Usability Testing: Chinese Language Learning

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Introduction

With the booming economic expansion, and the business as well as cultural interchange in Mainland China, the need for learning Mandarin Chinese as a second/foreign language (CSL/CFL) have been gradually increasing. People from different areas of the world have begun to study Chinese for specific purpose with regard to its four skills (i.e. speaking, listening reading and writing). This can be observed through the establishment of the Confucius institutes\(^1\) around the world and the foreign language policy of the US College Board that announced the implementation of Chinese Advanced Placement (AP) Program in 2006 for promoting the understanding of Chinese language and culture (College Entrance Examination Board, 2003). In addition, the Hanyu Shuiping Kaoshi\(^2\) in China and Huayu Proficiency Test\(^3\) in Taiwan have grounded Chinese learning in a measurable assessment system; passing these language tests serves as another important learning goal and motivation for CSL learners. In accordance to the exponential growth of the test takers, China's Ministry of Education estimates the population of worldwide Chinese learners is to be over 30 million people (Wikipedia, 2007). The learning needs have also spurred the strong popularity for teaching Chinese as a second/foreign certificate programs in China and Taiwan in recent years.

Due to the market demand of teaching and learning of CSL/CFL, many web-based Mandarin Chinese learning sites (either in simplified or traditional Chinese characters system) are constructed to assist not only teachers with the in-class activities but also learners with their self study at home. The online Web sites are particularly of great help for teachers and learners who are not living in Chinese-speaking countries for searching adequate language materials, practicing and networking with specific tasks in the four language skills. Many Chinese language researchers (Chen & Liu, 2006; 姚蘭 & 周靜琬, 2005; 許獻卿, 張秀美, & 李麗霞, 2005; 陳氏金鸞, 曾金金, & 廖埻棓, 2005) have indicated the advantages of the online language learning web sites in terms of teachers’ benefit in instruction as well as the facilitation of learners’ language acquisition and development. Nonetheless, little empirical research has been conducted about the CFL computer-assisted web design and its relationship with respect to users’ navigation experience. Thus, this paper aims to shed light on this design issue from the users’ perspective by evaluating six CFL Web sites and reflecting some essential issues in “the 3 Is” (i.e., interface, information, and interaction design). By investigating the viewpoints of CFL teachers and learners, we expect to gain insights from their usability experience while exploring

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\(^3\) Huayu Proficiency Test: [http://cpt.mtc.ntnu.edu.tw/](http://cpt.mtc.ntnu.edu.tw/)
Methodology

In order to carry out the usability test efficiently, this study had two major phases: 1) browsing the possible CFL websites and, 2) testing the finalized six Web sites on CFL teachers and learners. At the beginning a multitude of CFL web sites were investigated from the resource area 4 of the graduate institute of Teaching Chinese as a Second Language at National Taiwan Normal University and Google Search Engine. Meanwhile several research invitations were sent to recruit participants for the CFL usability study by convenience sampling. The candidate Web sites were filtered and narrowed down, considering participants’ background, language proficiency, and the Chinese language system they were familiar with.

With respect to the four skills, we eliminated the reading comprehension and essay writing tasks for learners due to the time constraint and difficulties of observing learners’ mental processes and the participants’ limited ability in writing Chinese strokes and characters. Taking the accessibility and convenience into account, we also excluded Web sites that require a user account, membership fee, and dead hyperlinks without reaction. After the discussion and careful selection by the two researchers, six more comprehensive Web sites were selected for this CSL/CFL usability study In general, these six web sites all have clear teaching goals and target learners. The URLs of the six sites are listed as follows:

<table>
<thead>
<tr>
<th>Names of Web Sites</th>
<th>URLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. BBC Real Chinese</td>
<td><a href="http://www.bbc.co.uk/languages/chinese/real_chinese/">http://www.bbc.co.uk/languages/chinese/real_chinese/</a></td>
</tr>
<tr>
<td>5. Chinese Multimedia</td>
<td><a href="http://www.csulb.edu/~txie/online.htm">http://www.csulb.edu/~txie/online.htm</a> (In the section of conversation)</td>
</tr>
<tr>
<td>6. Video clips of Survival Chinese</td>
<td><a href="http://www2.kenyon.edu/People/bai/VCSC.htm">http://www2.kenyon.edu/People/bai/VCSC.htm</a></td>
</tr>
</tbody>
</table>

Participants

The participants consisted of two volunteer groups: language teachers and learners who study Chinese as a second/foreign language. 6 participants were recruited in total. Their information is briefly described in Appendix A and B.

Web Site Profile

Site # 1 The Global Chinese Language and Culture Center

The first online website was funded by Taiwanese government in 1999 and has been administered by Oversea Chinese Affairs Commission since then. In order to offer a useful learning system, this Web site was reconstructed in 2003 with the SCORM standard for integrating the web-learning materials and objects. As indicated by the site map, this whole project aims to introduce the Chinese language (e.g. Mandarin, Taiwanese, Hakka) and Chinese/Taiwanese cultures to the overseas Chinese teachers and learners (native/non-native) via a multitude of web-based resources such as language learning, e-school, culture experience, Taiwan panorama, and discussion board. This Web site mainly adopts the traditional Chinese writing system and the Chinese convention and usage of Taiwan.
Site # 2: The BBC Real Chinese

The second site provides animated introduction to Mandarin Chinese in 10 short sections. The topics include self and family introduction, ordering drinks and meals, shopping, booking a hotel and getting around by public transportation. This site has both English and Chinese language and Romanized phonetic support (pinyin) plus lively multimedia (e.g., movie clips, audio sound) for users. As the user click on the topics, the slideshow and the sound of the words and phrases become available. A short video clip adopted from the TV series is displayed as an overall review for approximately for one minute. Other helpful functions are embedded on the side, for instance, useful phrases with tips on pronunciation and grammar, cultural notes and a short challenge to check what one has learnt.
Site # 3: CRIEnglish.com-Learn Chinese

The third site zeros in on the various domains of learning Mandarin Chinese. There are 17 different categories that allow users to pick the areas they feel interested in. The language learning aspect includes Chinese characters, Chinese radio, learn Chinese now, say it, idioms and stories, poems, and HSK. The cultural learning aspects consist of bulletin hits, blockbuster, jokes, and cultural trivia. Information about the educational institutes in China is also offered for those who are searching for short-term or long-term study programs. This site has very rich authentic materials and learning topics for varied types of learners. In essence, this is a good resource to acquire simplified Chinese characters, idioms and phrase used in Mainland China, and Taiwanese pop culture as well.
Site # 4: Speak Chinese Online Confucius Institute

