
8 Strokes

光
Light
/ Gwang /
6 Strokes

Figure 24, 25
Chinese characters in writing grids with stroke orders
Stroke Animations

Chinese characters in writing grids with stroke orders

Figure 26, 27
Heart
/ Hsin / 
4 Strokes

Night
/ Hsi / 
3 Strokes
Final Interface Design

Home Page
Chinese characters
Final Interface Design

Home Page
Chinese characters

Figure 29
Home page – choose one character
Final Interface Design

Chinese Character Page
Final Interface Design

Definition & Pronunciation Page

Figure 31
Character definition & pronunciation page
Final Interface Design

Writing Grid Page
Steps:
1. Watch the stroke animation
2. Practice by writing interactively on the screen.

Figure 32
Character writing grid page
Final Interface Design

Interactive Writing Experience

Learning Chinese Characters, and test yourself with the writing game. Watch the stroke animation first, then practice by interactive writing on the screen.

Stroke Order
Stroke order guide that shows the order of each character

Writing Grid
Writing grid is used for Chinese handwriting practice

Stroke Animation
Stroke animation of each character that showing how the character came about

Icons
4 icons

Figure 33
Instruction of interactive writing experience
Final Interface Design

Stroke animation of all 16 Chinese characters

Figure 34
Stroke animation of 16 characters
Responsive Design

Vertical & Horizontal
Multi-touch mobile & tablet devices

Figure 35
Responsive design on tablet devices
Responsive Design

Vertical & Horizontal
Multi-touch mobile & tablet devices

Figure 36
Responsive design on tablet devices
Responsive Design

**Vertical & Horizontal**
Multi-touch mobile & tablet devices

Figure 37
Responsive design on tablet devices
Responsive Design

**Vertical & Horizontal**
Multi-touch mobile & tablet devices

Figure 38
Responsive design on multi-touch mobile & tablet devices
Logo

Idea
The initial idea involved creating a logo that reflects the function of the app and is systematic with the design style of the interface.

The logo should indicate the meaning of "Chinese writing." Several logo sketches were developed of the pen brush, which represents writing. the Chinese character that means "writing" was chosen as one of the logo options.

Pen brush

Pen brush + "writing" character

Figure 39
Logo design process
Logo

**Final logo design**
After collecting feedback from the evaluation survey and talking with target audiences, this was chosen as the final app logo.

Chinese character + Pen = Learning Chinese writing

![Figure 40](image)
Final logo design
Logo

Final logo on mobile & tablet devices
Motion Graphics
User Guide

Initial Demo Videos
Animation GIFs
Initial Demo Videos

Chinese character "Sun"
Initial Demo Videos

Chinese character "Moon"

Figure 43
Initial demo video clips
Final Demo Videos

The video visualizes the functionality of this Chinese learning app design concept by showing an example of writing a Chinese character. The purpose of the demo video is to catch the target audience's eyes in creative ways and give audiences a better understanding of the app.

Demo video link:
https://vimeo.com/116951274#at=1
Final Demo Videos

Demo video link:
https://vimeo.com/116951274#at=1
Final Demo Videos

16 Chinese Characters
Simple nouns
Ordered by frequency of use

Icons
Home Page
Definition
Pronunciation
Writing

Figure 46
Final demo video clips
Final Demo Videos

Figure 47
Final demo video clips
Animation GIFs

The stroke animation GIF of the Chinese characters
Promotional Design

After the app design concept, several items were created to promote the app from a branding standpoint.

User Guide (App Demo video)
http://www.alicezong.com/#/app-design-learning-chinese-writing/
https://vimeo.com/116951274

The demo video is an excellent way to show the app’s function and animation. The video was created using Adobe After Effects.

Print Design
Poster
Printed writing card

The poster and the printed writing cards could be distributed in promotional campaigns.

The poster is an introduction to the app, intended to draw people’s attention at first glance. People who read the poster and then watch the video will have a better understanding of the app.

