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LEARNING CHINESE CHARACTERS: A COMPARTATIVE STUDY OF THE LEARNING STRATEGIES OF STUDENTS WHOSE NATIVE LANGUAGE IS ALPHABET-BASED AND STUDENTS WHOSE NATIVE LANGUAGE IS CHARACTER-BASED

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ABSTRACT

The number of university students studying the Chinese-language in the United States has been increasing in recent years. But despite the growing number research studies regarding learning strategies, and language-learning strategies, little research has been conducted on the most effective methods of learning Chinese characters. A review of the literature has revealed no study that addresses this issue with an eye to the question whether students whose first language is alphabet-based use character-learning strategies in a manner that differ from the use of such strategies by students whose first language is character-based. This case study examines that question.

Two groups of students enrolled in a third-semester Chinese-language course participated in this study. The "alphabet-based" group consisted of American students whose native language was English, and the "character-based" group consist of native-Japanese students whose native language was Japanese. Interviews were conducted with all participants in the study. The participants' "study logs" were examined, and the researcher observed each participant's progress throughout the relevant semester to provide corroborative and evaluative data. Analysis of data showed that all participants from both groups viewed the task of Chinese-character learning as a difficult one, and consequently all employed learning strategies of various types, both direct and indirect, throughout the studied semester.

The study revealed that both groups used memory and cognitive strategies approximately equally, but that the groups emphasized different subcomponents of those strategies. Both groups reported usage of metacognitive strategies an equal amount, but the American group was more capable of describing how, exactly, such strategies were employed; and the Japanese group used compensation and social strategies to a greater extent.

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CHAPTER I

INTRODUCTION

Background

As the world becomes increasingly interconnected and competitive, more and more college students are motivated to learn about the languages and cultures of other countries. In recent years, college students in the United States have expressed interest in the "less-commonly-taught languages." More specifically, the Modern Language Association (an organization of scholars promoting the study of languages and literature) reported that Chinese and Japanese have recently become the two foreign languages with the highest college-level enrollment growth in America, with Chinese-language student enrollment increasing about 72 percent between 1980 and 1990 (Brod, 1988; MLA, 1991). According to Modern Language Association, there were 34,153 students studying Chinese in 2002. The increased enrollment in Chinese-language classes has resulted not only from increased interest in the Chinese language on the part of American students, but also from similarly increased interest from students from Asian countries, primarily Japan. These students have come to the United States to pursue their higher education.

As a result, it is common in United States universities for Chinese-language classes to be composed of both American students whose native language is Roman alphabet-based (English) and students whose native language is character-based (often, Japanese).

Chinese characters have a four-thousand-year history; Chinese is one of the oldest written languages in the world (Defrancise, 1984). Chinese characters have evolved from what originally were pictographs into today's modern forms (Yao & Liu, 1994).

The Chinese writing system is consequently quite different in appearance from the appearance of the Western alphabetic writing system. Because the Chinese characters are so numerous, of the most complex tasks in learning the Chinese language is the learning of Chinese characters. Huang et al. (1986) indicated that all Chinese characters are square in shape; thus, they have been referred to as "square characters." To be able to read in Chinese, one needs to learn at least 3,000 written characters. Learning Chinese characters involves three aspects: pronunciation, shape, and meaning (Yin, 2003). Chinese characters represent the Chinese spoken language in a largely irregular and unsystematic way.

To American students whose native English language is alphabetic, learning to read Chinese is especially difficult and challenging due to the nonalphabetic nature of its writing system (Everson, 1998; Ke, 1998; Yin, 2003). For students whose native language is character-based, on the other hand, learning new Chinese characters appears to be among the easier of the Chinese-language learning tasks.

Having these two distinctive groups in a single Chinese-language class creates an interesting and diverse learning environment. It also creates instructional problems for Chinese-language instructors. The task of designing appropriate lessons and methods of instruction to better accommodate students with uneven character-learning skills has become a significant challenge for many Chinese-language instructors in American universities.

According to Wenden and Rubin (1987), since the early seventies, the research-focus in the area of second-language learning has shifted dramatically from teaching methods (e.g., "Total Physical Response," "Community Language Learning," "the Silent way," etc.) to the characteristics of language learners and their own influence on the process of learning language. Oxford (1990) also indicated that the focus of foreign language classrooms has shifted from a teacher-centered one to a learner-centered one, and from a focus exclusively on improving teaching to a focus on "how learners go about their learning tasks in a second or foreign language" (p. vii).

More specifically, a major by-product of the growing interest in studying about learner-centered teaching and learning has been a new focus on examining how learners can make use of learning strategies to become independent, autonomous, and effective language learners (Wenden & Rubin, 1987; Oxford, 1990). According to Oxford et al. (1990), one way of helping foreign-language learners is to make them aware of the various language-learning strategies, and to integrate training in appropriate learning strategies into the language curriculum.

To further emphasize the importance of learning strategies to foreign-language learning, Oxford et al. (1990) study stated:

> The dissemination of notions about learner strategies in language learning means the supplying of potentially beneficial means for improving target-language learning. It does *not* mean the imposing of dubious and largely irrelevant categories on learners from cultural groups for which such categories may be inappropriate. . . . [L]earners from a multiplicity of backgrounds can find benefit in one or another set of learning strategies. Once learned, some of these strategies become automatic among learners, while others need to be consciously called into play by the learner or by the teacher in order to be accessible (p. 1).

Although Chinese-language study has become increasingly popular in American universities over the past two decades, research as to the most effective methods of teaching Chinese as a foreign language is still in its infant stage. This is especially true with respect to the area of effective Chinese-character learning.

Therefore, the purpose of this study is to investigate the Chinese-character learning strategies employed by both American students (whose native language is alphabet-based) and Japanese students (whose native language is character-based). This study will compare the learning approaches and strategies of students from both groups, and will attempt to determine whether the similarities and differences in Chinese-character-learning strategies between the two groups form patterns.

Need for the Study

Learning strategies are generally defined as behaviors, techniques, or actions used by learners to enhance their learning. Language-learning strategies are learning strategies applied to obtaining skills in a foreign language (Oxford & Nyikos, 1989).

There have been many studies about foreign-language learning that have focused on identifying effective learning strategies in the areas of speaking, listening, reading, and writing skills (Oxford & Crookall, 1989; Vogely, 1995; Sanaoui, 1995). More specifically, a number of studies have explored the strategies that foreign-language learners employ in vocabulary acquisition (Brown & Perry, 1991; Lawson & Hogben, 1996; Sanaoui, 1995). Those studies have come to the conclusion that "good" vocabulary learners use substantially *more* learning strategies than "poor" vocabulary learners. The research also indicated that successful foreign-language learners employed a wider variety of approaches to acquire new vocabulary (and used them more consistently) than did less-successful language learners.

While the foreign-language-learning research described above is helpful to understand the broader problem, that research was limited to Roman alphabet-based European languages such as English, French, and Spanish. Only limited research has been done with respect to Chinese-language learning. McGinnis (1995), for example, identified some strategies that first-year Chinese-language students used in learning Chinese characters. Ke (1996) implied that there is a

strong relationship between Chinese language-learners' ability to *recognize* characters and their ability to *write* characters. Furthermore, Everson (1996) found that there is a correlation between learners' ability to *pronounce* characters correctly and their ability to identify the *meaning* of the characters.

Although recent Chinese-language learning research has begun to focus on Chinese-character acquisition, none has attempted a comparative study of Chinese-character-learning strategies employed by learners whose native language is Roman alphabet-based and those whose native language is character-based. This study will attempt to do precisely that.

Significance of the Study

This study may contribute to a greater understanding of the processes of Chinese-character learning. The information gained from the study will help Chinese-language instructors not only to know their students' strategies and approaches to learning Chinese characters, but also to optimize their teaching styles in the increasingly-common situation in which their students have mixed language backgrounds. It will hopefully motivate Chinese-language instructors to design more efficient and practical Chinese-language curricula, and to implement them in the classroom in ways that will enhance the learning experience and outcomes both for students whose native language is alphabet-based and for those whose native language is character-based.

Research Question

This study is guided by the following overarching question: Do the Chinese-character learning strategies employed by university students differ between Chinese-language learners whose first language is alphabetic and Chinese-language learners whose first language is character-based?

Limitations and Delimitations

This study attempts to describe the language-learning strategies generally used by two different groups of Chinese-language learners, and the general approaches most commonly taken by members of those groups in learning Chinese characters. More specifically, it focuses on and contrasts the strategies of Chinese-language learners whose first language is alphabet-based with those of Chinese-language learners whose first language is character-based. It is designed to help Chinese-language instructors to better understand the relationship between students' reading skills and learning habits, and whether those factors differ as between the first-language-alphabet group and the first-language character-based group. The overarching goal is to provide additional insights to Chinese-language instructors so that they may better help their students to learn to read the Chinese language more efficiently.

The study examines a small group of students learning the Chinese language in a small-university setting. It included volunteer participants who were familiar with the researcher and who had agreed to participate in the study. The

researcher was thus involved in, and in some sense, participated in the study. Because the researcher was the Chinese-language instructor, the researcher observed, monitored, and discussed with the participants their progress in learning Chinese characters. Glesne and Peshkin (1992) have pointed out both the pros and cons of simultaneously being the observer and participant in a study: “The more you function as a member of the everyday world of the researched, the more you risk losing the eyes of the uninvolved outsider; yet the more you participate, the greater your opportunity to learn” (p. 40).

This study was subject to three limitations:

1. Only a small number of university students were included in the study. Thus, the result of the study does not attempt to generalize about all university-level Chinese-language learners, and cannot generalize about those who learn Chinese as a second language in ways other than the university-classroom setting (as, for example, English-speakers or Japanese-speakers who travel to China for extended periods, immerse themselves in the Chinese-speaking environment, and assimilate language skills through that experience).
2. The participants for this study included only native speakers of English and native speakers of Japanese. Therefore, the study is limited to only students from those two language backgrounds.

3. As noted above, and as is the case with any study in which the researcher participates in the "everyday world of the researched," the subjective views of the researcher (who is also the participants' Chinese-language instructor) may impact the conclusions of the study. However, the researcher of this study tried her best to be aware of her biases so that they did not interfere the data collection and analysis.

Definition of Terms

Alphabet-based language learner: This term refers to language learners whose first language uses an alphabet to write that language by "spelling out" the words which represent the thing or the idea.

Character-based language learner: This term refers to language learners whose first language employs written symbols that are pictographic or logographic in nature. One graphemic unit usually represents the meaning and the sound of an entire word.

Chinese characters: Chinese characters are the symbols used to write the Chinese language. All Chinese characters are square in shape, so they have come to be known as "square characters." Each Chinese character is pronounced as a single syllable, and has its own meaning. Many Chinese characters are expressed by combining two or more simple characters to form a new character with a new meaning. To learn Chinese characters, one must know the shape, the sound, and the

meaning of each character. The total number of Chinese characters is estimated to be more than 50,000. Of these, only 3,000 are used for ordinary, common purposes (He et al. 1981).

Learning strategies: Learning strategies are defined as behaviors, techniques, or actions used by learners to enhance their learning.

Language- learning strategies: Language-learning strategies are learning strategies applied to acquiring skills in a foreign language.

Learning-strategies training: This term refers to teaching students about learning strategies and how to use them. The purpose is to help learners to "consider the factors that affect their leaning and discover the learning strategies that suit them best so that they may become more effective learners; and to take on more responsibility for their own learning" (Ellis and Sinclair 1989, p.2).