The fourth website is video- and audio-based learning platform. Users can choose the sections they would like to explore, such as Chinese lessons, Chinese idioms, Ancient Chinese poetry, popular words, strokes of Chinese characters, popular words, how to read Chinese menus, strokes of Chinese characters, Olympic Chinese phrase, and HSK. This website employs the phonetic pinyin system, equivalent English translation, and video clips to support the learning materials in each lesson. To use this website, simplified Chinese supported software must be downloaded at the beginning pop-up window.
Site # 5: Chinese Multimedia

This online Chinese learning course is designed by the Centre for Teaching Chinese as a Foreign Language and the Academic Computing Development Team at University of Oxford. The Chinese course package consists of 22 lessons in simplified characters at the elementary-intermediate level and is appropriate for students who have already studied Chinese for at least 3 months. The course can not only be used for self-study but also for supplementing in-class Chinese teaching activities. This Web site adopts varied types of multimedia materials such as video and audio files, interactive character writing practice, interactive grammar exercise, multiple choice vocabulary quizzes, and indexes for grammar and vocabulary. Users need to install multimedia plug-in in order to utilize the multimedia features provided.
Site # 6: Video Clips of Survival Chinese

The sixth website aims for low-intermediate-level students who plan to enhance their listening skills as well as abilities to function in target language domains in Mainland China. The materials include various types of listening comprehension tasks in video clips, online interactive testing, and Chinese scripts with highlighted explanation of vocabulary. According to the Web site, the materials can be either used as supplementary materials with textbooks or independent online practice for developing communicative competence and skills.
Testing Facility

The usability study was mainly completed on the researcher’s laptop, IBM R60 on the 5th floor of PCL library. Stable and high-speed Internet and plug-ins (i.e. Flash Player, Windows Media Player, and Shockwave) required for the sites were available during the test.

Data Analysis and Findings

Participants’ responses to the designed tasks were basically analyzed in SPSS software. First of all, the two researchers separated the data set from teachers and learners, coded all the background information into the spreadsheets, and then applied the simple descriptive statistics to examine the correlation of different items. In addition, the feedback for each task, observation journals and recoding clips were reviewed with respect user’s relevant reaction to each task and regarding the interface, information and interaction design of the websites they visited. Furthermore, similar usability problems among Web sites were categorized and reported selectively according to their importance.

General Site Design Issues

Given the fact that this usability test was administered to two different populations (i.e., learners and teachers), the following discussion is based on participants’ reaction on each website.

Specific Task #1: The initial 3-minute navigation of the site

Learners

The Global Chinese Language and Culture Center received positive feedback from the intermediate Chinese learner, given its good organization and structure as well as the provision of the English version as a supportive tool. The learner was also very impressed by the breadth and depth of the information she could find and was satisfied with the traditional characters she is familiar with.

BBC Real Chinese has a very clear and neat interface, and two users both expressed their good impression of it. Nonetheless, one beginner learner felt a little confused about whether to
hit or double click the links in order to move to the section he would like to explore. He thought explicit navigation instructions should be provided in order to help the first time users to access the Web site without trouble.

CRIEnglish-Learn Chinese left the user with a good impression to the user because of the variety of the information. However, as the started to read the different sections, he felt overwhelmed by the flood of information given his basic proficiency level in Chinese. He expressed that sometimes he did not know where and how to start.

The user’s first impression of Speak Chinese Online was that the website looked complete. During the navigation he mentioned that was not sure if the Web site was functional owing to the slow speed of pages changing as well as the lack of “go back” bottoms. Often he was not sure where he was and felt the Web site was not positive in guiding the users.

Chinese Multimedia looked very good, concise, and was easy to navigate due to the tabs hanging at the top of the homepage. The beginner user was attracted by the prescriptive grammar rules provided in the grammar index. However, he indicated that he was a little lost in the vocabulary index in that the navigation tabs disappeared, thereby causing some problems for users to get back to the home page due to the inconsistent layout.

**Teachers**

This teacher was excited about the materials available at the Global Chinese Language and Culture Center because this site substantially integrates many valuable resources about Chinese/Taiwanese culture with language learning. He reported that the opening animation and sound was attractive and the online Chinese games high evaluation was of great help to motivate learners compared with the traditional in-class teaching and learning. Most importantly, the audio files in the Chinese lessons allow learners to practice repeated at home, but may need instructions for learners about the level of the materials and how to use them. Otherwise, learners may feel frustrated even so a lot of handy information is there. Overall, at first glance, the user was quite satisfied with the functions and design of on this site.

The teacher felt the site CRIEnglish-Learn Chinese was very content rich, but since it was in simplified characters, it is not easy for her to comprehend and react. The reflection of hitting
area on the website was inadequate, and sometimes she had no idea how to go back to the original website to grasp the major learning goals.

On the site, Chinese Multimedia, the teacher perceived the systematic organization of the site in terms of listening, speaking, reading, and writing. The characters were very clear to identify with sounds and fast speed.

The user revealed that this site, Video Clips of Survival Chinese, looked aesthetically unappealing with the Temple of Heaven as the background wallpaper. He understood the importance and meaning of this architecture in the old days, but was unable to figure out its connection with the lessons provided. The video clips and texts were beneficial to learners in that it provided a context and learners could acquire the highlighted vocabulary with the visual aids. Also the learners talked about use the online assessment to check if they can answer the multiple choices correctly.

Specific Task # 2: Learn Chinese Phrase

In this section, we first listed the data collected from the tests and selectively discuss the results with screen shots.

**Learners**

The four phrases that learners found for ordering food are listed in order based on each Web site.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Phrases found</th>
<th>Task completion</th>
</tr>
</thead>
</table>
| The Global Chinese Language and Culture Center | ➢ zòng zi  
➢ sū zhōu  
➢ tāng yuán  
➢ yuán xiāo | Just some related words were found. The user didn’t find any phrase. |
| BBC Real Chinese                          | ➢ The bill, please  
➢ wǒ xī huǎn chī  
➢ mǐ fēn | 3 min |
<table>
<thead>
<tr>
<th><strong>Site: The Global Chinese Language and Culture Center</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>In this task, our participants proposed very similar concerns about the phrases they needed to look for when exploring the site. They thought some sentence patterns were needed in order to utilize the phrases because the food names alone did not literally help them function well enough in ordering foods. The results of this task varied dichotomously: learners either found the phrases within short time (no more than 5 min) or could not locate the proper words for completed the task successfully.</td>
</tr>
<tr>
<td>Three users reflected that they were not able to perform the specific tasks #2. The problems center on either the information or the interface design. For example, the phrase “sū zhōu” found in the Global Chinese Language and Culture Center site was off the topic and incomplete, given the original term is sū zhōu yuè bīng (Figure 1). It is likely that the learner probably dissected the term in the wrong chunking and wrote down only half of it, thereby misusing the name of a place as a food. This learner pointed out the site she explored about the</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CRIEnglish-Learn Chinese</strong></th>
<th>qié zhī jī pái</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have a menu in English?</td>
<td>5 min</td>
</tr>
<tr>
<td>I am ready to order.</td>
<td></td>
</tr>
<tr>
<td>Can I have one more chopstick??</td>
<td></td>
</tr>
<tr>
<td>Check, please</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Speak Chinese Online</strong></th>
<th>User 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>yú xiāng ròu sī</td>
<td>5 min</td>
</tr>
<tr>
<td>Shí jīn ǒu piàn</td>
<td></td>
</tr>
<tr>
<td>hóng shāo lǐ zi jī</td>
<td></td>
</tr>
<tr>
<td>qié zhī jī pái</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>User 2</strong></th>
<th>The user couldn’t find items for the task.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Chinese Multimedia</strong></th>
<th>The user couldn’t find relevant Chinese phrase for ordering food from the site</th>
</tr>
</thead>
</table>
Chinese festival food has some vocabulary words; nevertheless, without pictures or explanation aligned with some food terms, she could not fully understand the new words. Additionally the site did not offer a specific sentence pattern that was helpful in structuring the food vocabulary, which is the main reason that she put the comment that she was not able to complete the task.