People can practice writing Chinese characters on the printed writing cards. There are also pronunciation marks on the bottom of the writing cards, so people can learn the pronunciation at the same time. The app’s name is on the back of the writing cards.
Promotional Design

Print Design
Writing Cards (horizontal)

Figure 49
Character writing cards – horizontal
Promotional Design

Print Design
Writing Cards (vertical)

Figure 50
Character writing cards – vertical

Moon / Yüeh /
Promotional Design

Print Design
Writing Cards (vertical)

Figure 51
Character writing cards – vertical
Promotional Design

Print Design
Writing Cards (vertical)

Figure 52
Character writing cards – vertical
Display Board

App Design
Learning Chinese Writing

This is a mobile App to help non-Chinese speakers and beginners read and write Chinese characters. Simple to operate.

- Definition and stroke number
- Pronunciation and sound mark
- Stroke animation and interactive handwriting

- Logo of the App
- 16 characters
- Simple nouns
- Ordered by frequency of use
- Font
  - HYSong
  - Handwriting style
- Watch the stroke animation
  - Practice by writing interactively on the screen

- Stroke animation
- Stroke Orders

Figure 53
Display board
Promotional Design

Print Design: Writing Cards
The purpose is to provide people with familiarity of the symbols for people to easily remember the characters.
Thesis Show
Thesis Show
Summary

Evaluation Survey
Evaluation Survey

After finishing the prototype and the motion graphics user guide, a usability test was done with a small group of target audience members of 16 beginners, and more refinements were made based on the usability test results.

Participants
Target audience: Non-Chinese readers
Total Started Survey: 20
Total Finished Survey: 16 (80%)

Process
1. Introduced the thesis project briefly.
2. Explained the purpose, task, and process of the testing.
3. Showed the motion graphics user guide video.
4. Handed out the evaluation surveys.
5. Collected the feedbacks.

Testing participants were informed that the application they were testing was a prototype not a fully functional live product.
Evaluation Survey

1. Do you like the overall look and feel of this application?
   Yes: 85.3%   No: 14.7%

2. Do you find this application easy to understand with learning Chinese writing?
   Yes: 79.5%   No: 20.5%

3. Do the icons clearly show their meanings clearly?
   Yes: 74.8%   No: 25.2%

4. Do you like the typeface?
   Yes: 82.7%   No: 17.3%

5. Do you like the color theme?
   Yes: 91.6%   No: 8.4%

6. Are you willing to recommend this application to others?
   Yes: 86.2%   No: 3.5%

Testing Summary

The test results were positive. 86% of the participants liked the overall look and feel of this application; 80% found the application easy to understand, 83% liked the typeface, 92% liked the color theme; 87% expressed their willingness to recommend the app to others.
Conclusion

This Chinese writing app concept is designed to encourage people to learn and appreciate traditional Chinese writing and to be better able to communicate with people of Chinese cultural background. The significance of this thesis project is to fill the gap in current products and solve problems of both education and visual communication skills.

The development of this Chinese writing learning application concept was a great learning experience for me. The app concept unites fun educational strategies with visual communication skills such as icon design, typography, color coding and interface design, all of which were used to improve the user experience.

Future Considerations
This application concept has a lot of potential to be developed into a real mobile app. For now, there are only 16 Chinese characters as prototypes. A more developed database of the characters could be built to give additional learning experiences. Looking forward to having the application concept developed into a real mobile app.

Thesis Website
http://www.alicezong.com/#/app-design-learning-chinese-writing/

Demo Video
https://vimeo.com/116951274
Appendix

Original Thesis Proposal
Process Imagery
Bibliography
Original Thesis Proposal

Learning Traditional Chinese Characters
A Teaching Guidebook for Learning Mandarin Chinese Writing

Xi Zong
Thesis Proposal
Rochester Institute of Technology
College of Imaging Arts and Sciences
School of Design
Visual Communication Design
October 21, 2013
Original Thesis Proposal

Thesis Committee Approval

Chief Advisor
Nancy Ciolek, Associate Professor
School of Design, Graphic Design

______________________________  _______________________
Chief Advisor                    Date

Associate Advisor
Carol Fillip, Assistant Professor
School of Design, Graphic Design

______________________________  _______________________
Associate Advisor                Date

Associate Advisor
Lorrie Fears, Associate Professor
School of Design, Graphic Design

______________________________  _______________________
Associate Advisor                Date
Original Thesis Proposal

Situation Analysis

Mandarin can be divided into Spoken Chinese and written Chinese. Many people who are taking Mandarin courses were first attracted to Chinese language because of the writing system, which is considered one of the most complex writing systems in the world.