Chapter Summary

Learning Chinese characters is a time-consuming and labor-intensive task. For some students, learning Chinese characters is a satisfying and rewarding experience. For others, however, it is a frustrating undertaking. This study sought to understand how students from both alphabet-based and the character-based groups learn Chinese characters through examining the learning strategies used in the learning of Chinese characters. Consequently, the study may provide insight and benefit for both Chinese-language instructors and their students.

This chapter included the introduction, background description, and description of the need for the study. The purpose of the study and the research questions were specified. Definitions of terms were provided, and the limitations of the study were described. The next chapter, Chapter two, reviews the literature related to the research topic, and Chapter Three will discuss the methodology for the study. Chapter Four will present the results of the study, and Chapter Five will draw the conclusions that the researcher believes are warranted based upon the research.

CHAPTER II

LITERATURE REVIEW

Introduction

Learning a foreign language is a complex process involving many interrelated factors. One of the primary goals of any language teacher must be to help his or her students learn the language as thoroughly and efficiently as possible. According to Oxford et al. (1990), one way of helping foreign-language learners is to make them aware of the various identified language-learning strategies, and to integrate training in appropriate language-learning strategies into the language curriculum. The ultimate goal of foreign-language education is to help students become effective, independent, and autonomous language learners (Wenden and Rubin, 1987).

Learning strategies are generally defined as behaviors, techniques, or actions used by learners to enhance their learning. Language-learning strategies are strategies applied to obtaining skills in a foreign language (Oxford and Nyikos, 1989). Taking Oxford and Nyikos' definition one step further, Tudor (1996) described language-learning strategies as the purposeful actions learners engage in, either consciously or unconsciously, with the goal of enhancing skills in speaking, listening, reading, and writing of a foreign (or second) language.

To better approach the question about how students learn foreign languages more comprehensively, this literature review will begin with a general discussion of the role of learning strategies within the paradigm of cognitive theory. It will

then discuss the two types of second-language knowledge (declarative and procedural) defined and described by Faerch and Kasper (1983). It will also apply Anderson's (2000) "three stages" approach to the learning process specifically to language learning. In addition, this chapter will present an overall review of various research studies on language-learning strategies that have been conducted over the past twenty five years. Finally, studies specifically related to Chinese-language learning will be discussed.

Theoretical Foundation for the Study

Learning-Strategies and Cognitive Theory

Cognitive psychologist Anderson (2000) described some of the cognitive processes as including imaging, organizing, inferencing, elaborating, deducing, and transferring. According to Anderson (2000), there is no distinction between learning strategies and cognitive processes, because both these areas focus on how learners store, retrieve, and acquire information while leaning a new knowledge or skill.

Weinstein and Mayer (1986) bifurcated short-term memory from long-term memory in their approach to describing how learners store new information. O'Malley and Chamot (1990) have aptly described "short-term memory" as "the active working memory that holds modest amount of information only for a brief period" and long-term memory as "the sustained storage of information, which may be represented as isolated elements or likely as interconnected networks" (p. 17).

Weinstein and Mayer (1986) described a four-stage process as the process through which information is acquired within the cognitive psychology paradigm. The four stages are: selection, acquisition, construction, and integration. During the selection stage, the learner concentrates and focuses on specific information of interest, and transfers that information into short-term memory. In the acquisition stage, the learner transforms information that already has been stored in short-term memory into long-term memory for permanent storage. In the construction stage, the learner makes connections and associations using information stored in both short-term and long-term memory to enhance and organize his or her understanding or retention of new ideas or concepts. In the integration stage, the learner actively seeks prior knowledge in long-term memory when learning new information, and transfers that knowledge to short-term memory. According to O'Malley and Chamot (1990), "selection and acquisition determine *how much* is learned, whereas construction and integration determine *what* is learned, and how it is organized" (p.18).

Drawing a connection between learning strategies and cognitive theory, Wenden (1987) stated:

> "[H]umans are processors of information. In very general terms, this means that information comes in through our sense receptors. At this time selected items of information are attended to, identified, and, then, moved into the short-term or working memory. In short-term memory a series of mental operations are applied to this

> information. Then the changed or modified product is stored in long-term memory to be retrieved when it is needed. . . . The techniques actually used to manipulate the incoming information and, later, to retrieve what has been stored are referred to as cognitive strategies" (p. 6).

Cognitive Theory Applied to Foreign/Second Language Learning

According to Faerch and Kasper (1983), language learners obtain two types of second language knowledge during the language-learning process: declarative and procedural knowledge. Declarative knowledge is implicit in nature, and consists of internalized second-language rules and memorized language chunks. Procedural knowledge is generally explicit, and consists of strategies and procedures employed by learners to process second-language information for improving their language skills.

To differentiate between these two types of knowledge, Lachman (1979) used a computer analogy to describe declarative knowledge as "stored data," while analogizing procedural knowledge to the software program. Paris and Barnes (1989) simply described declarative knowledge as knowledge about "what the term 'strategies' means," and described procedural knowledge as "understanding how to use strategies."

According to Anderson (2000), three learning stages are necessary for the learner of any complicated skill to progress from the stage of merely having the

declarative knowledge used to perform that skill to the "procedualized stage" (at which the performance of the skill becomes more automatic). Those stages are: 1) the cognitive stage; 2) the associative stage; and 3) the autonomous stage.

Anderson (2000) indicated that skill learning begins with the cognitive stage, in which learners are instructed how to do the task. Learners will also observe, try to figure out, or study the task by themselves. Anderson concluded that the cognitive stage involves conscious activity on the part of the learners, and the acquired knowledge at this stage is typically declarative knowledge. O'Malley and Chamot (1990) provide language-learning examples consistent with Anderson's observation: the memorization of vocabulary and the grammatical rules when learning foreign/second language speaking skills.

The second stage is the associative stage. At this stage, Anderson (2000) observes that errors and mistakes made by learners in the original stored declarative knowledge information are generally deleted and eliminated. The learner's ability to make connections among the various elements or components becomes stronger. This is the stage when the declarative knowledge is transformed into its procedural form. Focusing specifically on language learning, however, O'Malley and Chamot (1990) note that though language learners become more fluent at speaking a foreign language at this stage, such learners still consciously remember the "declarative knowledge" that contains the foreign-language's grammar rules.

The last stage of the learning process is the autonomous stage. Anderson (2000) indicated that at this stage the performance of the relevant skill becomes

almost automatic and can be executed effortlessly. Memory and conscious effort are less required on the part of the learner. Here, O'Malley and Chamot's (1990) language-learning-focused study agrees completely with Anderson's theory: At this stage, they observe, the language learner is able to perform the language understanding and speaking skills almost automatically and with little effort or difficulty.

The learning process involves many complex and interrelated elements and components, and learning strategies are an important part of that process. O'Malley and Chamot (1990) stated: "Learning strategies are complex procedures that individuals apply to tasks; consequently, they may be represented as procedural knowledge which may be acquired through cognitive, associative, and autonomous stages of learning" (p. 52).

Research History Regarding Foreign/Second-Language Learning Strategies

Perhaps a reasonable place to begin is with Wenden's 1982 and 1986 studies, which begin with an overarching observation essentially from a language teacher's perspective. According Wenden, in order to create the most efficient educational process, five types of "metacognitive knowledge" must be obtained: knowledge about (1) the language being learned; (2) student proficiency, (3) the outcome of the students' learning endeavors; (4) the role of the students in learning the target language, and (5) how best to approach the language-learning task. Other

studies have attempted to do precisely that. According to Rigney (1978) and O'Malley et al. (1983), language-learning strategies involve any kind of operations, steps, routines used by the learners to facilitate the obtaining, retention, retrieval, and use of information to learn language skills. In other words, language-learning strategies are "what learners do to learn and…to regulate their learning" (Rubin, 1987, p.19). In this section, I will briefly review some relatively recent research studies which have identified and described strategies used by learners in learning a foreign/second language.

Carton (1971) observed that language learners used what he called "inferencing" to obtain foreign-language skills. For Carton, "inferencing" signifies the use of available information to guess the meanings of new vocabulary, to make predictions, or to fill in other missing information. He compared the language-learning process to a general problem-solving skill in which the learner brings his or her prior experience and knowledge into the process of learning the new language.

Carton argued that "inferencing" was based on three different kind of "cues:" intra-lingual cues, inter-lingual cues, and extra-lingual cues. Intra-lingual cues are used to learn more about a new language when the learner already has some knowledge of the second language being learned. Inter-lingual cues are used to transfer and apply knowledge and information from the learner's native language to the target language, or from one language to another. Extra-lingual cues are used based on learner's knowledge about the real world to predict what is said in a

foreign language. These “cues” enable languages learner to utilized already-possessed knowledge to learn or improve their second-language skills.

Rubin (1975) focused her study on the strategies of self-described successful language learners and the learners’ characteristics. She made an assumption that once the strategies that the good language learners employed were identified, they could be made available more effectively to less-successful learners. According to Rubin, a good language learner is willing to take risks and to tolerate ambiguity and vagueness. She also concluded that three groups of strategies are commonly used by effective language learners: communication strategies, social strategies, and cognitive strategies. For Rubin, communication strategies consist of the cues of circumlocution and gesture. Social strategies include the action of seeking out opportunities to use the target language with peers or friends. Cognitive strategies involve guessing, inferencing, practicing, analyzing, categorizing, synthesizing, and monitoring. Her study indicated that all of these strategies were commonly used and exhibited by self-defined good language learners.

Continuing with her focus on language-learning strategies, Rubin completed another study in 1981. In this study, she divided language-learning strategies into two categories based on the processes of the deploying the strategies: direct strategies and indirect strategies. Direct strategies contribute directly to language learning, and include actions such as clarification, verification, monitoring, memorization, guessing, inducing, inferencing, deducing, and practicing. Indirect

strategies contribute indirectly to learning, and include actions such as creating opportunities to practice, planning, and evaluating one's own learning.

Oxford and Crookall (1989) described the various available learning strategies, and some other behaviors exhibited by learners attempting to improve their foreign-language abilities. Their findings were similar but more detailed than Rubin's (1981) study. Oxford and Crookall subcategorized direct strategies into: *memory strategies* for memorizing, restoring, and retrieving information; *cognitive strategies* for utilizing, transforming the language being learned directly; and *compensation strategies* for making up for inadequate knowledge of the language being learned. Although indirect strategies do not directly involve using the language being learned, they support and assist the learning of that language. According to Oxford and Crookall, the indirect strategies consist of *metacognitive strategies* for planning, arranging, and evaluating one's own learning; *affective strategies* for managing or handling the emotional ups and downs that inevitably accompany learning the new language; and *social strategies* for learning with others.

Oxford and Crookall thought that the direct and indirect strategies are equally important for learning foreign languages. They also noticed that all foreign-language learners use some of the above described strategies in attempting to learn a new language. Furthermore, they concluded that the more learners use the strategies, the better their language performance is likely to be.

In addition to studying the language-learning strategies themselves, one of the areas that has attracted language researchers' attention is the category of variables that affect language learners' *choice* of learning strategies. Oxford and Nyikos (1989) investigated the language-learning strategies employed by university students in learning foreign languages, and explored several variables (including the language being learned, gender, and degree of metacognitive awareness) that may affect learning-strategy choices. Their study indicated that university students used strategies that are useful for traditional foreign-language instructional environments, such as using structural knowledge, finding similarities between native and foreign languages, and being prepared for class. On the contrary, strategies that involved a concerted extracurricular effort to communicate in the new language were mostly avoided by the participants in Oxford and Nyikos' study.