![Chinese festival food words](image)

Figure 1

**Site: Speak Chinese Online**

One user talked about his helplessness in looking for the lessons he wanted as there was no search box or titles for each lesson in the drop-down menu. The learner particularly told the researcher that it was hard for a beginner to trace specific Chinese terms without these features. Eventually he gave up the task and decided to move to the next one.

**Site: Chinese Multimedia**

This site did not have any lesson relevant about ordering food, and it is understandable that learner commented on the inability to complete the task after watching several video clips and texts in the lessons.
The four phrases that teachers may find useful for their students to learn about watching a movie are listed in order based on each evaluated Web site.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Phrases found</th>
<th>Task completion</th>
</tr>
</thead>
</table>
| Global Chinese Language and Culture Center | 1. 妳明天有空嗎?  
    2. 這電影票房很好?  
    3. 電影幾點開始?  
    4. 你覺得這電影如何? | 1 min |
| CRIEnglish.com—Learn Chinese               | 1. 我后天看电影  
    2. 电影几点开始  
    3. 你请客吗  
    4. 十点差十分 | 2 min |
| Chinese Multimedia                         | 1. 电影开始了吗?  
    2. 双号  
    3. 你买的票是几号?  
    4. 我的票是6排15号 | 2 min |
| Video clips of Survival Chinese            | Failed to find any relevant phrases about watching a movie |                 |

Site: CRIEnglish.com—Learn Chinese

The teacher pointed out the teaching objectives were not clear on this site. The conversation was not practical enough. She was bothered by the cluttered mixture of pinyin and English support (Figure 2), and there was no picture or sound to reinforce the task.
Figure 2

Site: Chinese Multimedia

Compared to CRI English.com, Chinese Multimedia has a more organized layout with tabs above to label each link to specific learning theme. Thus, it is much easier to navigate and locate the desired content. However, it offers three sections of the transcript separately for comparison. One is in Chinese, one is in pinyin and the other is in English. One of the users reflected that though each section looked organized, too much scrolling made it inconvenient for learners to identify both meaning and its pronunciation of a certain word/phrase at the same time (Figure 3).
She also indicated the use of chart (Figure 4) to teach each word/phrase was an effective way to organize the content.

<table>
<thead>
<tr>
<th>Chinese</th>
<th>Audio</th>
<th>Pinyin</th>
<th>English</th>
<th>Used as</th>
<th>Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>小王</td>
<td>Listen</td>
<td>xiào wáng</td>
<td>Xiao Wang</td>
<td>proper noun</td>
<td>1</td>
</tr>
<tr>
<td>你</td>
<td>Listen</td>
<td>nǐ</td>
<td>you</td>
<td>pronoun</td>
<td>1</td>
</tr>
<tr>
<td>你好</td>
<td>Listen</td>
<td>nǐhǎo *</td>
<td>hello</td>
<td>expression</td>
<td>1</td>
</tr>
<tr>
<td>忙</td>
<td>Listen</td>
<td>mǎng</td>
<td>busy</td>
<td>stative verb</td>
<td>1</td>
</tr>
<tr>
<td>吗</td>
<td>Listen</td>
<td>ma</td>
<td>[question particle]</td>
<td>particle</td>
<td>1</td>
</tr>
<tr>
<td>不</td>
<td>Listen</td>
<td>bù/bú *</td>
<td>not, no</td>
<td>negative adverb</td>
<td>1</td>
</tr>
<tr>
<td>我</td>
<td>Listen</td>
<td>wǒ</td>
<td>I, me</td>
<td>pronoun</td>
<td>1</td>
</tr>
</tbody>
</table>

Additionally grammar exercises can be done to examine how well students have learned those phrases. However, the grammar exercise should be well-designed to really assess students’ ability. Although each lesson in this website offers a video to enhance learning, the teacher proposed that the video was not appealing nor emotionally motivated enough to catch learners’ attention and arouse their learning interest.
Specific task # 3: Find Chinese characters related to water, love, time, and fruit.

**Learners**
Specific Chinese characters that each learner found to learn are listed in order below based on each Web site.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Characters found</th>
<th>Task completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Global Chinese Language and Culture Center</td>
<td>果</td>
<td></td>
</tr>
<tr>
<td>BBC Real Chinese</td>
<td>Not found</td>
<td></td>
</tr>
<tr>
<td>CRI English-Learn Chinese</td>
<td>Not found</td>
<td></td>
</tr>
<tr>
<td>Speak Chinese Online User 1</td>
<td>水、恋</td>
<td></td>
</tr>
<tr>
<td>Speak Chinese Online User 2</td>
<td>对象（a person you date）</td>
<td>This is a wrong answer due to the learner’s misunderstanding.</td>
</tr>
<tr>
<td>Chinese Multimedia</td>
<td>对象（a person you date）</td>
<td></td>
</tr>
</tbody>
</table>

This specific task of find particular Chinese characters seems more challenging to beginner learners since some of them only use pinyin without memorizing the Chinese strokes. To find a few characters out of a Web site is very time-consuming if the site is not well organized with a theme or topic which users can easily identify. Learners need some linguistic knowledge about the radicals otherwise they will not be able to distinguish the differences from the complicated strokes. In the BBC site, the beginner learner emphasized the necessity of a return bottom to the homepage, otherwise he would have no idea about where he was given the site has many hyperlinks leading to the outside URLs.