Heard that Chinese writing is difficult because of the huge number of characters one has to learn. Each character is made up of numbers of strokes. Mandarin is difficult in comparison to Spanish, Greek, Russian, Hindi, or any other language that requires at most a few dozen symbols to write in the language.

Mandarin Chinese can be written in two different sets of characters, Traditional and Simplified. Traditional characters have been in use for about two thousand years, while simplified characters were developed in Mainland China in the 1950s. This is also why Chinese writing is difficult.

- What parts of the Chinese writing system make it difficult for learning, and why?

- How to design a learning guide book based on my design skills for non-Chinese readers to learn and understand Chinese characters better?

- Instead of traditional learning ways, what learning method can be unique and effective for learning Mandarin?
Problem Statements

For my thesis, I am going to develop a teaching guidebook for non-Chinese readers to obtain a deeper understanding of Mandarin learning. It will also be a good guide book for people who wants to get a better understanding of traditional Chinese art and the art of Chinese characters.

This thesis introduces a new way of learning traditional Chinese by visualizing the structure and the meaning of each characters and using Associative Mnemonic Approach to help people to learn Chinese characters.

The intent is to encourage people to learn and appreciate traditional Chinese writing and communicate with people of Chinese culture background.

This thesis answers the question:
• How to visualize the structure of a character base on my design skills and how to make it easy and fun for people to learn traditional Chinese characters?

• Will this study of the history and evolution of the Chinese writing system help people have a better understanding of learning traditional Chinese characters?
Original Thesis Proposal

Survey of Literature

**Chinese Calligraphy: From Pictograph to Ideogram**
By Edoardo Fazzioli. Abbeville Press (September 1, 2005)

This is a fairly good introduction to the Chinese writing system providing insight into its origins and current use. This book has inspired me to a deeper study of Chinese radicals. For each of the 214 radicals, the reader will get a nice story explaining the history of the radical along with illustrations of the character’s evolution from ancient pictographs to its current form. There is also a step-by-step demonstration on how the strokes are arranged including what order and what stroke.

**The Chinese Language: Fact and Fantasy**
By John DeFrancis. Hawai‘i: University of Hawai‘i, 1984

This book explains in great detail what the Chinese language and its ancient writing system is all about. It is also great fun to read. Based on his profound understanding of the language and its teaching methods, Mr. DeFrancis, in this book, contradicts all misconceptions, myths and fantasies that people may have about the subject. And there are lots of them. This is one of the works on the subject of the Chinese language that will really take you beyond myths and fantasies into the real world of facts.
Original Thesis Proposal

The Oxford Picture Dictionary English/Chinese
By Norma Shapiro, Jayme Adelson-Goldstein
Oxford University Press, USA; 2 edition (June 23, 2008)

The “Oxford Picture Dictionary is the ultimate pictorial reference for everyday vocabulary. This is an easy to use picture dictionary organized around themes, such as homes, food, feelings, etc. The second language is presented in blue underneath the English word. A complete second-language index is included. The book is well illustrated. This book is a useful supplement.

My Little Book of Chinese Words
By Catherine Louise & Shi Bo
North-South Books; Bilingual edition (May 1, 2008)

This is an attractive guide to understanding Chinese characters. The artwork in this book is rich and colorful. The striking lino-types at times include in their design or as their frame what appears to be boldly patterned origami paper. On each spread, the Chinese character is juxtaposed with its former pictograph form on the left-side page with nicely illustrated wood block art on the right-side page.