Another finding from Oxford and Nyikos' study concerns the relationship between the potentially-affective variables and students' choices of learning strategies. They concluded that among all variables, motivation was the most powerful influence on the choice of language-learning strategies. They also discovered that highly motivated students used a wider variety of learning strategies, and that they used them more often than less-motivated students. Furthermore, the higher a student's self-perceived proficiency, the more frequently he or she used learning strategies. Students who had been studying the target

language for at least four years were also conscious about their use of learning strategies far more often than were less-experienced students.

Similar to Oxford and Nyikos' study, Ehrman and Oxford (1989) studied the relation between the selected language-learning strategies and a number of potentially affective variables that included gender, career choice, cognitive style, and various aspects of personality. Similar to Oxford and Nyikos' (1989) findings, Ehrman and Oxford concluded that female learners use language-learning strategies more often than males. However, Ehman and Oxford did not find positive support for their hypotheses with respect to the other potentially-affective variables they studied.

In addition to potential variables such as gender, career choice, cognitive styles, and various aspects of personality, research has also found that ethnicity has a strong influence on the types of learning strategies used by language learners. Asian students, for example, employ English-language-learning strategies that are different from the ones that Hispanic students employ (Politzer and McGroarty, 1985). According to Politzer and McGroarty, Asian students tend to prefer using rote memorization and rule-oriented strategies in learning the English language.

From a different cultural perspective, Park's study (1997) explored the use of English- language-learning strategies and the resulting English-language proficiency of Korean university students. Park's study provided evidence that the more students used language-learning strategies, the higher their TOEFL (Test of English as a Foreign Language) scores. His study also showed that among the six

categories of learning strategies, cognitive and social strategies were more predictive of high TOEFL scores than the other four categories. In addition, Park found that Korean students used metacognitive, compensation, and memory strategies more frequently than cognitive, social, and affective strategies.

While Oxford and Nyikos's (1989), Ehrman and Oxord's (1989), Politzer and McGroarty's (1985), and Park's (1997) studies explored variables affecting the learning styles of foreign-language learners generally, Sanaoui's (1995) study investigated actions taken by adult second-language learners to specifically learn vocabulary. In order to get a holistic picture of the issue, Sanaoui used two groups of case studies to conduct her research. The first group consisted on four case studies of English as a Second Language (ESL) students; the four participants were from Indonesia, Hong Kong, Japan, and Brazil. The second group consisted of eight case studies of French as a Second Language (FSL) students who were enrolled in a French-course.

Sanaoui concluded her study by reporting on the strategies and approaches the participants took to better retain their newly-learned vocabulary. These strategies and approaches included direct strategies such as repeating the vocabulary, using new vocabulary in a sentence, drawing pictures, using imagery, associating, and connecting new vocabulary with another word in the first or second language. In addition, indirect strategies such as social strategies, talking about the new vocabulary with someone, and "acting out" the new vocabulary were

employed by the participants in her study. Sanaoui, however, did not attempt to study which of the above-described strategies worked the best.

The process of visual word recognition has captured the attention and interest of cognitive psychologists (Benser & Humphreys, 1991). Koda's (1996) study defined "word recognition" as the process of obtaining citations and appropriate lexical meanings from a visual display of words. By testing and surveying first-year Japanese-language students, Koda concluded that Chinese and Korean students generally outperformed American students in the Japanese-language reading comprehension test. In addition, Koda's study revealed that the learner's first-language reading experience strongly influences "word recognition" skills in a second language.

Related Research Focused Specifically on Chinese Language Learning

One of the biggest challenges that university Chinese-language learners encounter is the learning and memorization of Chinese characters. Learning Chinese characters involves three aspects: pronunciation, shape, and meaning (Yin, 2003). In this section, studies related to learning Chinese characters will be discussed.

McGinnis' (1995) study focused on language learners' approaches and strategies that Chinese-language learners employ when learning new Chinese characters. Although inquiry into how students go about learning Chinese characters is still in its infancy, initial survey research by McGinnis has indicated

that Chinese-language learners employ rigorous memorization strategies in order to remember the new characters. In addition, he reported that the learners primarily used cognitive strategies, such as using flashcard drills, reflecting new characters over and over again, and attempting to associate pronunciation and meaning with the characters' visual characteristics.

While McGinnis (1995) explored strategies and approaches directed toward learning Chinese characters, Ke's (1998) study focused specifically on the effect of students' language backgrounds on their achievement in learning Chinese characters. Ke's sample included 150 first-year Chinese-language students. Among them, 85 were identified as heritage learners – those who were bilingual speakers of English and Chinese, and who had been exposed to some form of spoken Chinese at their home – and 60 were identified as nonheritage language learners – those who did not have family members speaking any form of Chinese. Contrary to the conventional perception, Ke's study indicated that language background did not have a significant effect on the participant's performance in character-recognition.

Chapter Summary

For many beginning learners of the Chinese language, learning to read Chinese characters is perhaps the most difficult educational task they have ever attempted. The research reviewed here helps to understand not only the learning process generally, but also the language-learning and Chinese-language learning processes (and their accompanying strategies) more specifically.

A number of the studies reviewed help also to define the importance of a number of language-learning strategies. These studies suggested that successful language learners use a variety of strategies to become more self-directed, and thereby more efficient at improving their language skills.

The works of Carton (1971) and Rubin (1975) of the seventies contributed to our understanding of language learning by identifying strategies both directly and indirectly contributing to language learning. To present more concrete evidence of how learners go about learning a new language in general, Oxford et al. (1989) provided information on various learning strategies.

In order to find the relationship between learners' first and second-language learning processes in the area of "word recognition," Koda (1996) suggested that learners' first-language reading experiences strongly influence the way they learn to read the second language. Sanaoui's (1995) study, although limited to the learners of English and French, investigated learners' strategies in learning new words. In a rare and valuable study, McGinnis (1995) surveyed Chinese-language learners, approaches and strategies deployed by learners in learning Chinese characters.

Both the studies by Oxford and Nyikos (1989) and Ehrman and Oxford (1989) concluded that language teachers should be aware of variables such as motivation, career orientation, gender, personality, language-learning goals, and major field of study, since those variables affect a language learner's instinctive choice of learning strategies. This awareness will enable language teachers to

design their strategy-training based both on an individual learner's need and an awareness of the types of strategies he or she is likely to instinctively favor.

Although the studies of various variables affecting language learning had been thoroughly investigated by Oxford and Nyikos (1989), Erhman and Oxford (1989), and Ke (1998), issues such as the learner's country of origin and/or cultural background have not been studied or investigated. The current research will focus on Chinese-character learning strategies employed by both students whose native language is alphabet-based and students whose native language is character-based. Most importantly, this study is intended to learn more about whether the similarities and differences in Chinese-character-learning strategies between the two groups form certain patterns or styles.

CHAPTER III

METHODOLOGY

This study is designed to compare the Chinese-character learning strategies employed by university students whose native language is alphabet-based with the strategies used by students whose native language is character-based. It also attempts to determine whether the two groups' preferred learning strategies form distinctive patterns. This chapter discusses the following: (1) the rationale for using a qualitative approach; (2) a general description of the case study methodology; (3) the procedures the researcher employed to collect data; and (4) the data analysis procedures employed in this study.

Traditionally, research on foreign-language education has been primarily carried out by using quantitative research methodology. However, the researcher concluded that in order to collect richer and deeper data regarding the unique experience of learning Chinese characters, the use of the qualitative case study methodology would provide a better means to collect data and elicit detailed information from the participants. Merriam (1998) described the focus of a case study as "holistic description and explanation" of a unique case.

The methodology used for the current study is case study, and is guided by the following over-arching question: Do the Chinese-character learning strategies employed by university students differ between Chinese-language learners whose first language is alphabetic and Chinese-language learners whose first language is character-based?

Case Study: An Overview

Merriam (1998) described a case study as "a thing, a single entity, a unit around which there are boundaries." (p. 27). At even a higher level of specificity, Gall, Borg and Gall (1996) defined "case study" as "the in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon" (p. 545). They concluded that researchers use the case study methodology for one of three purposes: (1) to produce detailed descriptions of a phenomenon, (2) to develop possible explanations of the phenomenon, or (3) to evaluate the phenomenon. According to Glesne and Peshkin (1992), case-study researchers often use procedures in which the primary organization is by themes or topics. Case-study researchers use highly individualized information-gathering techniques, such as in-depth interviews and intense observation, to collect information from the participants. Gall, Borg and Gall (1996) further described case study:

> [T]he researcher attempts to depict a phenomenon and conceptualize it. A good depiction will provide what is called **thick description** of the phenomenon, that is, statements that re-create a situation and as much of its context as possible, accompanied by the meanings and intentions inherent in that situation. . . Researchers also can add depth to their descriptions by searching for themes present in the

> phenomena. We define **themes** as salient, characteristic features of a case (p. 459).

According to Seliger and Shohamy (1990), descriptive case studies are effective for research into the foreign-language-development skills of individuals:

> The case study approach is used where the investigator is interested in describing some aspect of the second language performance or development of one or more subjects as individuals, because it is believed that the individual performance will be more revealing than studying large groups of subjects (p. 125).

Using second-language learning as an example, Fraenkel and Wallen (1996) suggested that case-study methodology helps researchers to gain insights into why some students learn a second language more efficiently than others. They stated: "The hope here is that through the study of a somewhat unique individual, insights can be gained that will suggest ways to help other language students in the future" (p. 453). Similar to Fraenkel and Wallen's view on case study, Seliger and Shohamy (1990) pointed out that the case-study approach is more likely to provide an "in-depth and detailed" description of how second-language skills develop in individuals because each individual has his or her own "idiosyncratic pathway" to develop language competence.

The main goal of this study is to better understand the language-learning strategies employed by Chinese-language learners. The use of descriptive case-study methodology in this research project provided an effective means of eliciting

in-depth and detailed information about the participants' unique experiences in learning Chinese characters.

As noted above, this case study focused on a Chinese language class in a small university. The students in this class had taken Chinese classes together for approximately one year, and were very familiar both with each other and with their instructor. The researcher was involved in, and in some sense, participated in the study. Because the researcher was the Chinese-language teacher, consistent contact and interaction with the students enabled the researcher to provide rich and detailed description for this case study.

According to Marriam (1998), "The bounded system, or case, might be selected because it is an instance of some concern, issue, or hypothesis" (p. 28). For this case study, the "bounded system" involved the researcher (myself), the students in the Chinese-language class, and the good rapport and relationships that had already been formed between us.

Validity and Reliability

Validity and reliability are important elements for both quantitative and qualitative research studies. According to Fraenkel and Wallen (1996), "validity" refers to the "appropriateness, meaningfulness, and usefulness" (p. 461) of the data the researcher collected. "Reliability" refers to the consistency of the collected data. Merriam (1998) stated: "Regardless of types of research, validity and reliability are concerns that can be approached through careful attention to a study's

conceptualization and the way in which the data were collected, analyzed, and interpreted, and the way in which the findings are presented" (p. 199).

To ensure the validity and reliability of the data gathered for qualitative research, Huchinson (1988) suggested that researchers compare and contrast data constantly during the process of data collection. This provides researchers with a continuing check on validity and reliability. In addition, Huchinson suggested that researchers use methods such as observations and in-depth interviews to verify and clarify the information received. Along similar lines, Merriam (1998) recommended that case study researchers use "triangulation" to verify and clarify data. According to Merriam, "triangulation" refers to the use of multiple methods of data collection and analysis. She further emphasized that "triangulation" strengthens both the reliability and validity of a case study.