The intermediate learner thought the stroke exercise section of the Global Chinese Language and Culture Center was good, but it did not explain what the word means. She thought it would be beneficial if the site could have some English translation to process and acquire the meaning of the characters.
Teachers
Specific Chinese characters about “food” that each teacher found to teach are listed in order below based on each Web site.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Characters found</th>
<th>Task completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Chinese Lang. &amp; Culture Center</td>
<td>麵, 牛奶</td>
<td>4 min</td>
</tr>
<tr>
<td>CRIEnglish.com—Learn Chinese</td>
<td>块 贡</td>
<td>5 min; then gave up</td>
</tr>
<tr>
<td>Chinese Multimedia</td>
<td>茶</td>
<td>5 min</td>
</tr>
<tr>
<td>Video clips of Survival Chinese</td>
<td></td>
<td>Failed to find any section for learning Chinese character</td>
</tr>
</tbody>
</table>

Chinese characters, as the teacher pointed out, usually were rather difficult for non-Chinese speakers to learn to write. In Chinese Multimedia, the teacher thought the overall design of this section was helpful (Figure 5). It provides animation to demonstrate learners how to write the character, radicals and pronunciation of the word, and stroke order practice as well. The teacher thought it crucial to have learners practice writing Chinese characters in correct order and also have them recognize those characters. To achieve this learning outcome, as the teacher emphasized, chances provided to practice writing Chinese character is important for Chinese learners so as to acquaint themselves with those complicated strokes in a character.

![Figure 5](image-url)
However, despite the good interaction design, the teacher thought this website as well as CRIEnglish.com failed to provide sufficient characters to learn. That is, the information is deficient, which implies it may not serve as a very favorable website for teachers to look for teaching resources to assist their teaching.

Compared to the other two websites, the design of the CRIEnglish.com for character learning is far from user-friendly, as the teacher noted. Those words provided are not categorized or organized according to a theme or level as the site Global Chinese Language and Culture Center. What’s worse, those words keep playing automatically, which makes it unreadable. No translation for each word makes it more difficult to follow (Figure 6).

![Figure 6](image)

In contrast, suitable pictures like in the site Global Chinese Language and Culture Center would help visualize an object and facilitate learners’ recognition of the word (Figure 7).

![Figure 7](image)
Specific Task #4: Pronounce a word/phrase useful when traveling

Learners

Pronunciation of a word/phrase related to **traveling** that the learner has found are listed in order below based on each Web site.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Pronunciation found</th>
<th>Task completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Global Chinese Language and Culture Center</td>
<td>çòng zi</td>
<td>1 min</td>
</tr>
<tr>
<td>BBC Real Chinese</td>
<td>wǎng yòu zhuǎn</td>
<td>1 min</td>
</tr>
<tr>
<td>CRIEnglish-Learn Chinese</td>
<td>fàn diàn</td>
<td>2 min</td>
</tr>
<tr>
<td>Speak Chinese Online</td>
<td>User 1</td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>chē jǐn zěn me zǒu</td>
<td></td>
</tr>
<tr>
<td></td>
<td>User 2</td>
<td>7 min</td>
</tr>
<tr>
<td></td>
<td>shū diàn</td>
<td></td>
</tr>
<tr>
<td>Chinese Multimedia</td>
<td>jìng chá</td>
<td>1 min</td>
</tr>
</tbody>
</table>

It took a while for the learner to locate a word that he though was related to traveling on the Speak Chinese Online. Users of this website have to scroll down a lot to scan over all its sections on the Home page. Without proper use of pulldown menus or tabs, each section of the text takes too much space on the Home page, which leads to less effective navigation (Figure 8).
Besides, as for the section name on this website, the learner also indicated that he had trouble understanding what “Popular Words” exactly mean. Commonly used by many people or latest-created words or something else? This vague section name makes users confused and hesitant (Figure 9).

**Figure 8**

**Teachers**

Pronunciation of a word/ phrase related to **traveling** that teachers have found useful to teach are listed in order below based on each Web site.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Pronunciation found</th>
<th>Task completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Chinese Language and Culture Center</td>
<td>dìng piào</td>
<td>3 min</td>
</tr>
<tr>
<td>CRIEnglish.com—Learn Chinese</td>
<td></td>
<td>Didn’t find one.</td>
</tr>
<tr>
<td>Chinese Multimedia</td>
<td>dā fēi jī</td>
<td>5 min</td>
</tr>
<tr>
<td>Video clips of Survival Chinese</td>
<td>dìng</td>
<td>5 min</td>
</tr>
</tbody>
</table>
When looking for helpful teaching materials to teach pronunciation on a website, teachers all agree that the script of pinyin or the audio (or plus visual) aid play an essential part. Learners can easily learn to pronounce a word by imitating the sound.

However, as the teacher indicated, the design of the Video clips of Survival Chinese would be difficult for beginners to learn the pronunciation of a specific word. That is mainly because the whole script shown on the website is all in Chinese. Only some words in the Chinese script are annotated with pinyin and English translation on another box. Those beginners who can’t recognize many Chinese words would have to try every annotated transcript to find the pinyin and its English meaning. In addition, all scripts are presented with the form of a video clip. Learners can’t choose to listen to the pronunciation of specific words or phrases (Figure 10).

Also as one of the teachers pointed out, websites with limited content theme may decrease their frequent visiting to the website frequently when looking for teaching materials. In addition, contents need to be updated once in a while for the site’s credibility and validity.
Task 5: Open Ended Task

In this task the user has to identify a lesson/activity on the site, which they regard as helpful in learning to start up a conversation with a friend in Chinese.

Since the task is very flexible and could have different possible answers, the following analysis of each Chinese learning website tries to describe what the users reported from each task, and concludes some important design issues.

Site # 1 The Global Chinese Language and Culture Center

The intermediate user was concerned about the issue that title which said “dialogue,” but was neither a dialogue practice nor a conversation. She regarded the site as an interactive one, and she learned how to say “notebook” in Chinese. Her experience of playing the games was fun and the information was helpful. However, she would have preferred an actual example of starting up a conversation if she literally to function well in a real Chinese-speaking environment.

Site # 2: The BBC Real Chinese

The user picked a lesson about introducing oneself. High frequency vocabulary used in the content is thought to be very helpful.

The beginner learner liked this site because it had a section in casual conversation. The user said he did not learn much because he knew most of the words already. The website was ok but the information was too basic, and, therefore, only minimally useful to him.

Site # 3: CRIEnglish.com-Learn Chinese

The user selected this section because of the user-friendly table of contents with file and key phrases. The user suggested that the recorded dialogue that accompanied the written dialogue was very helpful. He mentioned the interaction on this site was quite similar to the mp3 pimsler self-study lessons he downloaded from the library database in terms of the input reinforcement and high-frequency vocabulary. He felt the everyday topic and words were most intriguing to him. The only issue he talked about was the sequencing of the table of content, which was not well organized in a logical way, thereby requiring some adjustment (Figure 11).
The Chinese teacher selected a lesson on learning how to greet people since she thought it was important in Chinese culture to build up a good relation with others. With the aid of a video, she thought it would be interesting and motivating for learners to learn from the video and imitate Chinese native speakers’ pronunciation and tone. However, the font size in this section is too small to read and not consistent. Besides, the teacher also pointed out the application of appropriate pictures and colors would help the section be more appealing. Also, she felt there were not enough up-to-date or interesting topics to choose from for teaching materials in this section.