Between Heaven and Earth: A History of Chinese Writing
By Shi Bo. Shambhala publishing; 1 edition (November 18, 2003)

This book shows the history of the Chinese calligraphy. The author gives a fascinating overview of the evolution of seven seminal Chinese writing styles starting in the seventeenth century BCE. The overview information presented in each chapter is interesting and informative in a general way. The book inspires further investigation and enjoyment of this wonderful language.

The Art of Calligraphy in Modern China

This is an excellent handbook of contemporary Chinese calligraphy for English-speaking readers. The author loves calligraphy and offers much information about the lives and art of many of the finest modern masters of this ancient art. To the Chinese, the art of calligraphy represents the epitome of culture—indeed, a scholar’s “four treasures” are paper, brushes, inksticks, and ink stone.
Original Thesis Proposal

The Art of Chinese Calligraphy
By Zhou Ke & Yiu-yu Lee (Translator)
Better Link Press; First edition (October 10, 2010)

This is a professional book and a practical manual of Chinese calligraphy, which offers an easy access to the historical development of the five kinds of scripts. The most celebrated calligraphers and their best works, A guided appreciation for the artistic values of the works. The 192 pieces of Chinese calligraphy featured in this book are the most famous representatives carefully selected and chronologically arranged from the Zhou (1046-221 BC) and Qin (221-206 BC) dynasties to the modern time. Paging through the extensive collection. This classification will be helpful in developing my thesis content of Mandarin calligraphy typography.

The Simple Art of Chinese Calligraphy
Create Your Own Chinese Characters and Symbols for Good Fortune and Prosperity
By Qu Lei Lei
Watson-Guptill Publications; 1 edition (October 1, 2002)

In this unique guide, renowned calligraphy artist Qu Lei Lei (the author) teaches the philosophy of this ancient art and demonstrates how to create the most important symbols of Chinese folklore—Luck, Love, Happiness, and Long Life. Chinese calligraphy calls for a meditative, relaxing focus on the task of creating unique, time-honored characters. When readers create these unique symbols and signs, they will not only create beauty and rhythm on the page but also see how to connect with the spirituality that lies beneath much of the practice. This classification will be helpful in developing my thesis content of showing the Chinese characters in an education perspective.

Bizarre & Ornamental Alphabets
By Carol Belanger Grafton
Dover Publications; First edition (April 1, 1981)

This exquisite collection of usable, unusual, royalty-free lettering includes 1,686 bizarre and ornamental letters, including 50 full alphabets in a variety of motifs, including 11th century Anglo-Celtic, military, silhouettes, mathematics, and many more.
Original Thesis Proposal

Design Ideation

“Twelve Months Thirty-One Days”
An experimental attempt to create a Chinese character set from scratch. Specially tailored for recording dates.

Book Cover “Mountains Beyond the Door”
Designed by Wengchihong

ShaoLan Hsueh has developed a learning system that aims to “penetrate the Great Wall of Chinese language.”
Original Thesis Proposal

Design Ideation

Hieroglyphics

2008 Olympic pictogram

Hieroglyphics
Original Thesis Proposal

Design Ideation
Typography
Original Thesis Proposal

Design Ideation

apple grapes octopus lemon cow
chicken eel orange strawberry flatfish
bamboo shrimp sausage pork milk
vegetable cherry crab mushroom clam

“Fun characters”
Hiromura Design Office
Original Thesis Proposal

Design Ideation

The leading toy company BANDAI Animal figures that transform into Chinese characters.
Original Thesis Proposal

Design Ideation

Book Formats
Original Thesis Proposal

Methodological Design

Target audiences
- Non-Chinese readers
- People who desire to learn Mandarin Chinese.
- People who wants to gain a better understanding of the traditional Chinese art and the art of Chinese characters.

Anticipated Software
- Adobe InDesign
- Adobe Illustrator
- Adobe Photoshop
- Corel Painter

Approach
1. Research the overall history and evolution of traditional Chinese characters. Research on the foundation of the character development.
2. Research and compare several basic traditional Chinese character and find the similarity between them. Try to find the story behind each characters.
3. Look at case studies of books about Chinese Learning.
4. Collect feedback and data from surveys and questionnaires from people while reading.
5. Summarize the data and conduct statistical analyses.
6. Provide recommendations, based on my research findings, for making my own guidebook that teaching Chinese writing.
Original Thesis Proposal

Methodological Design

Contents

Section 1: Overall history and evolution of written Chinese. Research on the foundation of the character development.