This study used three methods to collect data. First, the in-depth interviews, using semi-structured questions, generated rich and detailed responses about the learning of Chinese characters from the participants. Second, using information from the participants' Chinese-character study logs, and third, direct observation of the Chinese-language classroom activities, enabled the researcher to compare, contrast, verify, and clarify the information received. This helped to confirm the validity and reliability of the data analyzed in the current study.

Population and Sampling

Patton (1990) pointed out that qualitative researchers tend to select the participants for their studies with a specific purpose in mind. He stated: “The logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research. . . .” (p. 169).

According to Fraenkel and Wallen (1996), there is nothing inappropriate about the use of the purposeful sampling method: “Researchers do not simply study whoever is available, but use their judgment to select a sample that they believe, based on prior information, will provide the data they need (p.101).

The population of this study consisted of students who were studying the Chinese language at a small, private, Methodist university in the southwestern United States. This university had approximately 4,000 undergraduate students. The university had decided to emphasize liberal arts studies to a greater degree than it had in the recent past. All undergraduate students were required to complete a set of general education courses. Foreign-language studies is one of the university’s general-education requirements. Students who are pursuing a Bachelor of Arts degree were required to complete twelve credit-hours of foreign-language classes. The foreign languages offered in the subject university were Chinese, French, German, and Spanish.

For the current study, only students who had completed both of the beginning-level Chinese courses were included in the population. Since the participants were chosen for their specific qualifications as Chinese-language

learners, the sample was purposefully selected to include those who would be most representative of both alphabet-based first- language speakers and character-based first-language speakers.

There were 11 students enrolled in the Intermediate Chinese class, consisting of four American students and seven Japanese students. After explaining in detail the nature and purpose of the research study, the researcher (who was also the Intermediate Chinese language instructor) asked for volunteers to participate in the study. Since those students had taken Chinese-language classes with the same instructor for two semesters, there was a substantial amount of good will, trust, and rapport between the students and the Chinese-language instructor. All of the students in that class enthusiastically expressed an initial interest in participating in the study. However, they were informed that only the four first-language alphabet-based students and four students from the first-language character-based group would be included in the study. All four American students in that class agreed to be included in the study. The first four Japanese students who submitted their signed consent forms were selected as the "first-language character-based" participants in the study. Thus, the sample consisted of eight students: four participants from the first-language alphabet-based group, and four participants from the first-language character-based group.

The participants were basically from two different cultural backgrounds: four American citizens whose native language is English, and four from Japan whose native language is Japanese. All eight participants had pre-university level

experience in learning foreign languages. The four Japanese participants had studied English as a foreign language in their native country. The four American participants had studied various western languages, such as French, German, and Spanish, in high school. These eight students were majoring in various subjects in the subject university: Humanities, Psychology, Business, Music, and Art.

Procedures for Data Collection

Before any students were selected for the study, and before any data-collection began, an application was filed with the University of Oklahoma Institutional Review Board. In addition, an application was filed with the Institutional Review Board of the subject university to request permission to conduct research and collect data on its site. Both applications included the topic of the research, a brief description of the study, and the participants' consent form. Upon receiving approval from both the University of Oklahoma and the subject university in the spring semester of 2003, the data-collection procedures began.

Merriam (1998) stated: "case study does not claim any particular methods for data collection or data analysis." She concluded: "Any and all methods of gathering data, from testing to interviewing, can be used in a case study" (p.28). However, Merriam (1998) supported the idea of using multiple sources to collect data for case studies. She stated: "By using a combination of observations, interviewing, and document analysis, the fieldworker is able to use different sources to validate and cross-check findings" (p. 137). For this study the researcher

employed three sources to collect data: 1) face-to face interviews with all participants; 2) participants' study logs; and 3) observations.

Interviews

In order to collect detailed descriptions about the Chinese-character-learning strategies of students studying the Chinese language, interviews were conducted with students who had completed the two beginning-level Chinese classes at the subject university, and who were enrolled in an Intermediate-level Chinese language class. To ensure that no one in the class felt "left out," all of the students (including the three Japanese students who were not participating in the study) were encouraged to participate in the face-to-face interview with the researcher/instructor. Those interviews focused on the personal experiences and reflections that each student experienced as a Chinese-language learner.

In order to protect the identity and confidentiality of the participants, a pseudonym was assigned to the participants so that their real names would remain confidential. All participants in the study were repeatedly assured that their identities, and the information they provided for the study, would be kept confidential within the bounds of the law. The interview questions are listed in Appendix A.

Study Logs

Over a four-week period, all students in the Chinese-language class that included the participants in this study were asked to keep a study log. In the log, the students recorded daily the strategies and approaches they took to the task of learning Chinese characters. In addition, they recorded the thoughts and feelings they experienced while attempting to learn Chinese characters in their study-logs. To ensure that the students would fulfill this assignment regularly and faithfully, a notebook, labeled "Chinese-character Study Log," was provided for each individual student. With the notebook in hand, the students would hopefully feel more obliged to complete this task.

The researcher checked with the class weekly to monitor the regularity of the students' progress in keeping up with their study-logs. At the end of the four-week period, the researcher collected the study logs from the class. However, only those students who had volunteered to participate in the study had their study-logs studied and analyzed by the researcher for purposes of this study.

Merriam (1998) considered personal documents such as diaries, letters, autobiographies, and travel logs to be reliable data sources for case studies. She stated that "[p]ersonal documents are a reliable source of data concerning a person's attitudes, beliefs, and view of the world," and that they "reflect the participants' perspective, which is what most qualitative research is seeking" (p. 117). Focusing specially on the use of participants' personal journals or study logs in foreign-language research, Oxford and Crookall (1989) stated: "Diaries or journals allow learners to record their thoughts, feelings, achievements, problems,

strategies, and impressions. While keeping diaries to study their own language learning, students become 'participant observers' in their own ethonographic research." Using participants' Chinese-character-learning study logs in this study not only provided information regarding character strategy use by the participants, but also a means to confirm the information received from the interviews.

Observation

Observations of classroom activities were conducted by the researcher to provide confirming data regarding the participants' statements in their interviews regarding their learning strategies, and the self-perceptions regarding those strategies reflected in the participant's study logs.

During the study period, the researcher constantly observed the participants' activities, behaviors, and reactions both while the characters were being actively taught in the classroom and while the participants were given other tasks involving working with Chinese characters. The researcher recorded the participants' reactions, facial expressions, and interactions with each other while they were engaged in learning new Chinese characters. After new characters were taught, the researcher sometimes asked the participants to write down the actions and steps they took to learn the characters, as well as the feelings and thoughts that went through their minds during the class.

Data Analysis

Analysis of the data was done continuously as the data were being collected. According to Glesne (1999), data analysis involves "organizing what you have seen, heard, and read so that you can make sense of what you have learned" (p. 130). In-depth, one-on-one interviews were conducted. In order to ensure accuracy on the part of the researcher, the interviews were audiotaped and transcribed in order to collect information on the Chinese-language learners' character-learning strategies. Key words, themes, and patterns related to the participants' Chinese-character-learning strategies were identified and analyzed. In addition, interviews were analyzed as to the participants' perceptions of any traits that were shared by "good language-learners," and of particular strengths or weakness that were perceived by the participants in themselves. The participants' Chinese-character study-logs were collected and carefully read and analyzed to summarize the themes and patterns of the Chinese-language learners' study habits as they went about the task of learning Chinese characters. Observational data were collected during the regular Intermediate Chinese class time, focusing on participants' reactions, non-verbal signals, and their interactions with each other while they were engaged in the task of learning new Chinese characters and reading Chinese texts.

The researcher consistently reflected on the data that had been collected. The information received from the participants was categorized and synthesized. Patterns were sought in the data, and the data were interpreted toward those ends.

The Role of the Researcher

According to Glesne and Peshkin (1992), there are two different roles that the qualitative-methodology researcher plays: as a researcher to collect and analyze data, and as a learner to listen to his or her participants. In his 1999 study, Glesne further defined the role of qualitative researchers as "interpreters who draw on their own experiences, knowledge, theoretical dispositions and collected data to present their understanding of the other's world. As interpreters, they think of themselves not as authority figures who get the 'facts' on a topic, but as meaning makers who make sense out of the interaction of their own lives with those of research participants" (p. 157).

Stake (1995) thought that the role of the case-study researcher may include that of teacher, participant observer, interviewer, reader, storyteller, advocate, artist, counselor, evaluator, and consultant. However, Stake (1995) concluded that the researcher's most important role should be that of teacher, because: "[t]he intention of research is to inform, to sophisticate, to assist their increase of competence and maturity, to socialize, and to liberate. These also are responsibilities of the teacher" (p. 91).

During the data-collection and analysis phases of this study, the researcher made the effort to listen intently to the participants' comments, statements, and experiences of learning Chinese. The researcher also interpreted the collected data in a manner that integrated her own experience as a learner and a teacher, her

knowledge in teaching the Chinese language and culture, and her theoretical disposition to present this case study.

Chapter Summary

In this chapter, the research methodology, the purposive sampling methods, and the participants from the character-based and alphabet-based language backgrounds were described. Data-collection procedure and design and the role of the researcher were also considered and described.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The research question for this study is: Do the Chinese-character learning strategies employed by university students differ between Chinese-language learners whose first language is alphabet-based and Chinese language learners whose first language character-based?

The goal of this study was to better understand the Chinese-character-learning strategies used by American students, whose native language is alphabet-based, and by Japanese students, whose native language is character-based. In addition, the study attempted to discover whether the Chinese-character learning strategies used by each of the two groups formed distinctive patterns.

For this project, I employed a qualitative case study approach. To collect data I conducted interviews, reviewed student study logs, and observed the students. I interviewed eight participants who had completed two beginning-level Chinese language courses. These participants included four American students, whose native language is English, and four Japanese students, whose native language is Japanese. Each participant was asked to participate in a one-on-one interview session, which lasted approximately one hour. The participants were also asked to keep Chinese-character study logs. Observations of classroom activities were conducted by the researcher to provide confirming data regarding the

participants' statements in their interviews regarding their learning strategies and the self-perceptions regarding those strategies reflected in the participants' study logs.

With one exception, all the interviews with the participants were conducted during the summer of 2003. Because one of the Japanese participants had to return to Japan immediately after the spring semester of 2003 ended, I was unable to schedule an interview with her until the fall of 2003. All interviews with the participants were audio-taped and transcribed. The participants' study logs were collected and examined. The themes and patterns that emerged from the interviews, study-logs, and the researcher's observations were studied and analyzed.

This chapter has four subcomponents. First, it presents composite information with respect to the background of this case study. Second, it records a profile description of each participant in the case study. Third, it examines the language strategies that the participants used to learn Chinese characters. And fourth, it compiles and briefly explores some additional themes and information that emerged from the participants' interviews and study logs.

Description of the Chinese Language Class

This case study focused on an intermediate-level Chinese language class in a small, private, Methodist university located in the southwestern United States. The study was conducted during the spring semester of 2003. That semester began in mid-January and ended in early May. There were 17 weeks of classes that

semester. This particular Chinese class met four days a week (Monday, Tuesday, Wednesday, and Thursday), from 2:30 to 3:30 in the afternoon. The class usually met in a conference room located on the second floor of the university's Arts and Sciences building. There was a large conference table in the middle of the room, with 12 comfortable chairs arrayed on the perimeter of the table. A bookcase filled with foreign language dictionaries occupied one of the walls. The room had one chalkboard on its west side and a white board on its south side. In addition, the room contained both TV and VCR sets. There were floor to ceiling windows on one side of the room. However, to avoid distraction form outside activities during class hours, these windows were usually closed with blinds. All in all, this room provided a relaxing and casual atmosphere for language classes.