Another user thought the design of the table contents made the interface user-friendly. Also because of the recorded dialogue that accompanied the written dialogue, he pointed out it was good for beginning learners.

Site # 4: Speak Chinese Online Confucius Institute

Since the website fails to indicate the topic of each lesson (Figure 12), users found it difficult to locate the desired lesson. It really frustrated the user to look for information in this site.
In addition, the user pointed out the dialogue was too long to read. Although the information is useful, the lengthy text would make the website overwhelming.

**Site # 5: Chinese Multimedia**

Basically it was easy for the teacher to find a dialogue on a topic she thought would be appropriate. However, the content of the conversation left was lacking. The teacher pointed out it seemed boring and not informative enough to the students.

**Site # 6: Video Clips of Survival Chinese**

The section of “small talk” could have been the one to start up the conversation because it had the simple greetings sentence patterns. However, the pragmatics sounded a little strange because the conversations flows seemed to break down. The teacher user recommended that more comprehensive contexts should be provided for learners for the language functions and purpose of speech.
Task 6: Open Ended Task

Users identify a lesson/activity which they consider most suitable on the site and learn to introduce Chinese culture to American friends.

Site # 1 The Global Chinese Language and Culture Center

The intermediate user found the cultural information on this site very easily and for that reason she chose that section. She pointed out that the fictional Chinese literature became prominent during the Tang dynasty. She considered the information is somewhat out-of-date for the Chinese learners and it might require some reconstruction with contemporary cultures that would be more fun and of more interest. Actually, without further explanation of a Chinese teacher, those contents of the classic Chinese literature (Figure 13) may seem incomprehensible and not appealing to learners without Chinese history background. For example, Chinese learners may not realize how honorable and glorious it was to win first place in imperial examination in the ancient Chinese society.

![Figure 13](image)

She also suggested that it would be great to have a website that lets users “draw” the character and then gives the user the English definition and the pinyin with tones as well as a function that would let users create personalized vocabulary lists in a systematic way.
Site # 2: The BBC Real Chinese

The beginner learner picked the family introductions, for he regarded family an essential concept in Chinese culture. He learned how to say “husband” in Chinese. His experience of this task was fun considering the authenticity and usefulness of the information he could use in China. He also commented on the high-frequency vocabulary selected in the lessons with “hěn hǎo!”

Another user also chose Chinese family because it was an interesting topic to know. He came to realize that Chinese family used to be big and family members live together, but that they are becoming smaller now. He considered the information helpful.

The video clip not only helped the website be more interactive, but the content of the video was also meaningful and informative for this topic (Figure 14).

However, the user suggested a small online exercise of guessing games, comparing American/Chinese family cultures and more about PRC’s (People Republic Of China) one-child policy.
The beginner learner chose Confucius since it is a prominent concept that came up on the first page. He enjoys learning about the biography and teaching philosophy as the Chinese greatest mentor and teacher. The in-depth understanding of Confucius is helpful in introducing Chinese culture as he is influential in Chinese/Taiwanese educational system.

The Chinese teacher chose idioms, stories and poems as the material to teach Chinese culture. However, she thought the information in this section was not useful for Chinese learners because the origin and the explanation of those idioms, stories and poems were not explicit enough to make Chinese learners understand. Only Chinese and English translations were provided (Figure 15). More detailed explanation would be needed to teach learners to appreciate the profound meaning of those idioms, stories or poems. Besides, the background is not aesthetically-motivating.

![Figure 15](image)

**Five-character-ancient-verse**

**Drinking Alone with the Moon**

From a pot of wine among the flowers
I drank alone. There was no one with me --
Till, raising my cup, I asked the bright moon
To bring me my shadow and make us three.
Alas, the moon was unable to drink
And my shadow tagged me vacantly;
But still for a while I had these friends
To cheer me through the end of spring....
I sang. The moon encouraged me.
I danced. My shadow tumbled after.

Site # 4: Speak Chinese Online Confucius Institute
One of the users selected the ancient Chinese poetry on this site and made some commented on this section. First of all, he had difficulty choosing which poems he could learn. Because there is no title for each lesson in the pulldown menu, users can’t locate which lesson he would like to learn (Figure 16). As for the content of the poem, there was no explicit explanation of the poem. Only part of the phrase is explained in Chinese (Figure 16), which is really challenging for Chinese beginner learners. However, the user liked the background music played by guzheng (a kind of Chinese musical instrument) as soon as he went onto this page. In addition, he enjoyed the flash animation presented when showing the lines of the poem.

![Figure 16](image)

The user found an English translation for the poem analysis. However, he suggested that the
font size should be enlarged to be more readable (Figure 17). In addition, the text could have been separated into paragraphs

Another beginner learner chose one of the Chinese idioms to learn. The user could have an easy control over the animation by clicking the icon back and forth. The idiom lesson is presented by an animation with audio in Chinese (Figure 19). This is kind of hard for a Chinese beginner learner since their listening ability is limited. Thus he relied on the English text a lot. The literal translation of the idiom is provided under the animation. The user had to read down through another paragraph to get the real meaning of the idiom. After that, instead of giving sentences as examples of how to use this idiom exactly, there were some irrelevant idioms following the text, which confused the user.
Site # 5: Chinese Multimedia

Both users of this website, a teacher and a Chinese learner picked the calligraphy brush section, but they merely learned how to purchase it and negotiate for the price. Little cultural content on the introduction to calligraphy was provided. Both of them did not like the lesson too much owing to the on-the-surface content, since it needed to be supplemented with cultural background information. Overall the Chinese culture was insufficient in their site.
Site # 6: Video Clips of Survival Chinese

This site does not have too many cultural resources since each topic is quite functional and practical. There is little in-depth introduction or exploration about the arts, customs, history, people, and so forth. Therefore, a culture channel could have been included for bridging student’s gap between language and its macro aspect of cultures.

Generally speaking, the information design of this task is relatively crucial since it is far from easy for Chinese language learners without Chinese historical or cultural background to comprehend the cultural content. Thus, what should be introduced in a culture (information), how to present a culture (interface) and what can motivate learners to know a new culture in a different language (interaction) is an issue that language learning web designers should attend to.