Steps:
1. The history of written Chinese.
2. The evolution of Traditional Chinese characters.
3. The introduction of stroke system.

Section 2: Visually and textually describe the meaning of several basic traditional Chinese characters, the pronunciations and to show the strokes. I will use images as illustration to show the meaning, and the story behind each character, how it evolved, and why it makes sense.

Step 1: Choose the characters that I will put in the teaching guide.
- Nouns that relate to Chinese Traditional culture
- Nouns that have special meaning and have a story.

Categories:
Nature: 日月星辰 sun moon star time
          風霜雨雪 wind frost rain snow
          春夏秋冬 spring summer autumn winter
Painting: 梅蘭竹菊 plum orchid bamboo Chrysanthemum
          花鳥魚蟲 flower bird fish insect
Literacy: 筆墨紙硯 brush ink paper ink stone
          琴棋書畫 zither chess book paint
Original Thesis Proposal

Methodological Design

Contents

Step 2:
- Visualize the characters
  Use images as illustration to demonstrate the characters.
- Meaning of each characters & related examples
  Poems that could show how they were used in traditional Chinese literatures.
- Stroke steps

Visual Style:
- Fonts & open types
  Serif & Sans Serif
- Color Palette
- Chinese elements: Calligraphy
  Painting
  Paper-cut

My father’s Calligraphy
# Original Thesis Proposal

## Methodological Design

### Contents

<table>
<thead>
<tr>
<th>Step 3</th>
<th>Description</th>
</tr>
</thead>
</table>
|        | Chinese character copybooks  
|        | Sound mark |

---

**Fish**

**Pronunciation:** /Eu/

**Example:** 我爱吃鱼 | I love fish

My sketch of  
Chinese character copybook
diagram.
Original Thesis Proposal

Implementation

- Design Component
  - Typographic Design
  - Print Design
  - Information Graphic
  - Book Design
  - Possible App

- Content
  - Elements of traditional Chinese culture
  - Illustration
Original Thesis Proposal

Dissemination

- Thesis show
- Imagine RIT
- Printed copies
- Electronic copies
- Thesis website: http://alicezongthesis.weebly.com
- Competitions

reddot design award
design concept 2014

CHINESE ELEMENT
中华元素

中国
Evaluation Plan

Present the teaching guidebook to children and adults who do not have any background in Chinese writing. I will let them read and try the teaching guide. I will make my teaching guide meaningful and playful at the same time so that it will be engaging for children.

- Face-to-Face Observation
- Online Surveys
- Chinese character copybooks
- User experience testing
Original Thesis Proposal

Bibliography


Original Thesis Proposal

Thesis Timeline

Thesis Timeline
by X.Zong

Learning Traditional Chinese Characters
A Fun Teaching Guidebook to Learning Mandarin Chinese Writing

MONTHS

DATES

Proposal accepted
How chart finished
Mini site started
1st committee meeting
Content Trailed
Storyboard done
2nd committee meeting
1st prototype done
3rd committee meeting
Pass thesis defense
Data prototype done
4th committee meeting
Complete first project
Thesis report online
Last committee meeting
Thesis show
Graduation

End of Fall Semester
Beginning of Spring Semester
Thesis Defense
Graduation

Graduation - May 24, 2013
Original Thesis Proposal

Next Steps

My next step will be ideation of different visual styles and find out which is most appropriate. Here are some visual styles that I have tried before.