There were 11 students enrolled in this class, of whom four American and seven were Japanese. Since these students had taken Chinese classes together for approximately one year, they were very familiar with each other, and some of them had become close friends. The atmosphere in the classroom was always pleasant and friendly. There was good rapport between the students and the instructor, who was also the researcher for this study. The students showed a great deal of care and respect toward one another.

One of the Japanese students described her impression of the class by saying: "I always want to be in class because many Japanese are there, and also I think that others (American students) in class are so good compared with my other classes . . . . Some professor[s], I don't know intentionally or unintentionally, make

the atmosphere very stiff and uncomfortable. I think class atmosphere is very important to learn new things easily and comfortably." Another Japanese student commented: "Even [the] American students we have in class are very open to learn[ing] other cultures, so it's very comfortable in class. I always feel comfortable with them." One of the American students said simply: "Everything in class is fun."

Instruction in the classes focused on four basic language skills (speaking, listening, reading, and writing), with strong emphasis on the oral proficiency and listening skills. Typical classroom activities included: character learning; oral or written grammar drills; listening, reading, and writing comprehension activities; and oral presentations. The activities outside of the classroom were generally operational and functional communication activities, such as ordering meal in a Chinese restaurant, shopping at a Chinese grocery store, and social communication, such as engaging in conversations with native Chinese speakers.

To teach Chinese characters (to which I generally devoted each Monday's class), I, the instructor, first asked students to write new characters on the chalkboard. Second, I explained the origin, the meaning, and the function of each new character. Relevant information such as "radicals" (common components) for the characters and phonetic component were also provided. Third, students were asked to practice pronunciation of the characters using either "substitutional drill" or "chain drill" to help them in memorizing both the sound and the function of the characters. Last, I asked students to use the new characters in sentences. Everyone

was required to share his or her sentences with the rest of the class. The process was usually time-consuming.

In addition to learning characters and the text from the textbook (entitled *Practical Chinese Reader II*) during regular class hours, students were required to present a weekly short speech on a particular topic (i.e. “A Trip,” “My Favorite Restaurant,” “A TV Program,” *etc*.). They were also asked to practice Chinese conversation regularly with both their classmates and their instructor. From time to time, the class would watch Chinese movies and make Chinese dumplings together after class.

Apart from the regular class meetings, students were encouraged to participate in activities with the local Chinese community. For example, on one occasion, students from this class were invited to perform a Chinese song on stage for a Chinese New Year celebration. The Chinese community received the performance with applause and laughter, and a number of community members commented on the goodwill thus engendered. Other cultural activities in which the students participated included a Chinese New Year Celebration, a Mid-Autumn Moon Festival, a Dragon Boat Festival, Chinese acrobatic shows, Chinese food festivals, and the like.

The following section includes a description of the eight participants. The first section describes the first-language-alphabet-based participants. The second section describes the first-language-character-based participants.

Description of the Participants

The First-Language-Alphabet-Based Participants

John, a 23-year-old music major from a small farm village, was planning to pursue a career as a concert guitarist. He was an out-going, mature, courteous, friendly, and hard-working student. He enjoyed meditation and studying Asian philosophy. John especially enjoyed meeting international students on campus, and practiced his Chinese whenever he met his Chinese friends. In Chinese class, he was always active and enthusiastic. From time to time, he acted as class clown.

Because John actively and frequently sought out the opportunity to practice speaking Chinese, his speaking skills developed very rapidly. However, although he used flashcards to improve his Chinese-character recognition, John's character-reading skills were just above the average for the class. John thought that learning Chinese had improved his learning skills in general. He said: "I am becoming a better learner in everything I do."

David was a serious 22-year-old international business major. He was ambitious and well-disciplined. He planned to go to law school after completing his bachelor's degree. David spent one semester in Washington, D.C. doing an internship for one of his state's United States Senators, and worked part-time for a law firm throughout his Chinese studies. David liked to draw abstract images on his textbook and on his test papers; he said that it helped him to think and to remember things better.

Encouraged by his father, David decided to minor in Chinese. He said: “I chose Chinese because it is the most appealing to me, and I think that it would be the most worthwhile for me in the future.” David loved speaking Chinese but disliked learning to read Chinese characters. His preferred character-learning strategies were using flashcards, reading Chinese text out loud, and watching Chinese movies. Although David’s character-reading skills were only about average, his skill at speaking Chinese was the best in the class.

Mary was a transfer student from one of the local junior colleges, and a humanities major. She was very excited to learn that the university offered Chinese courses, and enrolled in one of them even though her academic advisor was concerned about her heavy course-load during that semester. Her passion was reading literature and writing short stories. She was a Harry Potter fan, to the point that for Christmas she decorated her dormitory room modeled on a scene from a Harry Potter story. She worked as the resident assistant at the university’s women’s dormitory. Her hope was to graduate from college as soon as possible so that she could travel around the world. Her career goal was to be a writer. She read regularly in both English and Chinese.

During her interview, Mary said: “I have studied French for five years and I really didn’t absorb any of it, and I liked studying languages so I wanted to study something a little bit different. So Chinese was what I decided.” Mary considered herself to be an “auditory learner”. She thought that Chinese listening and comprehension was the easiest part of her Chinese-language studies. As to the

reading Chinese characters, she described her learning by saying: “I’m not a visual learner at all . . . . I have to really study and be able to attach the image to the characters.” Mary made herself her own Chinese dictionary to help her learn the characters.

Lily was a 19-year-old music major, specializing in viola. She was a hard-working and serious student. She told me that she inherited a free and adventurous spirit from her mother. She was passionate about the Chinese language and culture. She was very excited that the university’s orchestra (of which she is a member) was going to China to perform for Chinese audiences. She said that she was going to be the translator for her fellow orchestra members while visiting China. Lily was very proud of the fact that she was learning an “exotic” language (Chinese).

Lily described her motivation for studying Chinese as follows: “Chinese sounds really cool, and it’s not read phonetically and I thought that it’s like secret code . . .” In addition to using flashcards, Lily worked on learning Chinese characters by associating new words with pictures or stories that she made up.

The First-Language-Character-based Participants

Yoko, a 25-year-old Japanese student, was from Tokyo. She was a double-major in psychology and philosophy, and a minor in Chinese. Before coming to the United States., she was a partner in a hair-dressing salon. Unlike most of the Japanese women I have taught, Yoko was outspoken, straightforward, and opinionated. While in Chinese class, she often acted as a “big sister” to her fellow

classmates. She often volunteered to share her study notes, tutor her peers, and organize study groups.

Yoko said that she took Chinese because "some of [her] friends said that this course is very fun and very useful." She routinely spent time organizing her study notes and handouts in order to share them with her classmates. Yoko's preferred learning style was writing the characters repeatedly. She said that that helped her to memorize the shape and the meaning of a particular character simultaneously. Yoko spoke Chinese with a strong exotic accent. She especially had trouble with the pronunciation of the "s", the "x", and the "sh" in pinyin [Chinese phonetics].

Miki was a 21-year-old humanities and art major, also from Tokyo. Like Yoko, Miki was minoring in Chinese. She was a quiet and shy student. Early during her first semester of Chinese-language studies, she showed very little interest in the class. Quite often she showed up late, and she frequently turned in her assignments late. After two weeks of classes, however, her attitude changed. She became much more active and happy in the class, showing great enthusiasm for learning both the Chinese language and Chinese culture. Miki was the only child in her family. She often talked about her parents and her American boyfriend (whom she had met in the United States).

Miki's passion was Chinese literature and Chinese art. In addition to writing Chinese characters repeatedly, Miki often asked the Chinese instructor about

characters that were not included in the textbook. She enjoyed writing essays in Chinese.

Kentaro was a 22-year-old international business major, once again from Tokyo. He, too, had decided to become a Chinese minor. Kentaro was mature, intelligent, and diligent, and was the only student who never missed a class during three semesters of Chinese-language classes. After receiving his business degree, Kentaro wanted to go back to Japan to help his family run a kimono (Japanese traditional dress) shop. He was very proud of the fact that he was a new father, and often used his daughter as his Chinese-speech topic in class. In addition to studying business, Kentaro's passion was photography and film-making. He and his friends made a short film documenting Japanese students' life on an American university campus. The film was presented to the public on campus, and received high praise from the university community.

Kentaro said that his motivation for studying Chinese was to do business with China in the future. He also mentioned that he loved Chinese culture. Kentaro frequently checked internet sites to acquire information about China. In addition to writing characters, Kentaro enjoyed reading the Chinese dictionary. He said that using the dictionary enhanced his knowledge about the different meanings and usages of particular characters. Kentaro was an excellent character-reader, and his speaking skills were the best among his Japanese peers.

Hideki was a quiet student from a town in northeastern Japan famous for ice festivals and winter sports. He spoke very infrequently in class. Whenever

questioned in class, he answered in only a few words. Hideki had a difficult time deciding on his major; he changed it virtually every semester before finally settling on business. Hideki enjoyed playing soccer; his greatest wish was to go to watch a world-cup soccer game one day. He often used his childhood life in northeastern Japan as a basis for his weekly Chinese-speech topic.

While talking about his motivation for studying Chinese, Hideki answered simply: “I want to do business in China.” He considered his Chinese listening skill to be “sometimes poor, sometimes good.” Hideki learned a lot of Chinese expressions by watching Jackie Chan’s movies (in Chinese). He said that he felt most comfortable with reading Chinese texts, and thought that his speaking skill was the worst among his Chinese-language skills. Upon encountering a new character, Hideki said that he tried to learn it by relating it to Japanese.

On the basis of my observations of the participants as both a researcher and their teacher, there appeared to be some correlation between the participants’ Chinese-language performance and their majors. Generally speaking, students majoring in music (John and Lily) performed very well in speaking skills, especially in the areas of pronunciation and Chinese “tones.” This may well have been due to their aural skills and related areas of studying. Their ears appeared to be quite sensitive to sounds and rhythm.

Kentaro, Hideki, and John, who were business majors, also performed well at speaking Chinese. However, unlike the music students, the specific speaking areas in which they excelled were more reflected in practical and daily

conversation. They usually tended to use short and simple phrases or sentences to describe a thing or an event. This may well be due to the fact that the practical usage of the Chinese language for business purposes appeared to have been their primary motivation for studying the Chinese language.

Mary, Yoko, and Miki, the humanities students, were good character readers and writers. They usually performed very well in reading comprehension tests and in writing short essays. They also did very well in speaking Chinese in class. They were also the students who usually presented the most interesting, elaborate speeches in class. Again, this may have been a function of broader, more humanities-oriented, creative aptitudes that they brought to and developed in their humanities-oriented studies.

The next section of this chapter focuses on the themes and patterns that emerged from the participants' interviews, study logs, and observation notes.

Responses to the Research Question

Do the Chinese-character learning strategies employed by university students differ between Chinese-language learners whose first language is alphabet-based and Chinese- language learners whose first language is character-based?