Summary and Conclusions

The goal of this usability study on the six Chinese learning websites is to examine what types of design elements can help construct the most effective web-based learning environment for Chinese language learners as well as analyze different users’ needs from both perspectives of Chinese learners (beginning and intermediate level) and Chinese teachers. We have made a couple of conclusions from the discussion of those tasks regarding the effective design features of Chinese learning websites in terms of 3I—interface, information, and interaction.

A few essential findings about the features of improving the interface design of Chinese learning website. First of all, well-organized and emotionally-motivated layouts play a crucial role in enabling users to navigate effectively and to be willing to spend more time on learning through the website. From those six websites we used for the usability test, two of the sites, CRIEnglish.com and Speak Chinese Online, have more complicated layouts with quite a few unfavorable advertisements or redundant links, particularly on the Home page. Users may easily get distracted and lost due to the complex layouts with overwhelming information or formats that require a great deal of scrolling. In addition, easy navigation—prominent links to take users to where they expect to go such as go/return buttons provided on every page to go back and forth is fundamental. Most of the participants in this study had trouble going back to the Home page in certain Chinese learning websites, such as CRIEnglish.com and Speak Chinese Online Confucius
Institute. They ended up giving up quickly or wasting plenty of time. Thus, making good use of the Home buttons, breadcrumbs or “you’re here” indicators can help users locate where they are. What’s more, the font sizes and colors often decide the readability of the website.

A moderate amount of the learning material is required to make the website informative and educational on a language learning website. A resourceful Chinese learning site can increase the frequency of user visits. In addition to providing users with rich content, recognizable organization and meaningful categorization of those contents is highly significant. Comprehensible site hierarchy and layers of information is of great help to web users on the Home Page. Moreover, to make the Chinese leaning website user-friendly to most learners, the design of the website should be able to address the needs of learners at different levels such as basic, intermediate, advanced or with different learning goals that cover learning Chinese characters, poems, grammar and so forth. Another indispensable feature for information design in Chinese learning website is the proper and sufficient translation for instructions provided in every learning section. Especially for beginners, a website barely with proper translation as guidance would easily frustrate their learning desire and impede users’ navigation of the site. As for the content itself, as some of the participants pointed out, whether it is interesting, up-to-date, or accurate is very important to them.

When it comes to interaction design, proper use of pictures, photos, animation, movie clips, and audios would be of great help in conveying the message and facilitate learners’ comprehension, especially on language learning websites. For example, the aid of audios can greatly improve the learning of pronunciation and listening ability. Appropriate pictures or photos assist learners in visualizing an object or concept when they encounter new and unfamiliar vocabulary. Additionally the application of online interactive games in Chinese activities makes learners more motivated and engaged in practicing Chinese. As most of the participants on the usability tests indicated that appropriate search function provided like a search box in a Chinese learning website could be of great assistance to them in efficiently locating what they need on the site. Furthermore, adequate feedbacks including correction of the answers in the learning activities or exercise should be incorporated to foster the learning processes and maximize learning effects.

Among those Chinese learning websites evaluated, Global Chinese Language and Culture Center (http://edu.ocac.gov.tw/) comparatively has the best accomplishment of the design principles in terms of information, interface and interaction. As far as the Chinese teachers are concerned, this site provides them with various and abundant teaching resources and materials to
support their teaching. As for the learners, the categorization by different levels of Chinese proficiency makes it easier for them to get started on the website. This site also applies on-line Chinese games and broader culture materials to activate learner’s motive and engagement.

As Peterson (1998) noted, it takes extensive planning and a considerable investment of time to perfect a virtual language learning environment. To maximize learning outcomes, any design principle for creating a web-based language learning environment should encompass the central requirement of addressing learners’ needs in addition to well-grounded underpinning of language learning theories. Combining those theories with clear goals of learners’ needs, an effective web-based language learning environment can be built not only to facilitate language acquisition but also to strengthen learners’ flexibility and capabilities of actively managing their own learning.

Limitation and Future Research

The limitation of this usability study comes from the small number of participants in the elementary and intermediate level of Chinese learners as well as the unavailability of full-time Chinese teachers. Due to the time constraint, some users could not finish the Web sites we planned to assign them; thereby, the results can not be easily compared within the same level of learners and may not be overgeneralized. For the future research, it would be better to have participants with the same level or equal number of participants in different levels and test the usability of same Web sites in order to examine the correlation between independent variables (e.g., age, gender, 3Is features) and dependent variables (e.g., learners’ responses to the sites). It will also be necessary to observe learners’ language development via the longitudinal Web site study, if its relationship is to be investigated with usability. Overall, this current exploratory study provides us insight for conducting a better-designed usability test in the future and important experiment procedures that should be paid attention to.
English References


Chinese References


Appendix—A

Results of the Learners’ Background Questions

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>Computer Experience</th>
</tr>
</thead>
<tbody>
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<td>Age</td>
<td>Gender</td>
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<td>Male</td>
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<tr>
<td>(n=1)</td>
<td>(n=2)</td>
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<tr>
<td>26-30</td>
<td>Female</td>
</tr>
<tr>
<td>(n=1)</td>
<td>(n=1)</td>
</tr>
<tr>
<td>31-35</td>
<td>Work</td>
</tr>
<tr>
<td>(n=)</td>
<td>(n=1)</td>
</tr>
<tr>
<td>Over 50</td>
<td>Online</td>
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</tr>
</tbody>
</table>
## Appendix—B

### Results of the Teachers’ Background Questions

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>Computer Experience</th>
<th>Purpose of Internet Use</th>
<th>Computer Experience</th>
<th>Web Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Gender</td>
<td>Computer Preference</td>
<td>Internet Access</td>
<td>Time spent on the Internet daily</td>
</tr>
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<td>21-25</td>
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<td>PC</td>
<td>Home</td>
<td>1-3 hrs</td>
</tr>
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<td>(n=2)</td>
<td>(n=3)</td>
<td>(n=2)</td>
<td>(n=1)</td>
</tr>
<tr>
<td>26-30</td>
<td>Female</td>
<td>School</td>
<td>Work</td>
<td>10 hrs or more</td>
</tr>
<tr>
<td>(n=2)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=2)</td>
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</tbody>
</table>
Appendix—C

The following chart represents the mean scores that each website receives from the different participants (Mean scores=Total scores/Number of participants). The evaluation of interface includes question 4, 7, 9; the information evaluation consists of question 1, 2, 3, 8 and the interaction evaluation covers question 6.