- Chinese elements: Calligraphy
  Painting
  Paper-cut
- Modern style
Process Imagery

This section includes process images taken throughout the project.
Process Imagery

This section includes process images taken throughout the project. Meeting with my thesis committee.
Bibliography

Chinese learning websites
Chinese learning applications
Inspirations
Bibliography

Chinese learning websites

**Learning Chinese**
http://www.china.org.cn/learning_chinese/

**Chinese Lessons - Learn Chinese Online**
http://www.learnchineseez.com/lessons/mandarin/

**CCTV Learn Chinese - Free Mandarin Video Lessons**
http://english.cntv.cn/learnchinese/

**Learn How to Read & Write Chinese Characters**
http://www.learnchineseez.com/characters/learn-to-write-chinese/

**Learn Chinese Characters - Chinese-Tools.com**
http://www.chinese-tools.com/learn/characters

**Monki Chinese Class | kids app for learning Chinese**
http://topbestappsforkids.com/monki-chinese-class-app-review-12241/

**Skritter**
https://html5.skritter.com/home

**ChineseSkill - Learn Chinese/Mandarin**
http://www.chinese-skill.com/cs.html
Bibliography

Chinese learning applications

**Pleco Chinese Dictionary**
Pleco is one of the best Chinese dictionaries currently on the market and, amazingly, it’s also free. Through the app, language learners can look up words, read documents, practice with flashcards, and even get help with writing Chinese characters.

**Radio Chinese Plus+**
Expose yourself to Chinese language news programs, music, and more through this great app that connects you via iPad, iPhone, Blackberry, or Android to some of the top U.S.-based Mandarin radio stations.

**WCC Chinese Flashcards with Audio**
Practice learning Chinese bigrams (two-character combination words) with flashcards and audio support that will boost both your spoken and written Chinese. Currently the app offers access to more than 20,587 bigrams, with audio that showcases a variety of different pronunciations.

**Chinese Writer**
Learning to read and write Chinese characters can be challenging, but apps like this one can help. Chinese Writer uses a game-like format to challenge users to quickly draw characters. At present, the app offers access to more than 5,300 simplified and traditional characters, each with English explanations and proper pronunciation.

**Chinese Vocab Free**
For beginning language learners, mastering basic vocabulary is essential. This app is an excellent way to do just that, presenting thousands of words that users have to correctly translate into one language or the other.
Shi Zi
Shi Zi is an excellent tool to help students of Mandarin learn to read Chinese characters. To aid in memorization, the app displays the characters next to shapes of the physical objects they represent, organizes them into related groups, and tests users time and time again to reinforce learning.

Play & Learn Chinese
Want to make learning Chinese a little more fun? This app can help, turning language lessons into fun games that will help you build vocabulary and memorize basic phrases.

BoPoMo Help
Using Pinyin, this app will help learners more easily understand the meaning of Chinese words and characters as well offering the correct pronunciation for thousands of tricky characters.

Dictionary and Flashcards
This dictionary and flashcards from Trainchinese can be an invaluable resource for language learning, as they make it possible to easily bring vocabulary study with you anywhere you go.

AccelaStudy
This award-winning software is a must-have for language learners attempting to master Mandarin. It offers over 2,100 vocab words, a basic dictionary, flashcards, study planning, several different practice modes, and stats on your progress.

Hanzi Warrior
This game allows you to save the world (virtually, anyway) while you practice Chinese vocabulary, pronunciation, and reading.
Bibliography

Inspirations

TED Talk speech
ShaoLan: Learn to read Chinese ... with ease!
https://www.youtube.com/watch?v=troxvPRmZm8

Creation Story behind Chinese characters
https://www.youtube.com/watch?v=PM6Nmbypvl8

Introduction to Chinese Characters
(Very good video on Chinese characters)
https://www.youtube.com/watch?v=1cyNIVVkYPo

Fun and Easy Chinese Characters
https://www.youtube.com/watch?v=drbNv3-x5rc

Strokes Used In Chinese Characters - Mandarin Language
http://mandarin.about.com/od/characters/a/The-Importance-Of-Strokes-In-Chinese-Characters.htm

Youtube Chanel: Radical Mandarin

Chinese Radicals - Nature
https://www.youtube.com/watch?v=MrVC7EzrOX0

Basic Chinese Character Parts - Movement Radicals
https://www.youtube.com/watch?v=KUcSdPMAM9A

Basic Chinese Character Components - People
https://www.youtube.com/watch?v=rFdjoEtg-8