Chinese characters constitute the written and spoken Chinese language in an irregular and unsystematic way. To be able to effectively read Chinese, students need to learn at least 3,000 written characters. Because the Chinese writing system does not coordinate written characters with pronunciation, one of the most difficult

Chinese-characters-learning tasks is to associate or connect the characters' pronunciation with their shape. To be able to speak or understand Chinese, the learner must memorize each character's sound. Each character has its own sound. As a result, to learn written and spoken Chinese, three steps are involved: learning the shape of each character, learning the sound of each character, and learning the meaning of each character (Yin, 2003).

When asked about what they thought was the most difficult Chinese-learning task, three out of four American participants in this study responded that memorization of the shape of the characters was the most difficult task. One of the American participants, however, identified character-pronunciation as the most difficult task. Interestingly, all four Japanese participants agreed that character-pronunciation was the most difficult Chinese-learning task.

Although, as groups, the alphabet-based American participants and the character-based Japanese participants held different views on the most difficult aspect of learning Chinese characters, there were similarities as well as differences in their use of strategies and approaches to assist them in the character-learning tasks.

After reviewing the interview transcriptions and the participants' study logs, I extracted statements from these sources that I considered to be significant and important to the study. I also checked the information from the interviews and the study logs to confirm that they were consistent with my observation notes. Four general themes related to the learning strategies students used emerged in response

to the research question: 1) organizing and planning one's study; 2) actively utilizing sources and techniques to enhance learning; 3) comparing, contrasting, and connecting; and 4) evaluating, assessing and monitoring one's progress.

Organizing and planning one's study

All of the participants stated that they regularly planned and organized their Chinese language study, and considered that to be an important element in their learning. One American participant specifically mentioned the time spent working out study schedules and outlining study plans as a critical factor in improving her Chinese. Six participants mentioned designing their own "study methods" to make their learning of Chinese characters more efficient. When asked to elaborate on some things he would do to help in his studies, one American participant reported his step-by-step study plan. He stated:

> Since we are covering more material now, and the amount we should know is greater, I need to spend more time reviewing the lessons. Therefore, I'll read the text, then new words, [and] exercises throughout the chapter all out loud. This helps my aural skills and reading skills simultaneously. It also helps [my] comprehension skills, because I have to know what I am saying.

In addition to describing the specific organizing and planning that this student brought to his studies, this statement revealed that the student was consciously

aware that his strategy of reading Chinese out loud greatly enhanced his listening, reading, and comprehension skills.

Another American participant reported that she created a system with "flashcards" to help improving her learning. She also monitored her progress by testing herself. She wrote in her study log:

> I used some of the flash cards that I made at the beginning of my first semester of my [studying] Chinese. I made them on four (actually) five different colors of cards, and I quizzed myself on those for close to half an hour. I think that the system I use is very helpful, because I color-coded the tones to help me remember them better. This is the system I have been using:
>
> first tone – red cards
>
> second tone – blue cards
>
> third tone – green cards
>
> fourth tone – yellow cards
>
> particle – white cards[1]

To make her learning more efficient, one American participant organized the vocabulary from each lesson in the textbook to create her own personal dictionary. She stated: "Because our book didn't have a dictionary sort of thing in the back, which is hard to do with Chinese, I made sort of a dictionary for myself

[1] As noted above, the spoken Chinese language employs four "tones" in pronunciation. Different "particles" are used to indicate certain type of questions, or to indicate a new situation that has just recently occurred.

where I wrote down all the words. And so, if I was having problems, it was a lot easier for me to flip through that than to flip through the book."

While evaluating her own progress, one American participant not only criticized herself for not studying hard enough, but also planned a solution to compensate for that problem. She stated:

> I've been watching the [Iraq] war coverage, so I haven't been studying. Bad excuse, but true, and now I'm even more behind. I'm doing my homework for this week, and I have to say that writing new words ten times really helps with learning them. Even if you don't remember how to write [them] later, it's much easier to recognize them in text.

Knowing that he was a little bit behind in his studying, one American student adjusted his study plan to compensate for the perceived inadequacy of his learning. He said: "I was bombarded with Chinese characters, and gradually became confused with the sounds and meanings. Lately, I increased the amount of time I spent on using flashcards. I found that helps a lot." One Japanese student simply replied: "I spend a lot of time to organize information and also to make paper . . . . I have to organize, and read it and comprehend it."

In summary, all participants agreed that planning and organizing their study helped them become more efficient and effective in leaning the Chinese language.

Actively utilizing sources and techniques to enhance one's learning

In addition to planning and organizing their studying, all of the participants put their study plans into action by actively utilizing various sources and techniques to learn Chinese characters. When asked to elaborate their "methods" or "ways" of learning Chinese characters in detail, participants described a great variety of approaches and strategies they employed. One American participant replied: "Writing the characters out repeatedly is the absolute greatest thing I can do to remember what they look like and recognize in text." She continued: "I write them over and over, and I think about what it means while I write it because I remember all the strokes." Another American participant said: "Repetition is one of the best tools for me when memorizing characters and grammar structures. Seeing the new characters and sentence structures in many different sentences as often as possible is the best way for me to learn and retain knowledge."

Using flashcards seems to be one of the most popular approaches for American students. All four of the American participants mentioned using self-made flashcards to help them study characters. One said: "If a character is very hard to memorize, I will make flashcards and study with [them] until I know the character." Another described using flashcards in detail. He stated:

> OK, what I do is I always make note cards and I put the character on one side and on the back I put the pinyin (Chinese phonetic) . . . . I'm starting to learn how to use the word as well [as] speaking it, and then I put the translation and so . . . I can learn two things at once. And then I just go through my note cards after I make them

> and then. OK, I need to know this word, I need to try to get familiar with it and after a couple of days I can be familiar with it and know it . . . . Then . . . to get a really good understanding, I'll put [it] with [the] new lesson, and just read through it any say, OK, oh, what's this word, I think I know it and it's this. So that's how it works. It's always the same . . . . I think if I didn't have notecards, I wouldn't know my Chinese, so it helps me a lot . . . . Note cards are definitely where it's at, and reviewing the text.

Some participants also pointed out that they practiced recognizing newly-learned Chinese characters by reading Chinese-character materials. One American participant wrote in her study log:

> I read over the *Oklahoma [Chinese] Times* tonight and I tried to pick out characters that I recognized. In articles such as food advertisements and little (simple) announcements. I, I recognized a lot of the characters and could even get the main point and the gist of the topic of the article. I wish I could write characters as well as I read them (which is still difficult).

Some participants also reported using the dictionary to help enhance their character-acquisition skills. Using a dictionary to learn information about a new character seemed to be more popular among Japanese students than among American students. One Japanese student wrote in her study log: "Today I made [a] speech for class. I looked up [in the] Chinese/English dictionary (online) and tried

to find words that I haven't learned. I also look up [words in the] Chinese textbook to find words that I already learned. And made my speech."

All four of the Japanese participants reported that writing characters repeatedly was their most-frequently-used method of learning Chinese characters. One Japanese student stated: "I wrote Chinese characters as many as possible, until I memorize them. And then I wrote each Chinese character and wrote pinyin (Chinese phonetics) without seeing the textbook." Similar to the response from the above participant, another Japanese student said: "I write Chinese characters four times."

Although writing characters repeatedly was a popular strategy for all Japanese participants and one American participant, not every student thought it to be an effective strategy. One of the American student commented: "I don't find [that] writing the character out a bunch of times ever helps me learn it that much."

Comparing, contrasting, and connecting

Making language comparisons, cultural contrasts, and knowledge connections are also mentioned by all participants as one type of strategy that they frequently used to improve their learning. To memorize new characters, some participants compared the new "target" character with characters they have already learned. Others used imagery to enhance their memorization. One of the American participants said: "I will try to find something that reminds me either of a character I've already learned, or a visual idea I'm familiar with, to help me with my

characters." Another American student said: "Usually, I will look at the character, then look at the English meaning. I will do this several times, saying the English word in my head. If possible, I will try to see if there are any symbols I recognize as other words. If so, then I try to somehow connect it with the present word." Echoing the use of a similar approach, one of the Japanese students stated: "I try to make[a] connection between new words and the words I have learned."

One American participant made an association between the appropriate pronunciation of a Chinese character and the actual sound of an object to help memorize the pronunciation of the new character. She reflected in her study log: " I'm not doing well with direction words ("top," "right," etc…) so I made flashcards with just the pinyin (Chinese phonetics) and English. 'East' is easy to remember now because when the sun rises in the east, your alarm clock goes 'dong'."

In addition to language learning, participants also made cultural comparisons while studying Chinese. One American student commented:

> They [Chinese classical idioms] are kind of hard for me to understand, because Chinese humor and American humor are two very different types of funny. I don't ever get Chinese jokes, and so learning Chinese idioms is already difficult for me to understand, and they pose a problem when trying to directly translate into English. I hope that as I get better at knowing the language I will also improve in learning the culture and the reasoning behind the idioms.

Making a comparison between learning Chinese characters and playing American football, one American participant described:

> Your mind, your eyes, and brain are so used to the characters. It's like playing football for the first time. You don't know what you are doing but after a while you are used to catching the ball and running with it. You get good at it. So your brain, your tongue, kind of developed. Since you have done it before you can do it again. It eventually does become a lot . . . easier. I can probably memorize ten Chinese words in 30 minutes if I study hard enough.

Evaluating, assessing, and monitoring one's progress

All participants mentioned that they evaluated, assessed and monitored their progress from time to time to ensure that they were keeping up with their Chinese learning. One American participant described monitoring his study:

> I stay away from trying to learn too much at one time because I feel that we have a lot to cover in each lesson . . . . I just focus on what is it I need to do right now and I'll study these characters . . . . I'm always on track with this is what I need to be doing, this is what I need to study for now. . . . I won't spend too much time with supplementary words, unless I have a lot of time and I really want to learn those words (supplementary words).

While evaluating her writing skills in Chinese, one American participant wrote in her study log:

> Tonight I had homework to do that was to be due next week. I avoided the characters and did all the assignments in pinyin (Chinese phonetics). It is so much easier for me. When it comes to writing the date or my name, and other simple characters – the characters do not intimidate me. They are no problem. When working at a character, I can write its meaning in pinyin with no problem; then I translate it to English.

The same participant also made a self-assessment regarding her learning habits. She commented:

> I would like to have better skill in practicing the strokes of my Chinese characters. They are off, and I think this may be part of the problem of why I can't remember how to write them. I have no system or pattern that I go by. And I think that makes it a lot harder to remember the order of the strokes.

All participants mentioned testing themselves from time to time. One Japanese participant wrote: "As for new words and characters, I write them down several times and recite them as I write. When I finish with the writing, I like to cover up the pinyin [Chinese phonetics] in the book, leaving the English translation exposed. I randomly pick a word and say the pinyin. After I do that for quite some time, I cover the pinyin and try to concentrate on the characters, the meaning, and

then the pinyin . . . .” Another Japanese student commented: “For me, Chinese isn’t too difficult a language if I practice every day and keep reviewing. This daily activity doesn’t have to be very extensive – so long as I look at it or speak it, I can stay on top of the grammar and the new words fairly well.”

In addition to the general and commonly-used strategies (organizing, actively strategizing, comparing, and monitoring) discussed above, one learning pattern was distinctively noticeable only among Japanese participants. Frequently, before and after the class, I observed that Japanese participants liked to gather together to compare class notes, ask questions of each other, and share information.

From the researcher’s perspective, there are three possible interpretations of this behavior. First, the Japanese students were studying in a foreign country. The may well have felt more comfortable getting together as a group to study, discuss, or acquire information concerning their academic studies, even though this might not be their usual practice in Japan. However, being able to meet together with their fellow country-men and women, and communicating in their native language may have helped them reduce any feelings of being isolated, alienated, or helpless because of cultural and language barriers.