<table>
<thead>
<tr>
<th></th>
<th>Interface</th>
<th>Information</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Global Chinese Language and Culture Center</td>
<td>3.83</td>
<td>4.33</td>
<td>4.32</td>
</tr>
<tr>
<td>2. BBC Real Chinese</td>
<td>4.27</td>
<td>3.75</td>
<td>4</td>
</tr>
<tr>
<td>3. CRIE English-Learn Chinese</td>
<td>3.67</td>
<td>4.25</td>
<td>4</td>
</tr>
<tr>
<td>4. Speak Chinese Online</td>
<td>2.34</td>
<td>2.12</td>
<td>4</td>
</tr>
<tr>
<td>5. Chinese Multimedia</td>
<td>4.2</td>
<td>3.87</td>
<td>3.5</td>
</tr>
<tr>
<td>6. Video clips of Survival Chinese</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix—D

Consent Form

User Id:  
Date:  

Informed Consent  
Study Administrator is:  
Participant:  

Introduction  

You have been scheduled to participate in a usability study about how websites meet your needs. Our purpose in conducting this study is to understand what makes some websites easier to use than others. The results of this study will NOT be published in professional reports. Please keep in mind that this is a test of websites; we are not testing you! In the session, we’ll ask you to visit some websites and look for various things. You will not be required to actually buy anything or to enter any personal or credit card information online. All information we collect concerning your participation in the session is confidential. We will not videotape or audiotape the session. Participation is voluntary. To the best of our knowledge, there are no physical or psychological risks associated with participating in this study. During the session, the study administrator will assist you and answer any questions. You may take short breaks as needed and may stop your participation in the study at any time. It takes about 30-min.- 1 hour to complete testing each website.  

Statement of Informed Consent  

I have read the description of the study and of my rights as a participant. I agree to participate in the study.  

Signature _______________________________
Appendix—E

Participant Usability Questionnaire for Chinese language Learner

Overview
This is a research study about Chinese teaching and learning websites. We would like to investigate what makes some websites easier to use than others. This study takes about one-two hours. You will be asked to visit two websites and attempt to perform certain tasks. We will sit by you, observing and taking notes. We will also capture your on-screen interactions via Captivate. We will try our best to keep your information and data as confidential as possible. Any personal information and data collected during this study will only be used for research purpose, and will not be released to any other third party or individual (besides the professor and TA of record for the UT course Design Strategies for New Media). Thank you very much for volunteering in this usability test. We appreciate your participation and valuable opinions.

Background Questionnaire

I. Demographic Information
1. Name: _______________
2. Age: ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ 31-35 ☐ 36-40 ☐ 41-50 ☐ Over 50
3. Gender: ☐ Male ☐ Female
4. Computer use preference: ☐ PC ☐ Mac

II. Computer Experience
5. Where do you usually surf the Internet?
   ☐ home ☐ school ☐ work ☐ other______
6. How much time do you spend on the Internet per day?
   ☐ less than 1 hour ☐ 1-3 hours ☐ 3-6 hours ☐ 6-9 hours ☐ 10 hours or more
7. How long have you been using Internet?
   ☐ less than 1 year ☐ 1-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years
   ☐ 12 years or more
8. How long have you been using the computer?
   - less than 1 year
   - 1-3 years
   - 3-6 years
   - 6-9 years
   - 9-12 years
   - 12 years or more

9. What do you usually use Internet for? (check items that describe your real situation)
   - email
   - online chatting
   - playing games
   - looking for information
   - self-study
   - taking online courses
   - online shopping
   - other ________________

10. Please evaluate your computer experience?
    Not experienced at all I------------I------------I------------I------------I very experienced
        1         2         3         4         5

11. Please evaluate your web surfing experience?
    Not experienced at all I------------I------------I------------I------------I very experienced
        1         2         3         4         5

III. Web site usage for learning Chinese

12. How long have you been learning Chinese?
   - less than 1 year
   - 1-3 years
   - 3-6 years
   - 6-9 years
   - 9-12 years
   - 12 years or more

13. Have you used the Internet to study Chinese? □ yes □ no
    If yes, please go to question 14.
    If not, this is the end of the questionnaire.

14. Do/Did you have any specific reason for using Internet as a Chinese learning tool?
    __________________________________________________________________________

15. How much time do/did you spend on the Internet for learning Chinese per week?
    __________________________________________________________________________

16. Please list 1 or two websites you visited most frequently.
    __________________________________________________________________________
    __________________________________________________________________________

17. Please evaluate how much you like to use the web to learn Chinese.
    Not at all I------------I------------I------------I------------I Very much

18. Please evaluate your Chinese skills
Participant Usability Questionnaire for Chinese language Teachers

Overview
This is a research study about Chinese teaching and learning websites. We would like to investigate what makes some websites easier to use than others. This study takes about one-two hours. You will be asked to visit two web sites and attempt to perform certain tasks. We will sit by you, observing and taking notes. We will also capture your on-screen interactions via Captivate. We will try our best to keep your information and data as confidential as possible. Any personal information and data collected during this study will only be used for research purpose, and will not be released to any other third party or individual (besides the professor and TA of record for the UT course Design Strategies for New Media). Thank you very much for volunteering in this usability test. We appreciate your participation and valuable opinions.

Background Questionnaire

I. Demographic Information
19. Name: _____________
20. Age: □16-20 □21-25 □26-30 □31-35 □36-40 □41-50 □Over 50
21. Gender: □ Male □ Female
22. Computer use preference: □PC □ Mac

II. Computer Experience
23. Where do you usually surf the Internet?
   □ home □ school □ work □ other ______
24. How much time do you spend on the Internet per day?
   □ less than 1 hour □ 1-3 hours □ 3-6 hours □ 6-9 hours □ 10 hours or more
25. How long have you been using Internet?
   □ less than 1 year □ 1-3 years □ 3-6 years □ 6-9 years □ 9-12 years □ 12 years or more
26. How long have you been using the computer?
27. What do you usually use Internet for? (check items that describe your real situation)
   □ email  □ online chatting  □ playing games  □ looking for information  □ self-study
   □ taking online courses  □ online shopping  □ other _________________________

28. Please evaluate your computer experience?
   Not experienced at all I------------I------------I------------I------------I very experienced
   1         2         3        4        5

29. Please evaluate your web surfing experience?
   Not experienced at all I------------I------------I------------I------------I very experienced
   1         2         3        4        5

III. Web site usage for teaching Chinese

30. How long have you been teaching Chinese?
   □ less than 1 year □ 1-3 years □ 3-6 years □ 6-9 years □ 9-12 years □ 12 years or more

31. Have you used the Internet to teach Chinese? □ yes □ no
   If yes, please go to question 14.
   If not, this is the end of the questionnaire.