The second possible interpretation has to do with the unique characteristic of one of the Japanese participants in the study. As mentioned earlier in the description of the participants, Yoko was an older and quite mature lady who acted as a “big sister” to the Japanese students in class. She often organized study groups and provided leadership. In addition, she helped the other Japanese students with

problems that they encountered outside of the classroom. Although Yoko was a woman, all the other Japanese students seemed comfortable with what might have otherwise been perceived as a "bossy" attitude. They all followed the Japanese tradition of respect for and obedience to elders. They also liked Yoko because of her genuine and sincere caring and helping personality.

A third possible interpretation of the Japanese students' collective behavior may result from the perception that the Japanese culture both models and rewards working together and intra-group cooperation. Under this possibility, the Japanese students may have studied as they did even without the centering force provided by Yoko's actions. Of course, identifying precisely *which* of these three possibilities best explains the Japanese students' more cooperative language-studying practices is beyond the scope of this study.

Besides working together among themselves, the Japanese participants mentioned seeking help from foreign friends and their teacher. One student said: "My Taiwanese friend is learning Japanese. So I ask him Chinese. He ask[s] me Japanese." Another Japanese student said: "I often ask [the] professor the words I couldn't pronounce."

The Participants' Motivation and Learning Anxiety

In addition to the learning strategies used by the participants in learning Chinese characters, two interesting themes emerged from the interviews with the participants, the review of their study logs, and observation. When asked about

their general experience in learning Chinese, all participants particularized their motivation for studying Chinese at all. In their study logs, both American and Japanese students also expressed anxiety over and frustration with the Chinese-learning process. Although motivation and learning anxiety are not directly related to the use of language-leaning strategies, they indirectly affect language-learning nevertheless.

Motivation

While commenting on the importance of motivation to language-learning, Gardner (1985) stated: "Attitudes and motivation are important because they determine the extent to which the individuals will actively involve themselves in learning the language . . . . The prime determining factor is motivation" (p. 56). Oxford and Nyikos also concluded in their (1989) study: "Learners who are highly motivated to learn a language are likely to use a variety of strategies" (p. 295).

When asked to comment about their general experience with and attitude toward learning Chinese, one American participant talked about his motivation for studying the language. He said:

> My dad thought that it would be a good idea, because he believes that there are not many people studying Chinese. It's going to be a marketable language to learn. I always wanted to learn the language. It seems that one billion people speak Chinese, so I think that it would probably be a good language to learn.

Another participant said: “I love the culture.” Another said: “It’s a challenge.”

Interestingly, two American female participants and two Japanese female participants said that they were motivated by their interest in and appreciation of Chinese culture. One American male student said that he studied Chinese because of its challenging nature. Two Japanese male students and one American male student all expressed the belief that learning Chinese would help their future careers.

In summary, various participants were motivated by their career goals, their interest in Chinese culture, and the challenging task of learning an “exotic” language. In other words, they all had a sense of purpose in studying that language. They all believe that learning Chinese will benefit their future.

Learning Anxiety

In their study logs, the participants were asked to write down anything that related to Chinese-language learning, as well as their thoughts, feelings, “ways,” and daily approaches to the learning of Chinese. Interestingly, all participants (including students who performed very well in Chinese-reading skills) wrote about their frustration and periodic anxiety in their study logs. One American participant wrote: “I don’t understand why I can’t ever remember certain characters.” The same participant also wrote: “I have an extremely hard time trying to learn all the new words. It is so overwhelming, and I even get very frustrated when trying to

read it sometimes, because it tends to make me see just how little I know of the basic characters."

Another American participant expressed similar frustration in trying to study new characters. She wrote: "For some reason, "wan" and "yu" look exactly the same to me when they are not near each other. The word "tang" I really don't get. It doesn't even look like Chinese to me. It looks like Sanskrit or something else like it.

Still another American student described how her emotional responses sometimes prevented her from making progress in her studies. She poured out a sad story in her log. She wrote: "It's been more than a week since I've sat down to study (which is VERY bad, and I'm now very behind), because a good friend of mine killed himself last week. Every time I tried to sit down and study, I end up thinking of him instead. I'm behind in my homework and reading, which is scary, because this moves pretty fast." Needless to say, it would appear that under the circumstances, this student's anxiety was unconnected to the specific study of Chinese.

Although the Japanese students seemed to have an easier time in studying Chinese characters, they nevertheless expressed anxiety as well. One student said: "One of my friends couldn't understand my pronunciation. I don't know why . . . . Maybe it's because they are not familiar with my accent." The other said: "Some characters are amazingly complicated. I don't understand why so complicated . . . .

Sometimes it's very difficult to write characters." Another Japanese student commented: "I get very frustrated if I can't remember a word I had learned before."

For a constellation of reasons, all of the participants in this study experienced a high degree of learning anxiety during their semester of learning Chinese. However, in no case did it deter their will to learn Chinese. It seems that learning anxiety pushed them to study even harder toward their goals. This facially negative experience seems to have turned itself into a positive force in the process of their leaning Chinese.

Chapter Summary and Overview

In this chapter, the research question was restated and the results of the study were presented. The resulting section focused on three areas. First, background information regarding the case study, and a brief description of each participant, were presented. Second, the themes and patterns emerged from interviews, study logs, and the researcher's observations were reported. Third, some additional themes that emerged were described.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

One of the most complex tasks in learning the Chinese language is the learning of Chinese characters. To be able to read in Chinese, students need to learn at least 3,000 written characters. Learning Chinese characters involves three steps: learning the shape of each character, learning the sound of each character, and learning the meaning of each character (Yin, 2003).

Observations by the researcher of her students' learning progress had led to the conclusion that learning Chinese characters was both easy and fun for some students, for others it was the most difficult educational task they have ever attempted. My primary goal as a Chinese-language teacher was to do my best to help my students learn the Chinese language more completely and efficiently. According to language experts, one way of helping foreign-language learners was to integrate appropriate language-learning strategies into the language curriculum (Chamot and Kupper, 1989; Hsiao and Oxford, 2002; Oxford et al. 1990).

This study examined the Chinese-character learning strategies employed by both American students whose native language is alphabet-based (English) and Japanese students whose native language is character-based (Japanese). The focus was to investigate the similarities and differences in strategies used by the two studied groups.

The need for this study grew from an examination of research into foreign-language learning strategies. During a review of the literature, the researcher noticed that, while there was a great deal of research into strategies used by learners learning European languages (such as English, French, German, and Spanish), only limited research had been done with respect to Chinese-language learning strategies. Although recent Chinese-language learning research had begun to focus on Chinese-character acquisition, none had attempted a comparative study of Chinese-learning strategies employed by learners whose native-language is alphabet-based as contrasted with those whose native language is character-based.

This study used descriptive case-study methodology to search for themes or patterns that arose from answering the research question. In-depth one-on-one interviews, participants' study logs, and observations of the classroom activities of students in an intermediate-level Chinese language class were used to collect data. The sample, drawn from the population of a small, private, southwestern Methodist university, consisted of eight students who had completed two beginning-level Chinese classes.

The purpose of the study and the procedures that it would utilize were explained by the researcher during a regular session of an Intermediate Chinese language class. Permission was obtained from the participants to conduct interviews with each of them individually. Observations of the classes took place during the spring semester of 2003. Individual interviews were conducted during the summer and the fall of 2003.

Research Question

This study was guided by the following overarching question: Do the Chinese-character learning strategies employed by university students differ between Chinese-language learners whose first language is alphabetic and Chinese-language learners whose first language is character-based?

The language-learning themes that emerged from this study fell into four general areas: (1) organizing and planning one's study; (2) actively utilizing sources and techniques to enhance learning; (3) comparing, contrasting, and connecting; and (4) evaluating, assessing and monitoring one's progress. In the process of examining the participants' use of learning strategies which fell within each of those strategy-types, the researcher concluded that the participants' usage of those strategies was consistent with what might have been expected based on the literature related to this study; that literature includes Rubin's (1981) direct and indirect language learning strategies, and Oxford and Crookall's (1989) description of the six basic language-learning strategies. This study also concluded that there were both similarities and differences in strategy use between alphabet-based American students and character-based Japanese students with respect to their learning of Chinese characters.

Strategies Used by the Participants in Learning Chinese Characters

Learning strategies are generally defined as behaviors, techniques, actions, or approaches used by learners to enhance their learning. Anderson (2000) concluded that there is no distinction between learning strategies and cognitive processes, because both focus on how learners store, retrieve, and acquire information while learning new knowledge or a new skill. According to Oxford and Nyikos (1989), language-learning strategies do in fact apply to obtaining skills in a foreign language. Rubin (1981) divided language-learning strategies into two categories based on the processes of strategy-deployment: direct strategies (*e.g.*, inducing, inferencing, deducing, guessing, and practicing), and indirect strategies (*e.g.*, planning, evaluating, and creating opportunities to practice). Direct strategies contribute directly to language learning. Indirect strategies contribute indirectly to such learning. Rubin (1981) also concluded that good language learners use both direct and indirect strategies to enhance their language acquisition.

Direct Strategies and Indirect Strategies

For this study, participants' from both the alphabet-based and character-based groups used both direct and indirect strategies to learn Chinese characters. For direct strategy use, both the alphabet-based and character-based participants reported using various approaches (using flashcards, using dictionaries, practicing writing characters, etc.) to the task of learning characters. In addition, both groups of participants used techniques such as making connections, association, and comparison of the new characters (or information) with characters that have already

been learned, with other already-learned information, or with their own native language and culture.

For indirect strategy use, both groups reported that they regularly planned, organized, and designed their Chinese-language study, and considered such activities to be an important element in their studies. The participants also mentioned that they evaluated, assessed, and monitored their progress from time to time to ensure that they were keeping up with their Chinese learning. Although these strategies (organizing, planning, evaluating, assessing, and monitoring) do not affect their progress in learning Chinese characters directly, they nevertheless guided students in their learning, and increased their sense of responsibility. As a result, those strategies enhanced the participants' learning.

In addition to direct and indirect strategy use, both sets of participants in this study (though in varying degrees) used other types of language-learning strategies defined by Oxford and Crookall. According to Oxford and Crookall (1989), there are six types of language-learning strategies: memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies. For learning Chinese characters, three of Oxford and Crookall's six strategies were actively employed by both the alphabet-based and the character-based participants. Those three types of strategies were cognitive strategies, metacognitive strategies, and memory strategies.

The Participants' Use of Cognitive Strategies

The "cognitive strategies" defined by Oxford and Crookall (1989) are strategies involving practicing, receiving and sending messages, repeating, analyzing and reasoning, transferring, translating, and creating structure for input and output. Both the alphabet-based and character-based participants used cognitive strategies to learn characters. However, their approaches and techniques of using cognitive strategies were quite different. The American participants reported that they learned Chinese characters most effectively through actively using self-made flashcards. They also frequently practiced new characters in sentences, or simply looked at the new characters over and over again. The Japanese students, in contrast, reported that they preferred the more traditional learning style (writing Chinese characters repeatedly) to help them memorize the new characters. They stated that when they encountered a new character, they wrote the character over and over again until they remembered both its shape and meaning. Although writing characters repeatedly was a popular strategy for all Japanese participants and one American participant, not every student thought it to be an effective strategy. It seemed that most American students considered the repeated writing of characters to be time-consuming and ineffective. One of the American students commented: "I don't find [that] writing the character out a bunch of times ever helps me learn it that much."

Using flashcards seemed to be one of the most popular cognitive strategies for the American participants in the study. All four of the American participants mentioned using self-made flashcards to help them study characters. However,

none of the Japanese participants talked about using flashcards as part of their study.

The Participants' Use of Metacognitive Strategies

In addition to using the cognitive strategies described above, both sets of participants also used metacognitive strategies in varying degrees to help them learn Chinese characters. Metacognitive strategies include behaviors used for arranging and planning one's learning, setting goals and objectives, organizing, seeking practice opportunities, self-monitoring, and self-evaluating one's progress in language-learning (Oxford and Crookall, 1989).

Participants from both the alphabet-based and character-based groups reported utilizing some types of metacognitive strategies such as centering, arranging, planning, organizing, monitoring, and evaluating one's learning. As a general rule, the American students appeared to be more forward and clear about their use of metacognitive strategies than were the Japanese students. Most of the Japanese students gave positive answers when asked whether they used metacognitive strategies in their study of Chinese. However, the researcher was unable to elicit specific descriptions regarding those strategies used by the Japanese participants.

The Participants' Use of Memory Strategies

Memory strategies were the most frequently used Chinese-character-learning strategies by both the alphabet-based and character-based groups. Oxford (1990) defined "memory strategies" as "techniques specifically tailored to help the learners store new information in memory and retrieve it later" (p. 404). Memory strategies involve strategies including grouping, associating, elaborating, and using imagery (Oxford and Crookall, 1989).

Both the alphabet-based and character-based participants indicated that they used sub-components of the studied character, and that they attempted to associate the new character with learned characters or their native languages. The American participants, however, seemed to be able to expand this tactic further as to making connections with images, stories, or sounds that reminded them of the new characters.

Although the Japanese participants also used similar memory strategies to learn Chinese characters, they strategically tended to adhere to a more traditional repetitive-memorization style of learning. They indicated that they preferred to repeat the new word mentally over and over again when they encountered it.

In summary, the memory strategies that the participants reported using suggested that they are persistent in learning Chinese characters. Connecting, associating, self-testing, memorizing, using images, using character components, and using flashcards were frequently applied by the participants generally to assist them in learning new characters. Some participants used a greater variety of approaches than others.

Other Strategies Used by the Participants

In addition to cognitive strategies, metacognitive strategies, and memory strategies, two other types of Oxford and Crookall's strategies were reported to be used by three participants in the study: compensation strategies (*e.g.*, inferencing, guessing, or using synonyms) and social strategies (actions involving other people in the language-learning process). Interestingly, the use of those strategies was in both instances reported by Japanese participants. It seems that the American students generally considered the learning of Chinese characters to be a private and individual matter. For the Japanese students, on the other hand, reaching out to other students and being inquisitive were also part of their Chinese-learning tactics.

In one noteworthy aspect, the findings of this study are consistent with the literature related to this study. All participants employed both the direct and indirect language-learning strategies defined by Rubin (1981). In addition, they used cognitive, metacongitive, and memory strategies categorized by Oxford and Crookall (1989). All participants reported that they learned Chinese characters by actively using techniques such as planning, organizing, self-evaluating, self-assessing, practicing, self-testing, comparing, connecting, and so on.

Although, in general, both groups of participants employed more or less similar strategies, the American participants seemed to prefer using flashcards, reading Chinese texts, practicing new words in sentences, and using imagery to learn characters. In contrast, the Japanese students seemed to prefer highly

traditional and memory-based strategies, such as writing the characters repeatedly and using dictionaries. This, again, is consistent with related literature, which indicates that Asian students tend to prefer rote memorization strategies (Politzer and Mcgroarty, 1985). The other difference between the two groups lies in their relative flexibility in using learning strategies. There is indication of this in both the interviews and the participants' study logs, where the alphabet-based participants reported using a greater variety of techniques or approaches than did the character-based participants.

The differences in preference of strategy use between the character-based and the alphabet-based groups may well have been influenced by the educational style and systems used in the participants' countries of origin. Generally speaking, the Japanese educational system continues to emphasize a "traditional" style of learning, in which rote memorization, repetition, and cooperation are given priority. In addition, characteristics such as persistence, patience, and discipline are traditional cultural Japanese characteristics, and are strongly encouraged and promoted in the Japanese educational system to this date.

On the other hand, today's American educational system often focuses on the learners' analytical skills, competitiveness, and creativity. Perhaps as a partial consequence of the above factors, the American participants in this study demonstrated greater learning-techniques flexibility and employed a greater variety of strategies in their learning of Chinese characters.

One final phenomenon observed by the researcher was the correlation of the character-reading performance of the members of the two groups with their strategy usage. In general, and perhaps unsurprisingly given some basic similarities between Japanese and Chinese characters, the character-based Japanese participants out-performed the alphabet-based American participants in reading comprehension (understanding the meaning of the Chinese text). But the American students seemed to do better than Japanese students in the task of pronouncing the characters correctly.

Generally speaking, the alphabet-based participants who could recognize a character could pronounce it. In contrast, knowledge of the meaning of a character, would not necessarily enable the Japanese participants to pronounce it. This may imply that the strategies (using flashcards, reading characters out loud repeatedly, practicing the characters in various contexts, etc.) that the alphabet-based participants employed more frequently are effective in learning the shape and the pronunciation of the characters, but the strategies (writing characters repeatedly, and using dictionaries) employed by the Japanese students are more effective in learning the shape and the meaning of the characters. On the other hand, however (and as noted above), there are some basic similarities between Chinese and Japanese characters, in that Japanese written language uses some traditional Chinese characters to give meaning to a particular idea or concept.

Recommendations for Future Study

This case study on the experiences and learning strategies used by Chinese-language learners focused on a relatively small group of Chinese-language learners, and was limited to participants whose native language was either English or Japanese. Moreover, it was limited to university students studying at a small private university in a medium-sized city in the southwest.

Future research on Chinese-language learning strategy use might include learners from other language backgrounds (*e.g.*, Spanish, French, Arabic, or Korean). This additional knowledge could be used to benefit language students from various language backgrounds. Furthermore, it could better prepare Chinese-language educators with respect to the use of language-learning strategies in order to help their students who have first language backgrounds other than English or Japanese learn Chinese more efficiently. It may be anticipated that the application of such knowledge to our ever-more-diverse classroom will be increasingly important in the future. In addition, such research might be expected to help confirm or rebut the tentative conclusion of this study that a positive correlation exists between the utility of the types of strategies disproportionately employed by the Japanese participants and those participants' disproportionate success in reading comprehension. Future research involving Chinese-language learners whose first language is character based, but other than Japanese, and which shares no definitional similarities with Chinese characters-meanings, might provide a comparative test-group to help test the researcher's learning-strategy/character-meaning hypothesis.

Second, future research might also sample Chinese-language students who are pursuing their studies in large American cities, with large Chinese, or Chinese-American populations who employ the language in public settings on a daily basis. Such an environment could well provide opportunities for both alphabet-based and character-based learners to experiment with still other strategies outside of the classroom, or to redeploy the strategies that they used in this study in varying measures. In addition to providing a data set impossible to obtain in the present study, that, too, could help to verify or falsify the tentative conclusions of this study.

Third, future research might also sample Chinese-language learners whose first language is either alphabet-based or character-based but who are what are known as "heritage learners." Such learners, irrespective of nationality and first language, are those who are ethnically and culturally Chinese, and who may come from home (or other) environments in which spoken and/or written Chinese are used regularly by others as either a first or second language. The results of such research could also help to confirm, rebut, or qualify the tentative language-learning-strategy conclusions suggested by this study.

Finally, valuable research is yet to be performed on Chinese-language learners who are either older or younger than the university-aged participants in this study. While addressing a very complex problem (including early-childhood-education and adult-education issues) and perhaps adding the additional variable of motivation, research into the language-learning techniques used by those learners

will also likely generate increasingly-important results as more post-university adults seek to learn Chinese for business purpose and more primary and secondary schools begin to offer Chinese-language classes for business and cultural reasons.

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APPENDIX

Appendix A – Interview Questions

Appendix B – IRB Informed Consent Form

APPENDIX A

INTERVIEW QUESTIONS

Appendix A

INTERVIEW QUESTIONS

- How long have you been studying Chinese?
- What are your reasons for studying Chinese?
- How many hours do you spend each week studying Chinese outside of class?
- Can you describe your Chinese listening skills?
- Can you describe your Chinese speaking skills?
- Can you describe your Chinese reading skills?
- Can you describe your Chinese writing skills?
- Which one of the four language skills do you consider to be the most difficult task in learning Chinese?
- Can you describe in general terms your classroom experience in learning Chinese?
- How many Chinese characters can you recognize?
- What are the techniques or methods that you use to memorize Chinese characters?
- What do you do when you encounter a new Chinese character?
- Besides the Chinese language, have you ever learned another foreign language? [If so, please tell me about that language-learning experience.]

- How would you describe your reading skills in your native language?
- Can you describe your reaction at your first sight of Chinese characters?
- Do you like to draw, paint, or doodle?

APPENDIX B

IRB INFORMED CONSENT FORM

Informed Consent Form for research being conducted under the auspices of the University of Oklahoma-Norman Campus and Oklahoma City University

LEARNING CHINESE CHARACTERS: A COMPARATIVE STUDY OF THE LEARNING STRATEGIES OF STUDENTS WHOSE NATIVE LANGAUGE IS ALPHABET-BASED AND STUDETNS WHOSE NATIVE LANGAUGAGE IS CHARACTER-BASED

Ju-Chuan Arrow, Principal Investigator

Dr. Frank McQuarrie, Faculty Sponsor

The purpose of this research is to contribute to the body of knowledge regarding the study strategies and techniques that Chinese-language students employ while attempting to learn to read Chinese characters, and to explore the differences in the application of such strategies (if any) between students whose native language is alphabet-based and those whose is characters-based. It is being conducted as part of the requirements to complete a dissertation under Dr. Frank McQuarrie's direction. This project is designed to help Chinese-language instructor to better understand the relationship between students' reading skills and learning habits to help their students learn to read Chinese more efficiently.

If you decide to participate in this project, you will be asked to participate in an initial preparatory meeting of about half an hour, to keep a study log for a four-

week period; and to participate in one interview session which will last approximately an hour. With your permission, the interview will be audio-taped to ensure that the information is gathered accurately.

There is no foreseeable risk to your participation in this project. Your participation will provide valuable information for helping Chinese language educators to develop more effective teaching methods in teaching the reading of Chinese.

Your participation in this project is strictly voluntary. Refusal to participate will involve no penalty in school or otherwise. You may withdraw at any time without penalty as well. All information from this project, including the interview and audio tapes, will be kept in a secure place by the principal investigator, will remain confidential within the limits of the law, and will be destroyed at the conclusion of the investigation. A pseudonym will be assigned to both you and your current academic setting so that your real name and location will remain unknown.

If you have any questions about this project, please contact me at (405) 521-5854, or my Doctoral Committee Chair, Dr. Frank McQuarrie, at (405) 523-1523.

Ju-Chuan Arrow

Doctoral Student, Instructional Leadership and Academic Curriculum

CONSENT STATEMENT

I agree to take part in this research project. I know what I will be asked to do and that I can stop at any time. I [check one] (__) *consent* (__) *do not consent* to the audio taping of my interview session.

_____

_____

Signature Date