32. Do/Did you have any specific reason for using Internet as a Chinese teaching tool?
   ________________________________________________________________

33. How much time do/did you spend on the Internet for teaching Chinese per week?
   ________________________________________________________________

34. Please list 1 or two websites you have used to teach Chinese.
   ________________________________________________________________
   ________________________________________________________________

35. Please evaluate how effective you feel to use the web to teach Chinese.
   Not at all I------------I------------I------------I------------I Very effective

36. Please evaluate your Chinese skills
   Basic I------------I------------I------------I------------I Advanced
Appendix—G

Participant Usability Sequence—Chinese Learners

The Sites:

<table>
<thead>
<tr>
<th>Name of Web Sites</th>
<th>URLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture Center</td>
<td></td>
</tr>
<tr>
<td>2. BBC Real Chinese</td>
<td><a href="http://www.bbc.co.uk/languages/chinese/real_chinese/">http://www.bbc.co.uk/languages/chinese/real_chinese/</a></td>
</tr>
<tr>
<td>5. Chinese Multimedia</td>
<td><a href="http://www.csulb.edu/~txie/online.htm">http://www.csulb.edu/~txie/online.htm</a> (In the section of conversation)</td>
</tr>
<tr>
<td>6. Video clips of Survival Chinese</td>
<td><a href="http://www2.kenyon.edu/People/bai/VCSC.htm">http://www2.kenyon.edu/People/bai/VCSC.htm</a></td>
</tr>
</tbody>
</table>

Initial Task (#1):
Take a look at a site, you have about 3 minutes to explore.

-----Let me know when you are finished------

Specific Task (#2):

1. Learn Chinese phrases
   Imagine you are going to Beijing or Taipei for two weeks travel for a short-term tour. You would like to learn some simple phrases in order to **order food in a restaurant**.

   (a) Use this site to find four phrases that you feel most useful.
   (b) How long did it take you to find the phrases on the Web site? __________
   (c) Please write down those four phrases you have found. (either in Pinyin or in English)
Specific Task (#3):
(a) Find out from the Web site how to write the Chinese character “water” or “.” Please write the word to the observer. ________________
(b) How long did it take you to find the word on the Web site? ______________

Specific Task (#4):
(a) Find and learn to pronounce a word/ phrase you think useful when traveling. Please pronounce the word/ phrase to the observer. ___________
(b) How long did it take you to find and learn the word on the Web site? _____________

Open Ended Task (#5):
Pretend you would like to learn how to start up a conversation with a friend in Chinese. Identify a lesson/ activity on the site which you think the most helpful and learn the lesson/ activity for 5-10 minutes.

(a) What made you chose the section you ended up using?
(b) What did you learn from your interaction?

(c) Was it fun? Why?

(d) Do you this the information is useful?

(e) Other comments or suggestions

-----Let me know when you are finished-----

**Open Ended Task (#6):**
Imagine you are going to introduce Chinese culture to your American friends. Select an area you are aiming to talk about and identify a lesson/activity on the site which you think the most useful for your work.

(a) What made you chose the section you ended up using?

(b) What did you learn from your interaction?

(c) Was it fun? Why?

(d) Do you this the information is useful?

(e) Other comments or suggestions

-----Let me know when you are finished-----
Appendix—H
Participant Usability Sequence—Chinese Teacher

The Sites:

<table>
<thead>
<tr>
<th>Name of Web Sites</th>
<th>URLs</th>
</tr>
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<tbody>
<tr>
<td>2. BBC Real Chinese</td>
<td><a href="http://www.bbc.co.uk/languages/chinese/real_chinese/">http://www.bbc.co.uk/languages/chinese/real_chinese/</a></td>
</tr>
<tr>
<td>5. Chinese Multimedia</td>
<td><a href="http://www.csulb.edu/~txie/online.htm">http://www.csulb.edu/~txie/online.htm</a> (In the section of conversation)</td>
</tr>
<tr>
<td>6. Video clips of Survival Chinese</td>
<td><a href="http://www2.kenyon.edu/People/bai/VCSC.htm">http://www2.kenyon.edu/People/bai/VCSC.htm</a></td>
</tr>
</tbody>
</table>

Initial Task (#1):
Take a look at a site, you have about 3 minutes to explore.

-----Let me know when you are finished-----

Specific Task (#2):

1. Teach Chinese phrases
Imagine your students are going to Beijing or Taipei for two weeks travel for a short-term tour. You would like to teach phrases about watching a movie.

(d) Use this site to find four phrases that you feel most useful.
(e) How long did it take you to find the phrases on the Web site? _________
(f) Please write down those four phrases you have found.

1. ______________________________________
2. ______________________________________
3. ______________________________________

4. ______________________________________

-----Let me know when you are finished-----

**Specific Task (#3):**

(c) Find out from the Web site how to teach Chinese characters about food. Please write the word to the observer. ______________

(d) How long did it take you to find the word on the Web site? ______________

-----Let me know when you are finished-----

**Specific Task (#4):**

(c) Find relevant teaching materials about how to pronounce a word/phrase you think useful when traveling. Please pronounce the word/phrase to the observer. ______________

(d) How long did it take you to find and learn the word on the Web site? ______________

-----Let me know when you are finished-----

**Open Ended Task (#5):**

Pretend you would like to teach your students how to start up a conversation with a friend in Chinese. Identify a lesson/activity on the site which you think the most helpful and learn the lesson/activity for 5-10 minutes.

(f) What made you choose the section you ended up using?

(g) What did you learn from your interaction?

(h) Was it fun? Why?

(i) Do you think the information is useful?

(j) Other comments or suggestions

-----Let me know when you are finished-----
Open Ended Task (#6):
Imagine you are going to teach your students about introducing Chinese culture to their American friends. Select an area you are aiming to talk about and identify a lesson/activity on the site which you think the most useful for your work.

(c) What made you chose the section you ended up using?

(d) What did you learn from your interaction?

(c) Was it fun? Why?

(d) Do you think the information is useful?

(k) Other comments or suggestions

-----Let me know when you are finished-----
Appendix—I

Site Feedback Questionnaire
User Name: Date: Website:

This questionnaire is to understand your perspectives of the overall usability about the site you navigated. Please evaluate the site based on your own experience. (5=Very satisfied, 3=neutral, 1=very unsatisfied)

1. Ease of searching the information/activities
   1 2 3 4 5
2. Quality of information/activities
   1 2 3 4 5
3. Ease of reading the text
   1 2 3 4 5
4. Appearance of the site, including colors and graphics
   1 2 3 4 5
5. Speed of the pages displaying
   1 2 3 4 5
6. Fun, entertaining value
   1 2 3 4 5
7. Overall learning experience
   1 2 3 4 5
8. Ease of understanding the instructions for activities
   1 2 3 4 5
9. Ease of moving around the site without getting confused
   1 2 3 4 5
10. Any other comment:

11. Please check the skills that you practiced and evaluate how useful this site is for enhancing the Chinese skills you practiced. (5=Very useful, 3=neutral, 1=useless)

<table>
<thead>
<tr>
<th>Check the skills that you practiced</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking</td>
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<tr>
<td>Culture</td>
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</tr>
</tbody>
</table>

For whom do you feel this site is best suited?

What are the site’s weaknesses?

What are the site’s strengths?